WPX ENERGY ROCKY MOUNTAIN LLC

ALLEN POINT FIELD

NOTICE OF COMPLETION REPORT FOR

AP 34-1-696 PRODUCTION PIT REMEDIATION # 8792

Prepared For:

1058 County Road 215
P.O. Box 370
Parachute, Colorado 81635

Prepared By:

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

INTRODUCTION

The purpose of this Notice of Completion report – for the closure of the AP 34-1-696 Production Pit (COGCC Facility ID number 422998; hereinafter referred to as AP 34-1-696 – is to provide detailed information and result analysis for the previously submitted and approved remediation number 8792, Colorado Oil and Gas Conservation Commission (COGCC) Site Investigation and Remediation Workplan, Form 27. This report will provide the documentation necessary to demonstrate a comprehensive and diligent investigation of the pit and adjacent environment which was obtained as described and in accordance with all appropriate county, state and federal rules and regulations.

The subject Form 27 was submitted electronically on September 24, 2014. Preliminary approval to proceed with closure of the subject pit was issued by the COGCC and obtained by WPX Energy Rocky Mountain, LLC (WPX) on December 3, 2014; at which time the aforementioned remediation number was issued. Closure activities began on May, 20 2015 and were concluded on May 27, 2015. Information included in this report includes but is not limited to; field screening results, laboratory analytical, subliner soil Investigation, soil treatment, and liner recycling.

EVACUATION OF PIT CONTENTS

Produced water and free liquids were removed from the pit utilizing a vacuum truck and managed at WPX centralized E&P waste treatment facilities. Once the liquids were removed from the pit, the residual pit contents remaining on the liner were removed using a pressure washer and vac truck and managed at the Parachute Centralized E&P Waste Management Facility (COGCC facility # 149015)..

BACKGROUND SAMPLING

Three grab samples were collected from the undisturbed soil surrounding the pad. All three samples were analyzed for arsenic, as well as an additional analysis at one location which included inorganic parameters listed in COGCC Table 910-1. Refer to Table 4 and Appendix 2 for background sampling results.

PIT LINER INVESTIGATION AND INTEGRITY ASSESSMENT

The pit liner consisted of a four layer system. These layers included: a 12mm poly synthetic material, a felt fabric, a tarpaulin textile, and a poly synthetic net. The liner system did not identify any visible tears or rips prior to removal.

PIT LINER REMOVAL

Once the pit liner was cleaned of residual pit contents, the entire liner system was removed from the pit. Trace amounts of liquids were identified under the liner system, but no odor or sheen was detected and was suspected to be from the precipitation from the previous days. A trackhoe was utilized to pull the liner off the ground surface and out of the pit. The liner material was stockpiled on site where it was compacted, bailed and processed for transport to alandfill.

EVALUATION OF PIT SUB-SOILS

After the liner was removed, the pit sub-soils were evaluated for evidence of contamination. In doing so, the pit was divided into five quadrants in order to accurately characterize the pit as a whole by investigating individual quadrants. The five quadrants were named by their geographical direction in relation to the pit bottom and are defined in Figure 1.

For each quadrant, soils were visually inspected for impacts and field screened using a PetroFlag Hydrocarbon Detection Unit (PetroFlag) in order to identify any areas of impact. In addition, special consideration was paid to areas where visual impacts were observed through a more detailed investigation process utilizing the PetroFlag and the Photoionization Detector (PID) field screening instruments. Figure 1 outlines the initial sub soil evaluation and Petroflag field screening results.

FIGURE 1: INITIAL FIELD SCREENING RESULTS AND PIT SAMPLE IDENTIFICATION

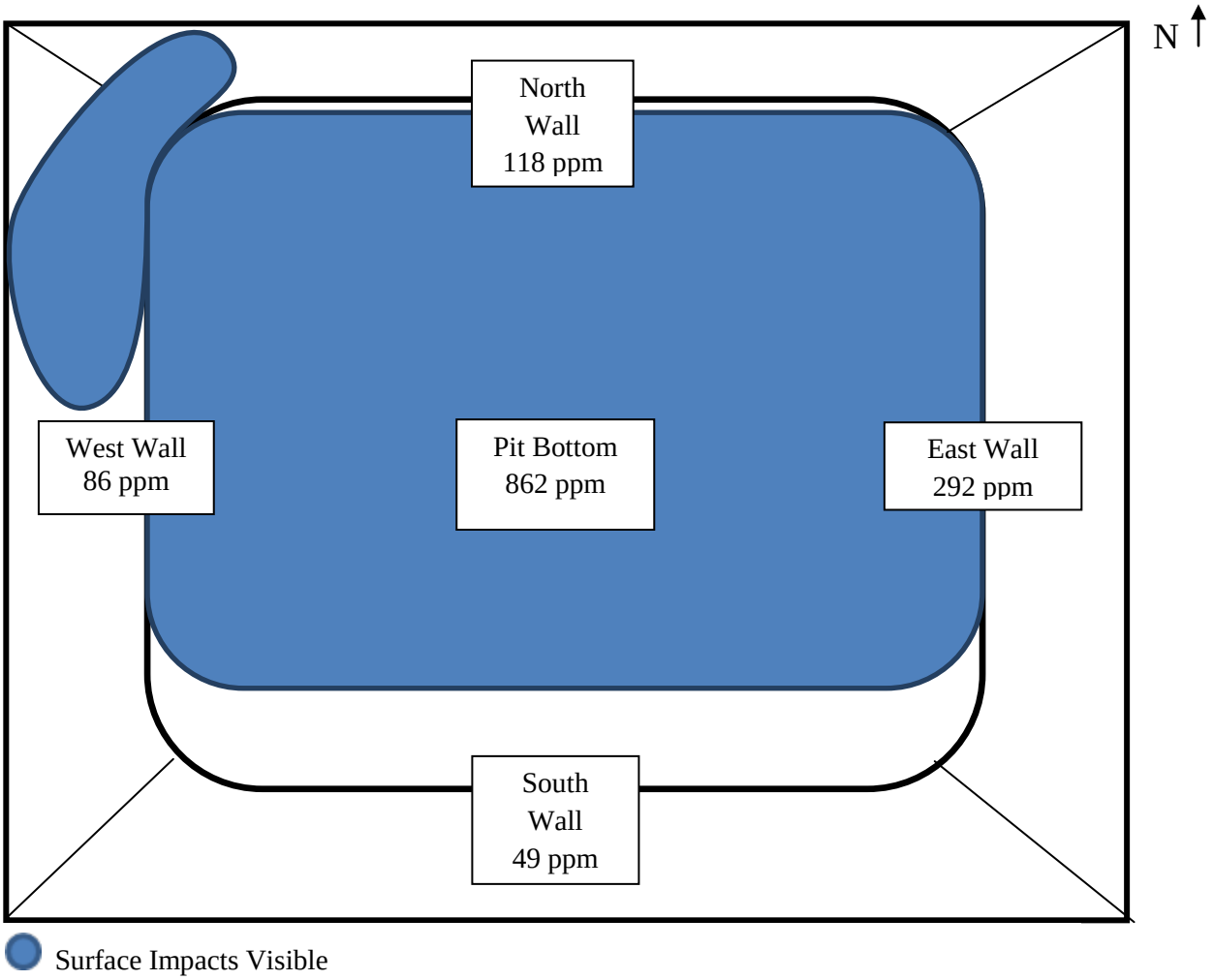


TABLE 1: PETROFLAG© FIELD SCREENING RESULTS

Sample ID	Result (0-6'')
North Wall	118
South Wall	49
East Wall	292
West Wall	86
Pit Bottom	862

Note: All results are in mg/kg
Highlighted numbers indicate areas that warranted additional inspection and analysis

Based on the results of the field screening provided in Table 1 and Figure 1, in addition to visual observations, it was determined that the soil on the pit bottom as well as the adjacent north and west side walls contained hydrocarbon concentrations which exceeded standards set forth in COGCC Table 910-1; remediation activities were necessary.

REMEDIATION ACTIVITIES

Pit excavation activities began May 20, 2015. A trackhoe was utilized to excavate the contaminated soil from within the pit. The excavated material was transferred via loader to an onsite bermed containment cell for treatment.

Initially the track hoe excavated three pilot hole along each side wall to a depth of approximately six inches to ensure the walls were free of impacts and to facilitate confirmation sampling. Pilot holes were also dug across the pit bottom at the lowest point in the pit as well as in areas where visual impacts were observed in order to delineate the vertical extent of the impacts to depth.

Excavation started on the pit bottom in order to delineate the vertical extent of the impacts to depth. The surface soil along the bottom consisted of saturated sandy silt. Moist, discolored soil was present to a depth of approximately two feet below the pit bottom surface. Below said depth, a sandstone bedrock was encountered and impacts were no longer observed. PetroFlag© field screen results indicated that the hydrocarbon concentrations were below the 500 mg/kg COGCC Table 910-1 threshold for the respective

soil horizon. The trackhoe excavated and stockpiled impacted material from the pit bottom to a depth of approximately two feet, where clean native soils were observed.

On May 21, 2015, excavation continued to remove impacted soil from the north and west walls and the norther pit bottom. Through visual observations and field screening with the PID meter, impacted soils were observed above a sandstone layer from the west wall to the lowest point in the pit bottom located in the northeast corner of the pit. Additional excavation was required to remove impacted soils from the northern end of the pit bottom, at which point field screen readings indicated that hydrocarbon concentrations were below COGCC Table 910-1 thresholds.

Upon receiving analytical results from the excavation on May 21st,2015, it was discovered that diesel range organics (DRO) slightly exceeded COGCC Table 910-1 thresholds on the eastern wall. Excavation continued on May 27, 2015 by removing an additional foot of material and placing it within containment. Field screening of the east wall indicated the soil was well below the threshold criteria outlined by COGCC Table 910-1 and an additional confirmation sample was collected. Additional sample analytical is provided in Table 3.

Based on confirmation analytical results, all impacted soils have been sufficiently removed and no additional excavation was required. Confirmation samples were collected and analyzed for COGCC Table 910-1.

- Confirmation samples were collected in accordance with Rule 905.b.(4), from all four walls at a position that was centered vertically and horizontally. These samples were collected for confirmation of compliance of COGCC Rule 910 for hydrocarbon concentrations; as well as verification of field screening analysis. One additional grab sample was collected from the base of the pit, which included the low point of the base to be analyzed for full COGCC Table 910-1, to demonstrate compliance in accordance with Rule 905.b.(1).
- A Trimble Geo XT 2011 was used to satisfy requirements as outlined in COGCC Rule 215 for collecting GPS locations of each confirmation sample location from the pit walls and pit bottom.
- Visual inspection of the pit bottoms, field screening techniques, and sampling procedures were followed in accordance with WPX Pit Closure Plan (COGCC document #2313312).

SAMPLE ANALYSIS

Sampling was performed in accordance with WPX Pit Closure Plan, Phase IV, Task 2. See attached Table 2 for summary of initial excavation analytical results. Additional detailed provided in Appendix 1. Table 3 provides additional DRO analysis for the eastern wall that required additional excavation (Raw data can be found in Appendix 1).

BACKFILL MATERIAL

Material utilized to backfill the pit will be the original excavated soil from construction of the pit. The soil is currently stockpiled northeast of the pit near the entrance of the pad.

- The soil will be placed in five foot lifts and will not be compacted beyond the point of making an impenetrable layer but sufficient to suppose subsequent operations and prevent subsidence.
- The pit will be reclaimed in accordance with the COGCC 1000 Series Rule in addition to all SUA/COA's per the land owner.

EXCEPTIONS TO COGCC TABLE 910-1

The only exceedances with regards to COGCC Table 910-1 were within the inorganic and arsenic samples. WPX is requesting that an allowance for arsenic be considered as it is relative to background arsenic levels, as well as inorganic parameters being capped with 3ft of native soils.

STOCKPILED SOILS MANAGEMENT

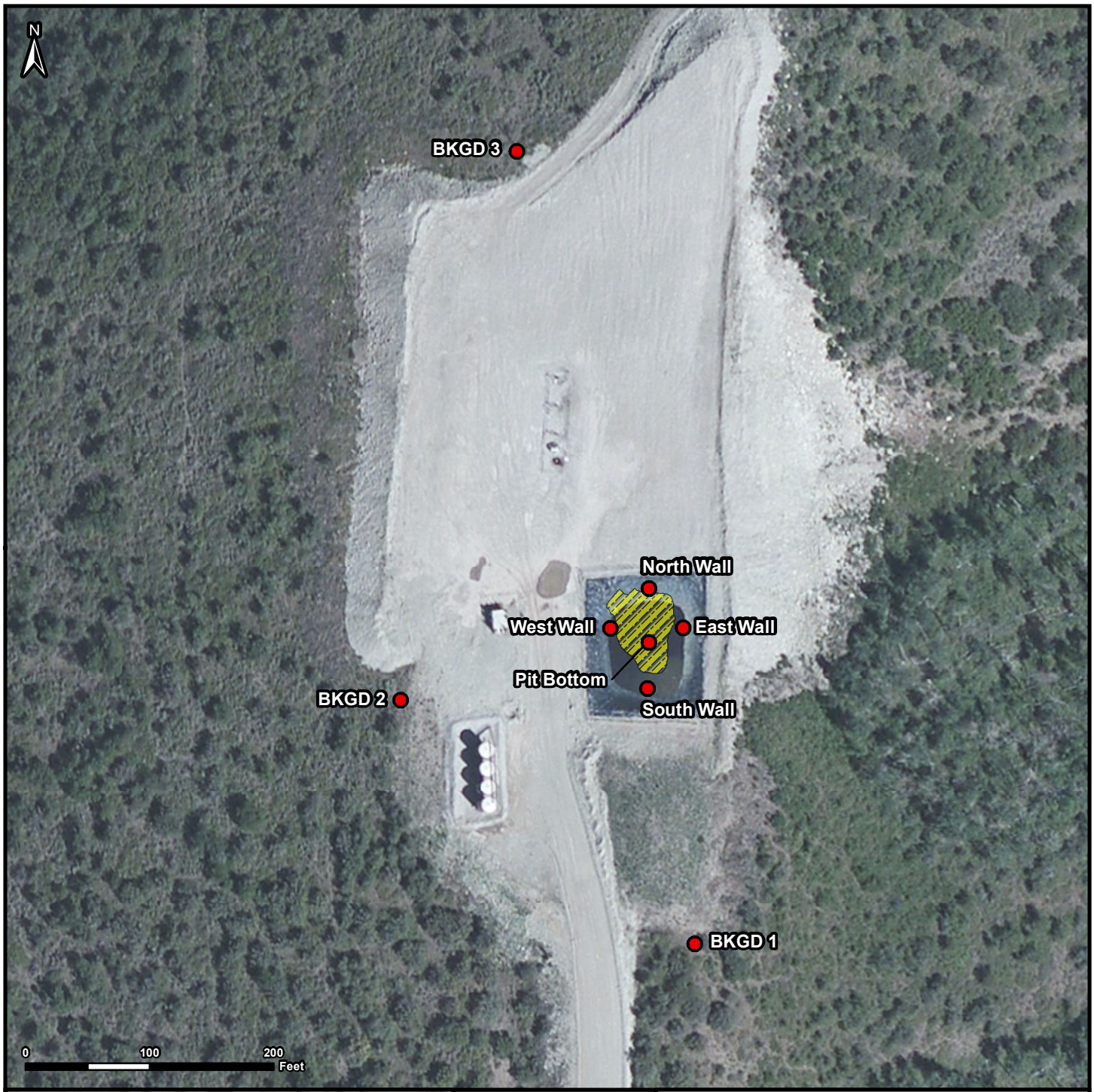
Impacted soils removed from the pit bottom and side walls were treated on-site via aeriation and solarize, as well as amended on-site with native soils from the area surrounding the pad. Analytical presented in Table 5 indicated that soils are below hydrocarbon standards outlined in COGCC Table 910-1 and amending was stopped. Soils will be used to backfill the pit once approval from the COGCC has been obtained.

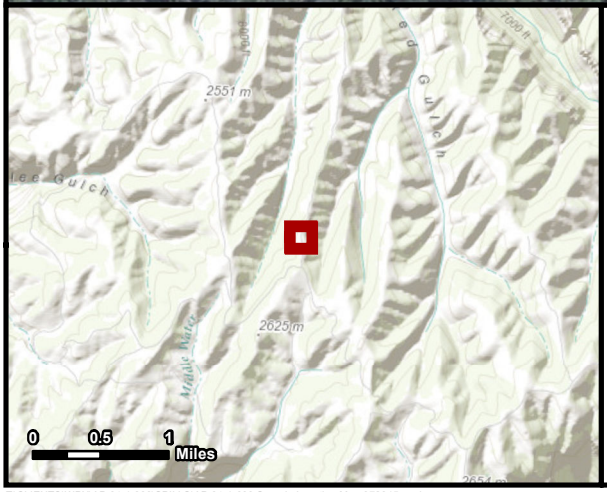
ANALYTICAL DATA MANAGEMENT

Refer to Appendix 1 for the raw analytical analysis for samples collected along the pit bottom and side walls, which are also presented in Table 2, highlighting areas exceeding COGCC Table 910-1 concentrations. Table 3 provides additional DRO analysis collected from the eastern side wall, with raw data being available in Appendix 1. Table 4 includes background sample results with raw analytical data available in Appendix 2. Table 5 outlines the landfarm soils treated on-site, with raw analytical data available in Appendix 3.

FIGURES

FIGURE 2: GIS MAP OF THE SAMPLE LOCATIONS





NOTES / COMMENTS:

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HCSI assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.

WPXENERGY

Sample Location Map

AP 34-1-696

39.548378 -108.057071
Section 1, Township 6 South, Range 96 West

	Transportation	Hydrography
Sample Location	CO Highways	Ditch
Excavated Area	County Roads	Intermittent Stream
Township	Local Streets	Perennial Stream
Section	WPX Access	Waterbody
		Watershed

HRL Compliance Solutions, Inc.
Environmental Consultants

Author: E. Fought
Revision: 0
Date: 7/20/2015

T:\CLIENTS\WPX\AP 34-1-696\SPILLS\AP 34-1-696 Sample Location Map 072015.mxd

FIGURE 3: PRE-EXCAVATION

Visual representation of the impacted soils on pit walls prior to excavation.

FIGURE 4: PRE-EXCAVATION

Visual representation of the impacted soils pit bottom prior to excavation. Liquids present are from previous days precipitation event.

FIGURE 5:POST EXCAVATION

Visual representation of the soils on the pit bottom and pit side walls post excavation.

TABLES

TABLE 2: POST EXCAVATION PIT BOTTOM AND WALLS ANALYTICAL RESULTS

Pit Bottom and Walls	Sample Locations				
	North Wall (1ft Depth)	South Wall (1ft Depth)	East Wall (1ft Depth)	West Wall (1ft Depth)	Pit Bottom (2ft Depth)
TEPH (DRO)	330	21	570	57	170
TVPH (GRO)	31	ND	ND	ND	ND
BENZENE	ND	ND	ND	ND	ND
TOLUENE	ND	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	ND	ND	ND
XYLENE TOTAL	160	ND	ND	ND	ND
ACENAPHTHENE	ND	ND	ND	ND	ND
ANTHRACENE	ND	ND	ND	ND	ND
BENZO(A)ANTRHACENE	ND	ND	ND	ND	ND
BENZO(A)PYRENE	ND	ND	ND	ND	ND
BENZO(B)FLUORANTHENE	ND	ND	ND	ND	ND
BENZO(G,H,I)PERYLEN	ND	ND	ND	ND	ND
BENZO(K)FLUORANTHENE	ND	ND	ND	ND	ND
CHRYSENE (mg/kg)	ND	ND	ND	ND	ND
DIBENZO(A,H)ANTHRANCENE	ND	ND	ND	ND	ND
FLUORANTHENE	ND	ND	ND	ND	ND
FLUORENE	ND	ND	ND	ND	ND
INDENO(1,2,3-CD)PYRENE	ND	ND	ND	ND	ND
NAPHTHALENE	ND	ND	ND	ND	ND
PYRENE	ND	ND	ND	ND	ND
ARSENIC	-	-	-	-	8.1
BARIUM	-	-	-	-	200
CADMIUM	-	-	-	-	ND
CHROMIUM	-	-	-	-	83
CHROMIUM (III)	-	-	-	-	83
CHROMIUM (IV)	-	-	-	-	ND
COPPER	-	-	-	-	22
LEAD	-	-	-	-	13
MERCURY	-	-	-	-	0.026
NICKEL	-	-	-	-	34
SELENIUM	-	-	-	-	ND
SILVER	-	-	-	-	ND
ZINC	-	-	-	-	62
ELECTRICAL CONDUCTIVITY (EC) (mmho/cm)	4.9	2.6	9.0	8.0	7.8
pH	8.2	7.8	8.5	8.3	7.7
SODIUM ADSORPTION RATIO (SAR)	4.9	1.0	29	20	22

Readings above state limits are highlighted in yellow
Note: all results are in, mg/kg = milligram per kilogram, unless noted otherwise
ND = Non Detect
- = Not Sampled

TABLE 3: ADDITIONAL EAST WALL SAMPLE ANALYTICAL RESULTS

Sample Location	
East Wall (2ft Depth)	
TEPH (DRO)	9.1
TVPH (GRO)	ND

TABLE 4: BACKGROUND ANALYTICAL RESULTS

Sample ID	Arsenic (mg/kg)	Conductivity(mmho/cm)	pH (s.u.)	Sodium Adsorbtion Ratio
BKGD 1	7.4	1.0	7.0	0.17
BKGD 2	7.3	N/A	N/A	N/A
BKGD 3	6.9	N/A	N/A	N/A

Results above state limits are highlighted in yellow

TABLE 5: LANDFARM ANALYTICAL RESULTS

Sample ID	Landfarm
TEPH (DRO)	350
TVPH (GRO)	53
BENZENE	ND
TOLUENE	ND
ETHYLBENZENE	ND
XYLENE TOTAL	ND
ACENAPHTHENE	ND
ANTHRACENE	ND
BENZO(A)ANTRHACENE	ND
BENZO(A)PYRENE	ND
BENZO(B)FLUORANTHENE	ND
BENZO(G,H,I)PERYLEN	ND
BENZO(K)FLUORANTHENE	ND
CHRYSENE (mg/kg)	ND
DIBENZO(A,H)ANTHRANCENE	ND
FLUORANTHENE	ND
FLUORENE	ND
INDENO(1,2,3-CD)PYRENE	ND
NAPHTHALENE	ND
PYRENE	ND
ARSENIC	14
BARIUM	1100
CADMIUM	ND
CHROMIUM	45
CHROMIUM (III)	45
CHROMIUM (IV)	ND
COPPER	25
LEAD	3.6
MERCURY	0.035
NICKEL	48
SELENIUM	1.3
SILVER	ND
ZINC	29
ELECTRICAL CONDUCTIVITY (EC) (mmho/cm)	6.2
pH	8.4
SODIUM ADSORPTION RATIO (SAR)	17

APPENDICES

Appendix 1: Pit Bottom & Side Wall Raw Analytical Data

28-May-2015

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

Re: **WPX Energy - AP 34-1-696 - Pit Closure** Work Order: **15051260**

Dear Mark,

ALS Environmental received 8 samples on 22-May-2015 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 37.

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

Sincerely,

Electronically approved by: Les Arnold

Les Arnold
Senior Project Manager

Certificate No: MN 532786

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

ALS Group USA, Corp

Date: 28-May-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: **15051260**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
15051260-01	Pit Bottom @ 2ft Confirmation	Soil		5/21/2015 14:35	5/22/2015 10:00	☐
15051260-02	North Wall @ 1ft Confirmation	Soil		5/21/2015 14:20	5/22/2015 10:00	☐
15051260-03	East Wall @ 1ft Confirmation	Soil		5/21/2015 14:00	5/22/2015 10:00	☐
15051260-04	West Wall @ 1ft Confirmation	Soil		5/21/2015 14:25	5/22/2015 10:00	☐
15051260-05	BKGD 1	Soil		5/21/2015 14:30	5/22/2015 10:00	☐
15051260-06	BKGD 2	Soil		5/21/2015 14:45	5/22/2015 10:00	☐
15051260-07	BKGD 3	Soil		5/21/2015 15:15	5/22/2015 10:00	☐
15051260-08	South Wall @ 1ft Confirmation	Soil		5/21/2015 13:50	5/22/2015 10:00	☐

Client:	HRL Compliance Solutions, Inc
Project:	WPX Energy - AP 34-1-696 - Pit Closure
WorkOrder:	**15051260**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
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

Units Reported	Description
% 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 Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260

Case Narrative

Batch 71373, Method DRO_8015_S, Sample 15051128-01B MS: The matrix spike recovery was outside of the control limit. However, the matrix spike duplicate recovery and the RPD between the MS and MSD were in control. No qualification is required for this analyte: DRO (C10-C28)

Batch 71373, Method DRO_8015_S, Sample 15051128-01B MS: The MS and/or MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: ORO (C28-C40)

Batch 71373, Method DRO_8015_S, Sample 15051128-01B MSD: The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: ORO (C28-C40)

Batch 71380, Method VOC_8260_S, Sample 15051260-01A: needs blk reference

Batch 71380, Method VOC_8260_S, Sample 15051260-02A: needs blk reference

Batch 71380, Method VOC_8260_S, Sample 15051260-03A: needs blk reference

Batch 71380, Method VOC_8260_S, Sample 15051260-04A: needs blk reference

Batch 71380, Method VOC_8260_S, Sample 15051260-08A: needs blk reference

Batch 71380, Method VOC_8260_S, Sample LCS-71380: The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for this analyte. 1,2 DBE, Trans 1,4-dichloro-2-butene

Batch 71382, Method SVO_8270_S, Sample 15051260-02B MS: The MS and/or MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Hexachlorocyclopentadiene

Batch 71382, Method SVO_8270_S, Sample 15051260-02B MS: The MS and/or MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: Caprolactam

Batch 71382, Method SVO_8270_S, Sample 15051260-02B MSD: The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Hexachlorocyclopentadiene

Batch 71382, Method SVO_8270_S, Sample 15051260-02B MSD: The RPD between the MS and MSD was outside the control limit. The corresponding result in the parent sample should be considered estimated for this analyte: Hexachlorocyclopentadiene

Batch 71382, Method SVO_8270_S, Sample 15051260-02B MSD: The MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: Caprolactam

Batch 71395, Method ICP_6010_S, Sample 15051216-05BMS: The MS and/or MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: Pb

Batch 71395, Method ICP_6010_S, Sample 15051216-05BMS: The MS and/or MSD recovery was outside of the control; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Ba,Fe,Zn

Batch 71395, Method ICP_6010_S, Sample 15051216-05BMSD: The RPD between the MS and MSD was outside the control limit. The corresponding result in the parent sample should be considered estimated for this analyte: Cr

Batch 71459, Method CR6_7196_S, Sample 15051260-01B MS: The MS and/or MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte:

Batch 71459, Method CR6_7196_S, Sample 15051260-01B MSD: The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte:

Batch 71459, Method CR6_7196_S, Sample 15051260-01B MSI: The MS and/or MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte:

Batch 71373, Method DRO_3541_S, Sample DLCSS1-71373: 100uL DRO/ORO Spike, line# 100-7845.

Batch 71382, Method BA_3541_S, Sample SLCSS1-71382: 500 uL MegaMix spike, line# 200-18633 added.

Batch 71395, Method ICP_6010_S, Sample 15051216-05BMS: 1
Batch 71395, Method ICP_6010_S, Sample 15051216-05BMSD: 1

ALS Group USA, Corp

Date: *28-May-15*

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: Pit Bottom @ 2ft Confirmation
Lab ID: 15051260-01
Collection Date: 5/21/2015 02:35 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **5/22/2015**	Analyst: **IT**
DRO (C10-C28)	**170**		**4.7**	**mg/Kg-dry**	1	5/22/2015 07:32 PM
Surr: 4-Terphenyl-d14	*71.7*		*39-133*	*%REC*	1	5/22/2015 07:32 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep Date: **5/22/2015**	Analyst: **IT**
GRO (C6-C10)	ND		2.9	mg/Kg-dry	1	5/22/2015 01:34 PM
Surr: Toluene-d8	*104*		*50-150*	*%REC*	1	5/22/2015 01:34 PM
MERCURY BY CVAA			**SW7471B**		Prep Date: **5/22/2015**	Analyst: **RG**
Mercury	**0.026**		**0.020**	**mg/Kg-dry**	1	5/22/2015 04:51 PM
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep Date: **5/22/2015**	Analyst: **JEC**
Arsenic	**8.1**		**0.43**	**mg/Kg-dry**	1	5/22/2015 08:56 PM
Barium	**200**		**0.43**	**mg/Kg-dry**	1	5/22/2015 08:56 PM
Cadmium	ND		0.34	mg/Kg-dry	1	5/22/2015 08:56 PM
Chromium	**83**		**0.43**	**mg/Kg-dry**	1	5/22/2015 08:56 PM
Copper	**22**		**0.43**	**mg/Kg-dry**	1	5/26/2015 11:40 AM
Lead	**13**		**0.43**	**mg/Kg-dry**	1	5/22/2015 08:56 PM
Nickel	**34**		**0.43**	**mg/Kg-dry**	1	5/26/2015 11:40 AM
Selenium	ND		0.43	mg/Kg-dry	1	5/22/2015 08:56 PM
Silver	ND		0.43	mg/Kg-dry	1	5/22/2015 08:56 PM
Zinc	**62**		**0.86**	**mg/Kg-dry**	1	5/22/2015 08:56 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep Date: **5/27/2015**	Analyst: **JEC**
Calcium	**170**		**5.0**	**mg/L**	10	5/27/2015 01:49 PM
Magnesium	**22**		**2.0**	**mg/L**	10	5/27/2015 01:49 PM
Sodium	**1,200**		**2.0**	**mg/L**	10	5/27/2015 01:49 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **5/27/2015**	Analyst: **JEC**
Sodium Adsorption Ratio	**22**		**0.010**	**none**	1	5/27/2015
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep Date: **5/22/2015**	Analyst: **RS**
Acenaphthene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Acenaphthylene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Anthracene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Benzo(a)anthracene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Benzo(a)pyrene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Benzo(b)fluoranthene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Benzo(g,h,i)perylene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Benzo(k)fluoranthene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Chrysene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Dibenzo(a,h)anthracene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Fluoranthene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM

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

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: Pit Bottom @ 2ft Confirmation
Lab ID: 15051260-01
Collection Date: 5/21/2015 02:35 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Indeno(1,2,3-cd)pyrene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Naphthalene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Pyrene	ND		7.6	µg/Kg-dry	1	5/22/2015 11:49 PM
Surr: 2-Fluorobiphenyl	*57.9*		*12-100*	*%REC*	1	5/22/2015 11:49 PM
Surr: 4-Terphenyl-d14	*82.1*		*25-137*	*%REC*	1	5/22/2015 11:49 PM
Surr: Nitrobenzene-d5	*54.0*		*37-107*	*%REC*	1	5/22/2015 11:49 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **5/22/2015**	Analyst: **BG**
Benzene	ND		34	µg/Kg-dry	1	5/23/2015 01:32 AM
Ethylbenzene	ND		34	µg/Kg-dry	1	5/23/2015 01:32 AM
m,p-Xylene	ND		69	µg/Kg-dry	1	5/23/2015 01:32 AM
o-Xylene	ND		34	µg/Kg-dry	1	5/23/2015 01:32 AM
Toluene	ND		34	µg/Kg-dry	1	5/23/2015 01:32 AM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/23/2015 01:32 AM
Surr: 1,2-Dichloroethane-d4	*97.8*		*70-130*	*%REC*	1	5/23/2015 01:32 AM
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	1	5/23/2015 01:32 AM
Surr: Dibromofluoromethane	*95.8*		*70-130*	*%REC*	1	5/23/2015 01:32 AM
Surr: Toluene-d8	*96.4*		*70-130*	*%REC*	1	5/23/2015 01:32 AM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **5/27/2015**	Analyst: **JB**
Electrical Conductivity @ Saturation	**7.8**		**0.050**	**mmhos/cm @2**	10	5/27/2015 12:15 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JB**
Chromium, Trivalent	**83**		**0.57**	**mg/Kg-dry**	1	5/26/2015 03:30 PM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep Date: **5/22/2015**	Analyst: **MB**
Chromium, Hexavalent	ND		1.2	mg/Kg-dry	1	5/26/2015 11:15 AM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**13**		**0.050**	**% of sample**	1	5/26/2015 11:41 AM
PH			**SW9045D**		Prep Date: **5/26/2015**	Analyst: **KF**
pH	**7.7**			**s.u.**	1	5/26/2015 01:47 PM

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

ALS Group USA, Corp

Date: *28-May-15*

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: North Wall @ 1ft Confirmation
Lab ID: 15051260-02
Collection Date: 5/21/2015 02:20 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **5/22/2015**	Analyst: **IT**
DRO (C10-C28)	**330**		**4.8**	**mg/Kg-dry**	1	5/22/2015 08:02 PM
Surr: 4-Terphenyl-d14	*68.0*		*39-133*	*%REC*	1	5/22/2015 08:02 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep Date: **5/22/2015**	Analyst: **IT**
GRO (C6-C10)	**31**		**3.0**	**mg/Kg-dry**	1	5/22/2015 01:59 PM
Surr: Toluene-d8	*96.6*		*50-150*	*%REC*	1	5/22/2015 01:59 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep Date: **5/27/2015**	Analyst: **JEC**
Calcium	**330**		**5.0**	**mg/L**	10	5/27/2015 03:08 PM
Magnesium	**65**		**2.0**	**mg/L**	10	5/27/2015 03:08 PM
Sodium	**370**		**2.0**	**mg/L**	10	5/27/2015 03:08 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **5/27/2015**	Analyst: **JEC**
Sodium Adsorption Ratio	**4.9**		**0.010**	**none**	1	5/27/2015
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep Date: **5/22/2015**	Analyst: **RS**
Acenaphthene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Acenaphthylene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Anthracene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Benzo(a)anthracene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Benzo(a)pyrene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Benzo(b)fluoranthene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Benzo(g,h,i)perylene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Benzo(k)fluoranthene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Chrysene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Dibenzo(a,h)anthracene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Fluoranthene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Fluorene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Naphthalene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Pyrene	ND		7.7	µg/Kg-dry	1	5/22/2015 08:28 PM
Surr: 2-Fluorobiphenyl	*60.9*		*12-100*	*%REC*	1	5/22/2015 08:28 PM
Surr: 4-Terphenyl-d14	*84.1*		*25-137*	*%REC*	1	5/22/2015 08:28 PM
Surr: Nitrobenzene-d5	*50.1*		*37-107*	*%REC*	1	5/22/2015 08:28 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **5/22/2015**	Analyst: **BG**
Benzene	ND		35	µg/Kg-dry	1	5/23/2015 01:56 AM
Ethylbenzene	ND		35	µg/Kg-dry	1	5/23/2015 01:56 AM
m,p-Xylene	**130**		**71**	**µg/Kg-dry**	1	5/23/2015 01:56 AM
o-Xylene	ND		35	µg/Kg-dry	1	5/23/2015 01:56 AM
Toluene	ND		35	µg/Kg-dry	1	5/23/2015 01:56 AM

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

ALS Group USA, Corp

Date: *28-May-15*

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: North Wall @ 1ft Confirmation
Lab ID: 15051260-02
Collection Date: 5/21/2015 02:20 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	**160**		**110**	**µg/Kg-dry**	1	5/23/2015 01:56 AM
Surr: 1,2-Dichloroethane-d4	*100*		*70-130*	*%REC*	1	5/23/2015 01:56 AM
Surr: 4-Bromofluorobenzene	*105*		*70-130*	*%REC*	1	5/23/2015 01:56 AM
Surr: Dibromofluoromethane	*95.9*		*70-130*	*%REC*	1	5/23/2015 01:56 AM
Surr: Toluene-d8	*98.2*		*70-130*	*%REC*	1	5/23/2015 01:56 AM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **5/27/2015**	Analyst: **JB**
Electrical Conductivity @ Saturation	**4.9**		**0.25**	**mmhos/cm @2**	50	5/27/2015 12:15 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**15**		**0.050**	**% of sample**	1	5/26/2015 11:41 AM
PH			**SW9045D**		Prep Date: **5/26/2015**	Analyst: **KF**
pH	**8.2**			**s.u.**	1	5/26/2015 01:47 PM

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

ALS Group USA, Corp

Date: *28-May-15*

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: East Wall @ 1ft Confirmation
Lab ID: 15051260-03
Collection Date: 5/21/2015 02:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **5/22/2015**	Analyst: **IT**
DRO (C10-C28)	**570**		**5.0**	**mg/Kg-dry**	1	5/22/2015 08:32 PM
Surr: 4-Terphenyl-d14	*65.7*		*39-133*	*%REC*	1	5/22/2015 08:32 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep Date: **5/22/2015**	Analyst: **IT**
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	5/22/2015 02:24 PM
Surr: Toluene-d8	*85.6*		*50-150*	*%REC*	1	5/22/2015 02:24 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep Date: **5/27/2015**	Analyst: **JEC**
Calcium	**150**		**5.0**	**mg/L**	10	5/27/2015 03:13 PM
Magnesium	**23**		**2.0**	**mg/L**	10	5/27/2015 03:13 PM
Sodium	**1,400**		**2.0**	**mg/L**	10	5/27/2015 03:13 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **5/27/2015**	Analyst: **JEC**
Sodium Adsorption Ratio	**29**		**0.010**	**none**	1	5/27/2015
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep Date: **5/22/2015**	Analyst: **RS**
Acenaphthene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Acenaphthylene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Anthracene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Benzo(a)anthracene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Benzo(a)pyrene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Benzo(b)fluoranthene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Benzo(g,h,i)perylene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Benzo(k)fluoranthene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Chrysene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Dibenzo(a,h)anthracene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Fluoranthene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Fluorene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Indeno(1,2,3-cd)pyrene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Naphthalene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Pyrene	ND		8.0	µg/Kg-dry	1	5/23/2015 12:14 PM
Surr: 2-Fluorobiphenyl	*62.0*		*12-100*	*%REC*	1	5/23/2015 12:14 PM
Surr: 4-Terphenyl-d14	*91.5*		*25-137*	*%REC*	1	5/23/2015 12:14 PM
Surr: Nitrobenzene-d5	*58.5*		*37-107*	*%REC*	1	5/23/2015 12:14 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **5/22/2015**	Analyst: **BG**
Benzene	ND		36	µg/Kg-dry	1	5/23/2015 02:21 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	5/23/2015 02:21 AM
m,p-Xylene	ND		73	µg/Kg-dry	1	5/23/2015 02:21 AM
o-Xylene	ND		36	µg/Kg-dry	1	5/23/2015 02:21 AM
Toluene	ND		36	µg/Kg-dry	1	5/23/2015 02:21 AM

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

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: East Wall @ 1ft Confirmation
Lab ID: 15051260-03
Collection Date: 5/21/2015 02:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		110	µg/Kg-dry	1	5/23/2015 02:21 AM
Surr: 1,2-Dichloroethane-d4	*98.6*		*70-130*	*%REC*	1	5/23/2015 02:21 AM
Surr: 4-Bromofluorobenzene	*104*		*70-130*	*%REC*	1	5/23/2015 02:21 AM
Surr: Dibromofluoromethane	*94.0*		*70-130*	*%REC*	1	5/23/2015 02:21 AM
Surr: Toluene-d8	*97.2*		*70-130*	*%REC*	1	5/23/2015 02:21 AM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **5/27/2015**	Analyst: **JB**
Electrical Conductivity @ Saturation	**9.0**		**0.050**	**mmhos/cm @2**	10	5/27/2015 12:15 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**18**		**0.050**	**% of sample**	1	5/26/2015 11:41 AM
PH			**SW9045D**		Prep Date: **5/26/2015**	Analyst: **KF**
pH	**8.5**			**s.u.**	1	5/26/2015 01:47 PM

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

ALS Group USA, Corp

Date: *28-May-15*

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: West Wall @ 1ft Confirmation
Lab ID: 15051260-04
Collection Date: 5/21/2015 02:25 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **5/22/2015**	Analyst: **IT**
DRO (C10-C28)	**57**		**4.9**	**mg/Kg-dry**	1	5/22/2015 09:02 PM
Surr: 4-Terphenyl-d14	*73.3*		*39-133*	*%REC*	1	5/22/2015 09:02 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep Date: **5/22/2015**	Analyst: **IT**
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	5/22/2015 02:48 PM
Surr: Toluene-d8	*105*		*50-150*	*%REC*	1	5/22/2015 02:48 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep Date: **5/27/2015**	Analyst: **JEC**
Calcium	**250**		**5.0**	**mg/L**	10	5/27/2015 02:12 PM
Magnesium	**25**		**2.0**	**mg/L**	10	5/27/2015 02:12 PM
Sodium	**1,200**		**2.0**	**mg/L**	10	5/27/2015 02:12 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **5/27/2015**	Analyst: **JEC**
Sodium Adsorption Ratio	**20**		**0.010**	**none**	1	5/27/2015
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep Date: **5/22/2015**	Analyst: **RS**
Acenaphthene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Acenaphthylene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Anthracene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Benzo(a)anthracene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Benzo(a)pyrene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Benzo(b)fluoranthene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Benzo(g,h,i)perylene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Benzo(k)fluoranthene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Chrysene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Dibenzo(a,h)anthracene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Fluoranthene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Fluorene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Indeno(1,2,3-cd)pyrene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Naphthalene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Pyrene	ND		7.9	µg/Kg-dry	1	5/23/2015 12:39 PM
Surr: 2-Fluorobiphenyl	*55.8*		*12-100*	*%REC*	1	5/23/2015 12:39 PM
Surr: 4-Terphenyl-d14	*77.2*		*25-137*	*%REC*	1	5/23/2015 12:39 PM
Surr: Nitrobenzene-d5	*48.8*		*37-107*	*%REC*	1	5/23/2015 12:39 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **5/22/2015**	Analyst: **BG**
Benzene	ND		36	µg/Kg-dry	1	5/23/2015 02:48 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	5/23/2015 02:48 AM
m,p-Xylene	ND		71	µg/Kg-dry	1	5/23/2015 02:48 AM
o-Xylene	ND		36	µg/Kg-dry	1	5/23/2015 02:48 AM
Toluene	ND		36	µg/Kg-dry	1	5/23/2015 02:48 AM

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

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: West Wall @ 1ft Confirmation
Lab ID: 15051260-04
Collection Date: 5/21/2015 02:25 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		110	µg/Kg-dry	1	5/23/2015 02:48 AM
Surr: 1,2-Dichloroethane-d4	*97.8*		*70-130*	*%REC*	1	5/23/2015 02:48 AM
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	1	5/23/2015 02:48 AM
Surr: Dibromofluoromethane	*94.8*		*70-130*	*%REC*	1	5/23/2015 02:48 AM
Surr: Toluene-d8	*96.6*		*70-130*	*%REC*	1	5/23/2015 02:48 AM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **5/27/2015**	Analyst: **JB**
Electrical Conductivity @ Saturation	**8.0**		**0.050**	**mmhos/cm @2**	10	5/27/2015 12:15 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**16**		**0.050**	**% of sample**	1	5/26/2015 11:41 AM
PH			**SW9045D**		Prep Date: **5/26/2015**	Analyst: **KF**
pH	**8.3**			**s.u.**	1	5/26/2015 01:47 PM

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

ALS Group USA, Corp

Date: *28-May-15*

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: South Wall @ 1ft Confirmation
Lab ID: 15051260-08
Collection Date: 5/21/2015 01:50 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **5/22/2015**	Analyst: **IT**
DRO (C10-C28)	**21**		**5.1**	**mg/Kg-dry**	1	5/22/2015 09:32 PM
Surr: 4-Terphenyl-d14	*64.4*		*39-133*	*%REC*	1	5/22/2015 09:32 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep Date: **5/22/2015**	Analyst: **IT**
GRO (C6-C10)	ND		3.1	mg/Kg-dry	1	5/22/2015 03:13 PM
Surr: Toluene-d8	*103*		*50-150*	*%REC*	1	5/22/2015 03:13 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep Date: **5/27/2015**	Analyst: **JEC**
Calcium	**370**		**5.0**	**mg/L**	10	5/27/2015 02:23 PM
Magnesium	**46**		**2.0**	**mg/L**	10	5/27/2015 02:23 PM
Sodium	**80**		**2.0**	**mg/L**	10	5/27/2015 02:23 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **5/27/2015**	Analyst: **JEC**
Sodium Adsorption Ratio	**1.0**		**0.010**	**none**	1	5/27/2015
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep Date: **5/22/2015**	Analyst: **RS**
Acenaphthene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Acenaphthylene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Anthracene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Benzo(a)anthracene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Benzo(a)pyrene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Benzo(b)fluoranthene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Benzo(g,h,i)perylene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Benzo(k)fluoranthene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Chrysene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Dibenzo(a,h)anthracene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Fluoranthene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Fluorene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Indeno(1,2,3-cd)pyrene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Naphthalene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Pyrene	ND		8.1	µg/Kg-dry	1	5/23/2015 01:04 AM
Surr: 2-Fluorobiphenyl	*50.2*		*12-100*	*%REC*	1	5/23/2015 01:04 AM
Surr: 4-Terphenyl-d14	*73.0*		*25-137*	*%REC*	1	5/23/2015 01:04 AM
Surr: Nitrobenzene-d5	*46.9*		*37-107*	*%REC*	1	5/23/2015 01:04 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **5/22/2015**	Analyst: **BG**
Benzene	ND		37	µg/Kg-dry	1	5/23/2015 03:13 AM
Ethylbenzene	ND		37	µg/Kg-dry	1	5/23/2015 03:13 AM
m,p-Xylene	ND		73	µg/Kg-dry	1	5/23/2015 03:13 AM
o-Xylene	ND		37	µg/Kg-dry	1	5/23/2015 03:13 AM
Toluene	ND		37	µg/Kg-dry	1	5/23/2015 03:13 AM

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

ALS Group USA, Corp

Date: *28-May-15*

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: South Wall @ 1ft Confirmation
Lab ID: 15051260-08
Collection Date: 5/21/2015 01:50 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		110	µg/Kg-dry	1	5/23/2015 03:13 AM
Surr: 1,2-Dichloroethane-d4	*98.6*		*70-130*	*%REC*	1	5/23/2015 03:13 AM
Surr: 4-Bromofluorobenzene	*100*		*70-130*	*%REC*	1	5/23/2015 03:13 AM
Surr: Dibromofluoromethane	*95.0*		*70-130*	*%REC*	1	5/23/2015 03:13 AM
Surr: Toluene-d8	*96.3*		*70-130*	*%REC*	1	5/23/2015 03:13 AM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **5/27/2015**	Analyst: **JB**
Electrical Conductivity @ Saturation	**2.6**		**0.050**	**mmhos/cm @2**	10	5/27/2015 12:15 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**18**		**0.050**	**% of sample**	1	5/26/2015 11:41 AM
PH			**SW9045D**		Prep Date: **5/26/2015**	Analyst: **KF**
pH	**7.8**			**s.u.**	1	5/26/2015 01:47 PM

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

ALS Group USA, Corp

Date: 28-May-15

Client: HRL Compliance Solutions, Inc

Work Order: 15051260

Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71373** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-71373-71373** Units: **mg/Kg** Analysis Date: **5/22/2015 05:52 PM**

Client ID: Run ID: **GC8_150522A** SeqNo: **3290451** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	*1.959*	0	*2*	0	*98*	*39-133*	0			

LCS Sample ID: **DLCSS1-71373-71373** Units: **mg/Kg** Analysis Date: **5/22/2015 05:57 PM**

Client ID: Run ID: **GC8_150522A** SeqNo: **3290452** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	166.8	5.0	200	0	83.4	61-109	0			
Surr: 4-Terphenyl-d14	*1.502*	0	*2*	0	*75.1*	*39-133*	0			

MS Sample ID: **15051128-01B MS** Units: **mg/Kg** Analysis Date: **5/22/2015 06:02 PM**

Client ID: Run ID: **GC8_150522A** SeqNo: **3290453** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	749.4	7.8	313.8	700.5	15.6	48-110	0			S
Surr: 4-Terphenyl-d14	*2.269*	0	*3.138*	0	*72.3*	*39-133*	0			

MSD Sample ID: **15051128-01B MSD** Units: **mg/Kg** Analysis Date: **5/22/2015 06:32 PM**

Client ID: Run ID: **GC8_150522A** SeqNo: **3290454** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	962.9	7.9	314.9	700.5	83.4	48-110	749.4	24.9	30	
Surr: 4-Terphenyl-d14	*1.97*	0	*3.149*	0	*62.6*	*39-133*	2.269	*14.1*	*30*	

The following samples were analyzed in this batch:

15051260-01B	15051260-02B	15051260-03B
15051260-04B	15051260-08B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71390** Instrument ID **GC9** Method: **SW8015D**

MBLK Sample ID: **MBLK-71390-71390** Units: **µg/Kg** Analysis Date: **5/22/2015 12:56 PM**
Client ID: Run ID: **GC9_150522A** SeqNo: **3287958** Prep Date: **5/22/2015** 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								
Surr: Toluene-d8	*5092*	0	*5000*	0	*102*	*50-150*	0			

LCS Sample ID: **LCS-71390-71390** Units: **µg/Kg** Analysis Date: **5/22/2015 12:31 PM**
Client ID: Run ID: **GC9_150522A** SeqNo: **3287957** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	551000	2,500	500000	0	110	70-130	0			
Surr: Toluene-d8	*4318*	0	*5000*	0	*86.4*	*50-150*	0			

MS Sample ID: **15051260-01A MS** Units: **µg/Kg** Analysis Date: **5/22/2015 04:52 PM**
Client ID: **Pit Bottom @ 2ft Confirmation** Run ID: **GC9_150522A** SeqNo: **3290430** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	549800	2,500	500000	0	110	70-130	0			
Surr: Toluene-d8	*4122*	0	*5000*	0	*82.4*	*50-150*	0			

MSD Sample ID: **15051260-01A MSD** Units: **µg/Kg** Analysis Date: **5/22/2015 05:17 PM**
Client ID: **Pit Bottom @ 2ft Confirmation** Run ID: **GC9_150522A** SeqNo: **3290431** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	543700	2,500	500000	0	109	70-130	549800	1.12	30	
Surr: Toluene-d8	*4314*	0	*5000*	0	*86.3*	*50-150*	4122	*4.55*	*30*	

The following samples were analyzed in this batch:

15051260-01A	15051260-02A	15051260-03A
15051260-04A	15051260-08A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71399** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-71399-71399** Units: **mg/Kg** Analysis Date: **5/22/2015 04:47 PM**
Client ID: Run ID: **HG1_150522A** SeqNo: **3289654** Prep Date: **5/22/2015** 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-71399-71399** Units: **mg/Kg** Analysis Date: **5/22/2015 04:49 PM**
Client ID: Run ID: **HG1_150522A** SeqNo: **3289655** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1719	0.020	0.1665	0	103	80-120	0			

MS Sample ID: **15051274-01AMS** Units: **mg/Kg** Analysis Date: **5/22/2015 05:00 PM**
Client ID: Run ID: **HG1_150522A** SeqNo: **3289660** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1167	0.014	0.1185	0.001923	96.8	75-125	0			

MSD Sample ID: **15051274-01AMSD** Units: **mg/Kg** Analysis Date: **5/22/2015 05:03 PM**
Client ID: Run ID: **HG1_150522A** SeqNo: **3289661** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1213	0.014	0.1179	0.001923	101	75-125	0.1167	3.9	35	

The following samples were analyzed in this batch: 15051260-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71361** Instrument ID **ICP2** Method: **SW846 6010C**

DUP Sample ID: **15051260-01CDUP** Units: **mg/L** Analysis Date: **5/27/2015 01:55 PM**
Client ID: **Pit Bottom @ 2ft Confirmation** Run ID: **ICP2_150527B** SeqNo: **3293226** Prep Date: **5/27/2015** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	191.2	5.0	0	0	0	0-0	173.7	9.55		
Magnesium	23.88	2.0	0	0	0	0-0	21.88	8.76		
Sodium	1223	2.0	0	0	0	0-0	1176	3.92		

DUP Sample ID: **15051260-01CDUP** Units: **none** Analysis Date: **5/27/2015**
Client ID: **Pit Bottom @ 2ft Confirmation** Run ID: **SAR_150527A** SeqNo: **3293324** Prep Date: **5/27/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	22.18	0.010	0	0	0		22.35	0.79	50	

The following samples were analyzed in this batch:

15051260-01C	15051260-02C	15051260-03C
15051260-04C	15051260-05A	15051260-08C

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71395** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK Sample ID: **MBLK-71395-71395** Units: **mg/Kg** Analysis Date: **5/22/2015 07:27 PM**
Client ID: Run ID: **ICP2_150522A** SeqNo: **3289453** Prep Date: **5/22/2015** 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	0.50								
Chromium	ND	0.25								
Lead	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	ND	0.50								

MBLK Sample ID: **MBLK-71395-71395** Units: **mg/Kg** Analysis Date: **5/26/2015 03:00 PM**
Client ID: Run ID: **ICP2_150526A** SeqNo: **3290752** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	ND	0.50								
Nickel	ND	0.25								

LCS Sample ID: **LCS-71395-71395** Units: **mg/Kg** Analysis Date: **5/22/2015 07:33 PM**
Client ID: Run ID: **ICP2_150522A** SeqNo: **3289454** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.973	0.25	5	0	99.5	80-120	0			
Barium	4.961	0.25	5	0	99.2	80-120	0			
Cadmium	5.106	0.50	5	0	102	80-120	0			
Chromium	5.327	0.25	5	0	107	80-120	0			
Lead	5.072	0.25	5	0	101	80-120	0			
Selenium	5.072	0.50	5	0	101	80-120	0			
Silver	5.252	0.25	5	0	105	80-120	0			
Zinc	5.448	0.50	5	0	109	80-120	0			

LCS Sample ID: **LCS-71395-71395** Units: **mg/Kg** Analysis Date: **5/26/2015 03:06 PM**
Client ID: Run ID: **ICP2_150526A** SeqNo: **3290753** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	5.225	0.50	5	0	104	80-120	0			
Nickel	5.035	0.25	5	0	101	80-120	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71395** Instrument ID **ICP2** Method: **SW846 6010C**

MS Sample ID: **15051216-05BMS** Units: **mg/Kg** Analysis Date: **5/22/2015 08:12 PM**
Client ID: Run ID: **ICP2_150522A** SeqNo: **3289461** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.64	0.34	6.897	4.288	107	75-125	0			
Barium	41.09	0.34	6.897	34.8	91.2	75-125	0			O
Cadmium	6.797	0.69	6.897	-0.1528	101	75-125	0			
Chromium	14.21	0.34	6.897	6.462	112	75-125	0			
Lead	16.87	0.34	6.897	13.65	46.7	75-125	0			S
Selenium	6.337	0.69	6.897	-0.4579	98.5	75-125	0			
Silver	7.183	0.34	6.897	-0.04067	105	75-125	0			
Zinc	39.78	0.69	6.897	29.82	144	75-125	0			SO

MS Sample ID: **15051216-05BMS** Units: **mg/Kg** Analysis Date: **5/26/2015 11:24 AM**
Client ID: Run ID: **ICP2_150526A** SeqNo: **3290394** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	15.47	0.69	6.897	7.265	119	75-125	0			
Nickel	16.42	0.34	6.897	9.232	104	75-125	0			

MSD Sample ID: **15051216-05BMSD** Units: **mg/Kg** Analysis Date: **5/22/2015 08:17 PM**
Client ID: Run ID: **ICP2_150522A** SeqNo: **3289463** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.09	0.35	6.954	4.288	112	75-125	11.64	3.84	20	
Barium	47.18	0.35	6.954	34.8	178	75-125	41.09	13.8	20	SO
Cadmium	6.941	0.70	6.954	-0.1528	102	75-125	6.797	2.09	20	
Chromium	15.32	0.35	6.954	6.462	127	75-125	14.21	7.55	20	S
Lead	17.35	0.35	6.954	13.65	53.1	75-125	16.87	2.79	20	S
Selenium	6.658	0.70	6.954	-0.4579	102	75-125	6.337	4.94	20	
Silver	7.264	0.35	6.954	-0.04067	105	75-125	7.183	1.11	20	
Zinc	41.07	0.70	6.954	29.82	162	75-125	39.78	3.19	20	SO

MSD Sample ID: **15051216-05BMSD** Units: **mg/Kg** Analysis Date: **5/26/2015 11:29 AM**
Client ID: Run ID: **ICP2_150526A** SeqNo: **3290395** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	16.59	0.70	6.954	7.265	134	75-125	15.47	6.99	20	S
Nickel	17.13	0.35	6.954	9.232	114	75-125	16.42	4.23	20	

The following samples were analyzed in this batch:

15051260-01B	15051260-05A	15051260-06A
15051260-07A		

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71382** Instrument ID **SVMS4** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-71382-71382** Units: **µg/Kg** Analysis Date: **5/22/2015 06:49 PM**
Client ID: Run ID: **SVMS4_150522A** SeqNo: **3290620** Prep Date: **5/22/2015** 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								
Surr: 2-Fluorobiphenyl	*1288*	0	*1667*	0	*77.3*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1916*	0	*1667*	0	*115*	*25-137*	0			
Surr: Nitrobenzene-d5	*1102*	0	*1667*	0	*66.1*	*37-107*	0			

LCS Sample ID: **SLCSS1-71382-71382** Units: **µg/Kg** Analysis Date: **5/22/2015 07:13 PM**
Client ID: Run ID: **SVMS4_150522A** SeqNo: **3290621** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	470.3	6.7	666.7	0	70.5	45-110	0			
Acenaphthylene	497.7	6.7	666.7	0	74.6	45-105	0			
Anthracene	578.7	6.7	666.7	0	86.8	55-105	0			
Benzo(a)anthracene	600.3	6.7	666.7	0	90	50-110	0			
Benzo(a)pyrene	621.3	6.7	666.7	0	93.2	50-110	0			
Benzo(b)fluoranthene	603.7	6.7	666.7	0	90.5	45-115	0			
Benzo(g,h,i)perylene	687	6.7	666.7	0	103	40-125	0			
Benzo(k)fluoranthene	595.3	6.7	666.7	0	89.3	45-115	0			
Chrysene	584.7	6.7	666.7	0	87.7	55-110	0			
Dibenzo(a,h)anthracene	666.7	6.7	666.7	0	100	40-125	0			
Fluoranthene	576.7	6.7	666.7	0	86.5	55-115	0			
Fluorene	490.7	6.7	666.7	0	73.6	50-110	0			
Indeno(1,2,3-cd)pyrene	664	6.7	666.7	0	99.6	40-120	0			
Naphthalene	437.3	6.7	666.7	0	65.6	40-105	0			
Pyrene	662	6.7	666.7	0	99.3	45-125	0			
Surr: 2-Fluorobiphenyl	*1143*	0	*1667*	0	*68.6*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1798*	0	*1667*	0	*108*	*25-137*	0			
Surr: Nitrobenzene-d5	*930.7*	0	*1667*	0	*55.8*	*37-107*	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71382** Instrument ID **SVMS4** Method: **SW846 8270D**

MS Sample ID: **15051260-02B MS** Units: **µg/Kg** Analysis Date: **5/22/2015 07:38 PM**
Client ID: **North Wall @ 1ft Confirmation** Run ID: **SVMS4_150522A** SeqNo: **3290622** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	907.1	13	1331	0	68.1	45-110	0			
Acenaphthylene	983	13	1331	0	73.8	45-105	0			
Anthracene	1103	13	1331	0	82.8	55-105	0			
Benzo(a)anthracene	1102	13	1331	0	82.8	50-110	0			
Benzo(a)pyrene	1189	13	1331	0	89.3	50-110	0			
Benzo(b)fluoranthene	1141	13	1331	0	85.7	45-115	0			
Benzo(g,h,i)perylene	1134	13	1331	0	85.2	40-125	0			
Benzo(k)fluoranthene	1024	13	1331	0	76.9	45-115	0			
Chrysene	1030	13	1331	0	77.3	55-110	0			
Dibenzo(a,h)anthracene	1127	13	1331	0	84.7	40-125	0			
Fluoranthene	1153	13	1331	0	86.6	55-115	0			
Fluorene	984.3	13	1331	0	73.9	50-110	0			
Indeno(1,2,3-cd)pyrene	1171	13	1331	0	88	40-120	0			
Naphthalene	791.3	13	1331	0	59.4	40-105	0			
Pyrene	1147	13	1331	0	86.2	45-125	0			
Surr: 2-Fluorobiphenyl	*2046*	0	*3328*	0	*61.5*	*12-100*	0			
Surr: 4-Terphenyl-d14	*3071*	0	*3328*	0	*92.3*	*25-137*	0			
Surr: Nitrobenzene-d5	*1692*	0	*3328*	0	*50.9*	*37-107*	0			

MSD Sample ID: **15051260-02B MSD** Units: **µg/Kg** Analysis Date: **5/22/2015 08:03 PM**
Client ID: **North Wall @ 1ft Confirmation** Run ID: **SVMS4_150522A** SeqNo: **3290623** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	871.1	13	1263	0	68.9	45-110	907.1	4.05	30	
Acenaphthylene	967.7	13	1263	0	76.6	45-105	983	1.56	30	
Anthracene	1056	13	1263	0	83.5	55-105	1103	4.38	30	
Benzo(a)anthracene	1058	13	1263	0	83.7	50-110	1102	4.08	30	
Benzo(a)pyrene	1141	13	1263	0	90.3	50-110	1189	4.11	30	
Benzo(b)fluoranthene	1096	13	1263	0	86.7	45-115	1141	4.06	30	
Benzo(g,h,i)perylene	1018	13	1263	0	80.6	40-125	1134	10.8	30	
Benzo(k)fluoranthene	1005	13	1263	0	79.5	45-115	1024	1.9	30	
Chrysene	989.2	13	1263	0	78.3	55-110	1030	4	30	
Dibenzo(a,h)anthracene	1038	13	1263	0	82.1	40-125	1127	8.27	30	
Fluoranthene	1093	13	1263	0	86.5	55-115	1153	5.39	30	
Fluorene	937.4	13	1263	0	74.2	50-110	984.3	4.88	30	
Indeno(1,2,3-cd)pyrene	1099	13	1263	0	87	40-120	1171	6.36	30	
Naphthalene	840.8	13	1263	0	66.5	40-105	791.3	6.06	30	
Pyrene	1088	13	1263	0	86.1	45-125	1147	5.28	30	
Surr: 2-Fluorobiphenyl	*2075*	0	*3158*	0	*65.7*	*12-100*	2046	*1.42*	*40*	
Surr: 4-Terphenyl-d14	*2926*	0	*3158*	0	*92.6*	*25-137*	3071	*4.83*	*40*	
Surr: Nitrobenzene-d5	*1836*	0	*3158*	0	*58.1*	*37-107*	1692	*8.15*	*40*	

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71382** Instrument ID **SVMS4** Method: **SW846 8270D**

The following samples were analyzed in this batch:

15051260-01B	15051260-02B	15051260-03B
15051260-04B	15051260-08B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71380** Instrument ID **VMS7** Method: **SW8260B**

MBLK Sample ID: **MBLK-71380-71380** Units: **µg/Kg** Analysis Date: **5/23/2015 07:52 PM**
Client ID: Run ID: **VMS7_150523A** SeqNo: **3289747** Prep Date: **5/22/2015** 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	*995.5*	0	*1000*	0	*99.6*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*980.5*	0	*1000*	0	*98*	*70-130*	0			
Surr: Dibromofluoromethane	*1011*	0	*1000*	0	*101*	*70-130*	0			
Surr: Toluene-d8	*958*	0	*1000*	0	*95.8*	*70-130*	0			

LCS Sample ID: **LCS-71380-71380** Units: **µg/Kg** Analysis Date: **5/23/2015 06:37 PM**
Client ID: Run ID: **VMS7_150523A** SeqNo: **3289746** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1026	30	1000	0	103	75-125	0			
Ethylbenzene	942.5	30	1000	0	94.2	75-125	0			
m,p-Xylene	1906	60	2000	0	95.3	80-125	0			
o-Xylene	924	30	1000	0	92.4	75-125	0			
Toluene	1000	30	1000	0	100	70-125	0			
Xylenes, Total	2830	90	3000	0	94.3	75-125	0			
Surr: 1,2-Dichloroethane-d4	*989.5*	0	*1000*	0	*99*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1001*	0	*1000*	0	*100*	*70-130*	0			
Surr: Dibromofluoromethane	*1014*	0	*1000*	0	*101*	*70-130*	0			
Surr: Toluene-d8	*973*	0	*1000*	0	*97.3*	*70-130*	0			

The following samples were analyzed in this batch:

15051260-01A	15051260-02A	15051260-03A
15051260-04A	15051260-08A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71361** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP Sample ID: **15051260-01C DUP** Units: **mmhos/cm @25°** Analysis Date: **5/27/2015 12:15 PM**
Client ID: **Pit Bottom @ 2ft Confirmation** Run ID: **WETCHEM_150527C** SeqNo: **3292516** Prep Date: **5/27/2015** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	8.12	0.050	0	0	0		7.76	4.53	50	

The following samples were analyzed in this batch:

15051260-01C	15051260-02C	15051260-03C
15051260-04C	15051260-05A	15051260-08C

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71459** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-71459-71459** Units: **mg/Kg** Analysis Date: **5/26/2015 11:15 AM**
Client ID: Run ID: **WETCHEM_150526H** SeqNo: **3290348** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	1.0								

LCS Sample ID: **LCS-71459-71459** Units: **mg/Kg** Analysis Date: **5/26/2015 11:15 AM**
Client ID: Run ID: **WETCHEM_150526H** SeqNo: **3290349** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.39	1.0	5	0	87.8	80-120	0			

MS Sample ID: **15051260-01B MS** Units: **mg/Kg** Analysis Date: **5/26/2015 11:15 AM**
Client ID: **Pit Bottom @ 2ft Confirmation** Run ID: **WETCHEM_150526H** SeqNo: **3290352** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	3.562	0.95	4.762	0.2525	69.5	75-125	0			S

MS Sample ID: **15051260-01B MSI** Units: **mg/Kg** Analysis Date: **5/26/2015 11:15 AM**
Client ID: **Pit Bottom @ 2ft Confirmation** Run ID: **WETCHEM_150526H** SeqNo: **3290354** Prep Date: **5/22/2015** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1511	99	2947	0.2525	51.3	75-125	0			S

MSD Sample ID: **15051260-01B MSD** Units: **mg/Kg** Analysis Date: **5/26/2015 11:15 AM**
Client ID: **Pit Bottom @ 2ft Confirmation** Run ID: **WETCHEM_150526H** SeqNo: **3290353** Prep Date: **5/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	3.949	1.0	5.102	0.2525	72.5	75-125	3.562	10.3	20	S

The following samples were analyzed in this batch: 15051260-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **71465** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-71465-71465** Units: **s.u.** Analysis Date: **5/26/2015 01:47 PM**
Client ID: Run ID: **WETCHEM_150526I** SeqNo: **3290432** Prep Date: **5/26/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.03	0	4	0	101	90-110	0			

DUP Sample ID: **15051260-01B DUP** Units: **s.u.** Analysis Date: **5/26/2015 01:47 PM**
Client ID: **Pit Bottom @ 2ft Confirmation** Run ID: **WETCHEM_150526I** SeqNo: **3290434** Prep Date: **5/26/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.72	0	0	0	0	0-0	7.74	0.259	20	

DUP Sample ID: **15051278-01A DUP** Units: **s.u.** Analysis Date: **5/26/2015 01:47 PM**
Client ID: Run ID: **WETCHEM_150526I** SeqNo: **3290444** Prep Date: **5/26/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.17	0	0	0	0	0-0	6.13	0.65	20	

DUP Sample ID: **15051329-01A DUP** Units: **s.u.** Analysis Date: **5/26/2015 01:47 PM**
Client ID: Run ID: **WETCHEM_150526I** SeqNo: **3290448** Prep Date: **5/26/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.78	0	0	0	0	0-0	5.08	6.09	20	

The following samples were analyzed in this batch:

15051260-01B	15051260-02B	15051260-03B
15051260-04B	15051260-05A	15051260-08B

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

Client: HRL Compliance Solutions, Inc
Work Order: 15051260
Project: WPX Energy - AP 34-1-696 - Pit Closure

QC BATCH REPORT

Batch ID: **R164071** Instrument ID **MOIST** Method: **E160.3M**

MBLK Sample ID: **WBLKS-R164071** Units: **% of sample** Analysis Date: **5/26/2015 11:41 AM**
Client ID: Run ID: **MOIST_150522C** SeqNo: **3290074** 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-R164071** Units: **% of sample** Analysis Date: **5/26/2015 11:41 AM**
Client ID: Run ID: **MOIST_150522C** SeqNo: **3290072** 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: **15051247-02A DUP** Units: **% of sample** Analysis Date: **5/26/2015 11:41 AM**
Client ID: Run ID: **MOIST_150522C** SeqNo: **3290031** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	14.58	0.050	0	0	0		14.44	0.965	20	

DUP Sample ID: **15051260-04B DUP** Units: **% of sample** Analysis Date: **5/26/2015 11:41 AM**
Client ID: **West Wall @ 1ft Confirmation** Run ID: **MOIST_150522C** SeqNo: **3290051** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	16.01	0.050	0	0	0		15.79	1.38	20	

The following samples were analyzed in this batch:

15051260-01B	15051260-02B	15051260-03B
15051260-04B	15051260-05A	15051260-06A
15051260-07A	15051260-08B	

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 # 15051260

		SAMPLER	Kris Rowe	DATE	5/21/2015	PAGE	1 of 2
PROJECT NAME	WPX Energy - AP 34-1-695 - Pit Closure	SITE ID	Allen Point 34-1-695 Pad	TURNAROUND	24 Rush	DISPOSAL	By Lab or Return to Client
PROJECT No.		EDD FORMAT					
		PURCHASE ORDER					
COMPANY NAME	HRL COMPLIANCE SOLUTIONS Inc.	BILL TO COMPANY	WPX				
SEND REPORT TO	KRIS ROWE	INVOICE ATTN TO	Karoline Blaney				
ADDRESS	2385 F 1/2	ADDRESS					
CITY / STATE / ZIP	GRAND JUNCTION CO 81505	CITY / STATE / ZIP					
PHONE	970-243-3271	PHONE					
FAX	970-243-3280	FAX					
E-MAIL	KROWE@HRLCOMP.COM	E-MAIL					

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	DRO	GRO	BTEX	910-1 Metals	Semi Vols - PAH	SAR / EC / pH	ARSENIC
1	Pit Bottom @ 2ft Confirmation	S	5/21/2015	2:35				x	x	x	x	x	x	
2	North Wall @ 1 ft Confirmation	S	5/21/2015	2:20				x	x	x		x	x	
3	East Wall @ 1ft Confirmation	S	5/21/2015	2:00				x	x	x		x	x	
4	West Wall @ 1ft Confirmation	S	5/21/2015	2:25				x	x	x		x	x	
5	BKGD 1	S	5/21/2015	2:30									x	x
6	BKGD 2	S	5/21/2015	2:45										x
7	BKGD 3	S	5/21/2015	3:15										x
8	South Wall @ 1ft Confirmation	S	5/21/2015	1:50				x	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:	24 hr RUSH! 4.0°C	QC PACKAGE (check below)
		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		Jordan Carlo	5/21/2015	17:00
RECEIVED BY			5-21-15	1725
RELINQUISHED BY			5-21-15	1730
RECEIVED BY		Keith Wierenga	5/22/15	1000
RELINQUISHED BY				
RECEIVED BY				

From: (616) 298-1033
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J151215022303uv

Ship Date: 21MAY15
ActWgt: 75.0 LB
CAD: 2264840/INET3610

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 052115-2
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070

BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

FRI - 22 MAY 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7736 6246 3163

XX HLMA

49424
MI-US
GRR

537J3/C918/EE4B

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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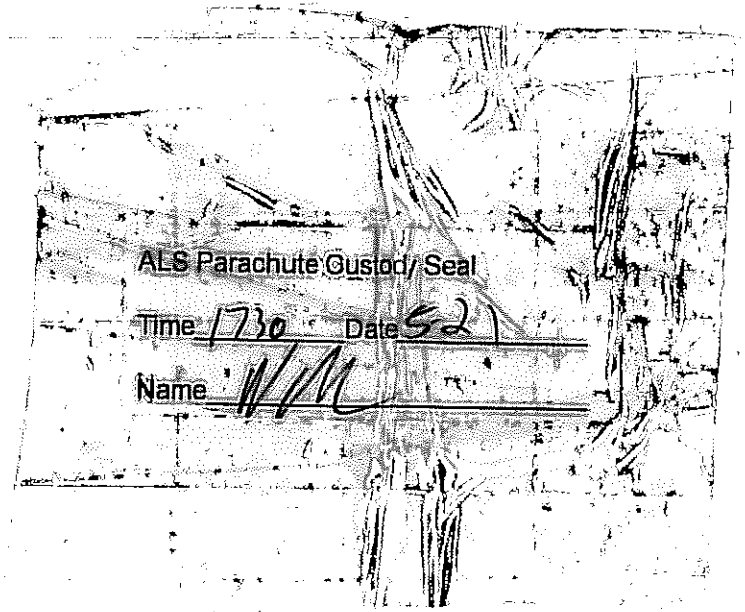
ALS Parachute Custod/ Seal
Time 1730 Date 5-2
Name

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **22-May-15 10:00**

Work Order: **15051260** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 22-May-15 (Date) Reviewed by: Lee Arnold (eSignature) 22-May-15 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.0 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	5/22/2015 11:15:37 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ADDITIONAL EAST WALL SAMPLE ANALYTICAL RESULTS

29-May-2015

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

Re: **WPX Energy - AP 34-1-696 - Pit Closure** Work Order: **15051584**

Dear Mark,

ALS Environmental received 1 sample on 29-May-2015 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 9.

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

Sincerely,

Electronically approved by: Les Arnold

Les Arnold
Senior Project Manager

Certificate No: MN 532786

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

ALS Group USA, Corp

Date: 29-May-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: **15051584**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
15051584-01	East Wall @ 2ft	Soil		5/27/2015 11:45	5/29/2015 09:30	☐

ALS Group USA, Corp

Date: 29-May-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
WorkOrder: **15051584**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
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

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

ALS Group USA, Corp

Date: *29-May-15*

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051584
Sample ID: East Wall @ 2ft
Lab ID: 15051584-01
Collection Date: 5/27/2015 11:45 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **5/29/2015**	Analyst: **IT**
DRO (C10-C28)	**9.1**		**5.1**	**mg/Kg-dry**	1	5/29/2015 02:40 PM
Surr: 4-Terphenyl-d14	*53.6*		*39-133*	*%REC*	1	5/29/2015 02:40 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep Date: **5/29/2015**	Analyst: **IT**
GRO (C6-C10)	ND		3.1	mg/Kg-dry	1	5/29/2015 03:08 PM
Surr: Toluene-d8	*109*		*50-150*	*%REC*	1	5/29/2015 03:08 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**19**		**0.050**	**% of sample**	1	5/29/2015 03:55 PM

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

ALS Laboratory Group

3352 128th Avenue, Holland, MI 49424
TF: (616) 399-6070 FX: (616) 399-6185

Chain-of-Custody

Form 202r8

WORKORDER # 1505158 4

PAGE 1 of 1

DISPOSAL (By Lab) or Return to Client

SAMPLER	Jordan Carlo	DATE	5/27/15
PROJECT NAME	WPX Energy - AP 34-1-696 - Pit Closure	SITE ID	Allen Point 34-1-696 Pad
PROJECT No.		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	HRL Compliance Solutions, Inc.	BILL TO COMPANY	WPX
SEND REPORT TO	HRL - Kris Rowe, Jordan Carlo	INVOICE ATTN TO	Karolina Blaney
ADDRESS	2385 F 1/2 Road	ADDRESS	
CITY / STATE / ZIP	Grand Junction, CO, 81505	CITY / STATE / ZIP	
PHONE	970-243-3271	PHONE	
FAX	970-243-3280	FAX	
E-MAIL	krowe@hrlcomp.com, jcarlo@hrlcomp.com	E-MAIL	

TURNAROUND: 24 Hour Rush

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	DRO	GRO
1	East Wall @2ft	S	5/27/15	11:45	1	4		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:	24 Hour Rush 3.0°C

QC PACKAGE (check below)	
	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		Jordan Carlo	5/27/15	16:00
RECEIVED BY			5-27-15	1600
RELINQUISHED BY			5-27-15	1650
RECEIVED BY		Keith Wierenga	5/29/15	0930
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **29-May-15 09:30**

Work Order: **15051584** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 29-May-15 (Date) Reviewed by: Lee Arnold (eSignature) 29-May-15 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.0 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	5/29/2015 10:52:01 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Appendix 2: Background Raw Analytical Data

ALS Group USA, Corp

Date: *28-May-15*

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: BKGD 1
Lab ID: 15051260-05
Collection Date: 5/21/2015 02:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep Date: **5/22/2015**	Analyst: **JEC**
Arsenic	**7.4**		**0.51**	**mg/Kg-dry**	1	5/22/2015 09:01 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep Date: **5/27/2015**	Analyst: **JEC**
Calcium	**150**		**5.0**	**mg/L**	10	5/27/2015 02:17 PM
Magnesium	**29**		**2.0**	**mg/L**	10	5/27/2015 02:17 PM
Sodium	**8.6**		**2.0**	**mg/L**	10	5/27/2015 02:17 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **5/27/2015**	Analyst: **JEC**
Sodium Adsorption Ratio	**0.17**		**0.010**	**none**	1	5/27/2015
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **5/27/2015**	Analyst: **JB**
Electrical Conductivity @ Saturation	**1.0**		**0.050**	**mmhos/cm @2**	10	5/27/2015 12:15 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**24**		**0.050**	**% of sample**	1	5/26/2015 11:41 AM
PH			**SW9045D**		Prep Date: **5/26/2015**	Analyst: **KF**
pH	**7.0**			**s.u.**	1	5/26/2015 01:47 PM

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

ALS Group USA, Corp

Date: *28-May-15*

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: BKGD 2
Lab ID: 15051260-06
Collection Date: 5/21/2015 02:45 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep Date: **5/22/2015**	Analyst: **JEC**
Arsenic	**7.3**		**0.48**	**mg/Kg-dry**	1	5/22/2015 09:07 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**25**		**0.050**	**% of sample**	1	5/26/2015 11:41 AM

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

ALS Group USA, Corp

Date: *28-May-15*

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - AP 34-1-696 - Pit Closure
Work Order: 15051260
Sample ID: BKGD 3
Lab ID: 15051260-07
Collection Date: 5/21/2015 03:15 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep Date: **5/22/2015**	Analyst: **JEC**
Arsenic	**6.9**		**0.44**	**mg/Kg-dry**	1	5/22/2015 09:12 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**24**		**0.050**	**% of sample**	1	5/26/2015 11:41 AM

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

Appendix 3: Landfarm Confirmation Raw Analytical Data

22-Jun-2015

Karolina Blaney
WPX Energy Rocky Mountain, LLC
1058 Country Rd 215
Parachute, CO 81635

Re: **AP 34-1-696 Landfarm** Work Order: **1506985**

Dear Karolina,

ALS Environmental received 1 sample on 17-Jun-2015 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,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Certificate No: MN 532786

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

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Date: 22-Jun-15

Client: WPX Energy Rocky Mountain, LLC
Project: AP 34-1-696 Landfarm
Work Order: **1506985**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1506985-01	AP 34-1-696 Landfarm	Soil		6/9/2015 10:30	6/17/2015 09:30	☐

ALS Group USA, Corp

Date: 22-Jun-15

Client: WPX Energy Rocky Mountain, LLC
Project: AP 34-1-696 Landfarm
Work Order: 1506985

Case Narrative

Batch 72402, Method PH_9045_S, Sample 1506985-01A: Sample was analyzed out of hold time due to receipt after expiration date. Results should be considered estimated.

ALS Group USA, Corp

Date: 22-Jun-15

Qualifier	Description
*	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
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
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

Units Reported	Description
% 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: *22-Jun-15*

Client: WPX Energy Rocky Mountain, LLC
Project: AP 34-1-696 Landfarm
Work Order: 1506985
Sample ID: AP 34-1-696 Landfarm
Lab ID: 1506985-01
Collection Date: 6/9/2015 10:30 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3550 / 6/17/15	Analyst: **IT**
DRO (C10-C28)	**350**		**4.8**	**mg/Kg-dry**	1	6/17/2015 07:26 PM
Surr: 4-Terphenyl-d14	*63.9*		*39-133*	*%REC*	1	6/17/2015 07:26 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep: SW5035 / 6/17/15	Analyst: **IT**
GRO (C6-C10)	**53**		**2.9**	**mg/Kg-dry**	1	6/17/2015 06:08 PM
Surr: Toluene-d8	*114*		*50-150*	*%REC*	1	6/17/2015 06:08 PM
MERCURY BY CVAA			**SW7471B**		Prep: SW7471 / 6/17/15	Analyst: **LR**
Mercury	**0.035**		**0.014**	**mg/Kg-dry**	1	6/17/2015 03:05 PM
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3050B / 6/17/15	Analyst: **JEC**
Arsenic	**14**		**0.45**	**mg/Kg-dry**	1	6/17/2015 07:12 PM
Barium	**1,100**		**0.45**	**mg/Kg-dry**	1	6/17/2015 07:12 PM
Cadmium	ND		0.90	mg/Kg-dry	1	6/17/2015 07:12 PM
Chromium	**45**		**0.45**	**mg/Kg-dry**	1	6/17/2015 07:12 PM
Copper	**25**		**0.90**	**mg/Kg-dry**	1	6/17/2015 07:12 PM
Lead	**3.6**		**0.45**	**mg/Kg-dry**	1	6/17/2015 07:12 PM
Nickel	**48**		**0.45**	**mg/Kg-dry**	1	6/17/2015 07:12 PM
Selenium	**1.3**		**0.90**	**mg/Kg-dry**	1	6/17/2015 07:12 PM
Silver	ND		0.45	mg/Kg-dry	1	6/17/2015 07:12 PM
Zinc	**29**		**0.90**	**mg/Kg-dry**	1	6/17/2015 07:12 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep: USDA Method 20B / 6/19/15	Analyst: **JEC**
Calcium	**160**		**5.0**	**mg/L**	10	6/19/2015 12:29 PM
Magnesium	**26**		**2.0**	**mg/L**	10	6/19/2015 12:29 PM
Sodium	**890**		**2.0**	**mg/L**	10	6/19/2015 12:29 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep: USDA Method 20B / 6/19/15	Analyst: **JEC**
Sodium Adsorption Ratio	**17**		**0.010**	**none**	1	6/19/2015
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3550 / 6/17/15	Analyst: **RS**
Acenaphthene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Anthracene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Benzo(a)anthracene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Benzo(a)pyrene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Benzo(b)fluoranthene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Benzo(g,h,i)perylene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Benzo(k)fluoranthene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Chrysene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Dibenzo(a,h)anthracene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM

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

ALS Group USA, Corp

Date: *22-Jun-15*

Client: WPX Energy Rocky Mountain, LLC
Project: AP 34-1-696 Landfarm
Work Order: 1506985
Sample ID: AP 34-1-696 Landfarm
Lab ID: 1506985-01
Collection Date: 6/9/2015 10:30 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Fluorene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Naphthalene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Pyrene	ND		7.7	µg/Kg-dry	1	6/17/2015 08:03 PM
Surr: 2-Fluorobiphenyl	*67.3*		*12-100*	*%REC*	1	6/17/2015 08:03 PM
Surr: 4-Terphenyl-d14	*98.5*		*25-137*	*%REC*	1	6/17/2015 08:03 PM
Surr: Nitrobenzene-d5	*63.3*		*37-107*	*%REC*	1	6/17/2015 08:03 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 6/17/15	Analyst: **AK**
Benzene	ND		35	µg/Kg-dry	1	6/17/2015 01:46 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	6/17/2015 01:46 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	6/17/2015 01:46 PM
o-Xylene	ND		35	µg/Kg-dry	1	6/17/2015 01:46 PM
Toluene	ND		35	µg/Kg-dry	1	6/17/2015 01:46 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/17/2015 01:46 PM
Surr: 1,2-Dichloroethane-d4	*99.4*		*70-130*	*%REC*	1	6/17/2015 01:46 PM
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	1	6/17/2015 01:46 PM
Surr: Dibromofluoromethane	*90.4*		*70-130*	*%REC*	1	6/17/2015 01:46 PM
Surr: Toluene-d8	*92.6*		*70-130*	*%REC*	1	6/17/2015 01:46 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep: USDA Method 20B / 6/19/15	Analyst: **JB**
Electrical Conductivity @ Saturation	**6.2**		**0.050**	**mmhos/cm @2**	10	6/19/2015 04:45 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JB**
Chromium, Trivalent	**45**		**0.59**	**mg/Kg-dry**	1	6/18/2015 03:00 PM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 6/17/15	Analyst: **MB**
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	6/18/2015 12:00 PM
MOISTURE			**E160.3M**			Analyst: **PT**
Moisture	**15**		**0.050**	**% of sample**	1	6/17/2015 12:15 PM
PH			**SW9045D**		Prep: EXTRACT / 6/17/15	Analyst: **STP**
pH	**8.4**	H		**s.u.**	1	6/17/2015 04:00 PM

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

QC BATCH REPORT

Batch ID: **72394** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-72394-72394** Units: **mg/Kg** Analysis Date: **6/17/2015 04:39 PM**

Client ID: Run ID: **GC8_150617A** SeqNo: **3328615** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	*1.488*	0	*2*	0	*74.4*	*39-133*	0			

LCS Sample ID: **DLCSS1-72394-72394** Units: **mg/Kg** Analysis Date: **6/17/2015 04:55 PM**

Client ID: Run ID: **GC8_150617A** SeqNo: **3328616** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	161.8	5.0	200	0	80.9	61-109	0			
Surr: 4-Terphenyl-d14	*1.241*	0	*2*	0	*62.1*	*39-133*	0			

MS Sample ID: **1506989-02B MS** Units: **mg/Kg** Analysis Date: **6/17/2015 05:26 PM**

Client ID: Run ID: **GC8_150617A** SeqNo: **3328617** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	257.4	8.3	331.8	0	77.6	48-110	0			
Surr: 4-Terphenyl-d14	*2.131*	0	*3.318*	0	*64.2*	*39-133*	0			

MSD Sample ID: **1506989-02B MSD** Units: **mg/Kg** Analysis Date: **6/17/2015 05:55 PM**

Client ID: Run ID: **GC8_150617A** SeqNo: **3328618** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	219.9	8.1	325.4	0	67.6	48-110	257.4	15.7	30	
Surr: 4-Terphenyl-d14	*1.845*	0	*3.254*	0	*56.7*	*39-133*	2.131	*14.4*	*30*	

The following samples were analyzed in this batch: 1506985-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1506985
Project: AP 34-1-696 Landfarm

QC BATCH REPORT

Batch ID: **72396** Instrument ID **GC9** Method: **SW8015D**

MBLK Sample ID: **MBLK-72396-72396** Units: **µg/Kg** Analysis Date: **6/17/2015 01:59 PM**
Client ID: Run ID: **GC9_150617A** SeqNo: **3327462** Prep Date: **6/17/2015** 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								
Surr: Toluene-d8	*5400*	0	*5000*	0	*108*	*50-150*	0			

LCS Sample ID: **LCS-72396-72396** Units: **µg/Kg** Analysis Date: **6/17/2015 01:35 PM**
Client ID: Run ID: **GC9_150617A** SeqNo: **3327461** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	495300	2,500	500000	0	99.1	70-130	0			
Surr: Toluene-d8	*5206*	0	*5000*	0	*104*	*50-150*	0			

MS Sample ID: **1506988-01A MS** Units: **µg/Kg** Analysis Date: **6/17/2015 04:03 PM**
Client ID: Run ID: **GC9_150617A** SeqNo: **3327467** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	557300	2,500	500000	0	111	70-130	0			
Surr: Toluene-d8	*5254*	0	*5000*	0	*105*	*50-150*	0			

MSD Sample ID: **1506988-01A MSD** Units: **µg/Kg** Analysis Date: **6/17/2015 04:28 PM**
Client ID: Run ID: **GC9_150617A** SeqNo: **3327468** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	544900	2,500	500000	0	109	70-130	557300	2.25	30	
Surr: Toluene-d8	*5454*	0	*5000*	0	*109*	*50-150*	5254	*3.72*	*30*	

The following samples were analyzed in this batch: 1506985-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1506985
Project: AP 34-1-696 Landfarm

QC BATCH REPORT

Batch ID: **72363** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-72363-72363** Units: **mg/Kg** Analysis Date: **6/17/2015 02:34 PM**
Client ID: Run ID: **HG1_150617A** SeqNo: **3327128** Prep Date: **6/17/2015** 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-72363-72363** Units: **mg/Kg** Analysis Date: **6/17/2015 02:37 PM**
Client ID: Run ID: **HG1_150617A** SeqNo: **3327129** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1861	0.020	0.1665	0	112	80-120	0			

MS Sample ID: **1506718-01BMS** Units: **mg/Kg** Analysis Date: **6/17/2015 02:51 PM**
Client ID: Run ID: **HG1_150617A** SeqNo: **3327134** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1548	0.014	0.1164	0.03299	105	75-125	0			

MSD Sample ID: **1506718-01BMSD** Units: **mg/Kg** Analysis Date: **6/17/2015 02:53 PM**
Client ID: Run ID: **HG1_150617A** SeqNo: **3327135** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.154	0.014	0.1162	0.03299	104	75-125	0.1548	0.534	35	

The following samples were analyzed in this batch: 1506985-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1506985
Project: AP 34-1-696 Landfarm

QC BATCH REPORT

Batch ID: **72392** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK Sample ID: **MBLK-72392-72392** Units: **mg/L** Analysis Date: **6/17/2015 04:25 PM**
Client ID: Run ID: **ICP2_150617B** SeqNo: **3327678** Prep Date: **6/17/2015** 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	0.50								
Chromium	ND	0.25								
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	0.08183	0.25								J
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	0.1759	0.50								J

LCS Sample ID: **LCS-72392-72392** Units: **mg/L** Analysis Date: **6/17/2015 04:30 PM**
Client ID: Run ID: **ICP2_150617B** SeqNo: **3327679** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.05	0.25	5	0	101	80-120	0			
Barium	4.952	0.25	5	0	99	80-120	0			
Cadmium	4.859	0.50	5	0	97.2	80-120	0			
Chromium	5.322	0.25	5	0	106	80-120	0			
Copper	5.29	0.50	5	0	106	80-120	0			
Lead	5.212	0.25	5	0	104	80-120	0			
Nickel	5.626	0.25	5	0	113	80-120	0			
Selenium	5.245	0.50	5	0	105	80-120	0			
Silver	5.1	0.25	5	0	102	80-120	0			
Zinc	4.554	0.50	5	0	91.1	80-120	0			

MS Sample ID: **1506988-01AMS** Units: **mg/Kg** Analysis Date: **6/17/2015 07:25 PM**
Client ID: Run ID: **ICP2_150617B** SeqNo: **3327709** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.91	0.34	6.711	4.642	108	75-125	0			
Barium	296.6	0.34	6.711	291.2	81.3	75-125	0			O
Cadmium	6.309	0.67	6.711	0.09715	92.6	75-125	0			
Chromium	42.02	0.34	6.711	37.25	71.1	75-125	0			SO
Copper	21.13	0.67	6.711	14.76	95	75-125	0			
Lead	8.537	0.34	6.711	2.282	93.2	75-125	0			
Nickel	42.12	0.34	6.711	36.55	83	75-125	0			O
Selenium	7.295	0.67	6.711	0.5587	100	75-125	0			
Silver	6.798	0.34	6.711	-0.02182	102	75-125	0			
Zinc	24.31	0.67	6.711	19.02	78.8	75-125	0			

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1506985
Project: AP 34-1-696 Landfarm

QC BATCH REPORT

Batch ID: **72392** Instrument ID **ICP2** Method: **SW846 6010C**

MS Sample ID: **1506988-01AMS** Units: **mg/Kg** Analysis Date: **6/18/2015 08:49 AM**
Client ID: Run ID: **ICP2_150618A** SeqNo: **3328604** Prep Date: **6/17/2015** DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.34	0.67	6.711	4.778	113	75-125	0			
Cadmium	6.416	1.3	6.711	-0.1772	98.2	75-125	0			
Chromium	45.27	0.67	6.711	40.34	73.4	75-125	0			SO
Copper	21.87	1.3	6.711	15.24	98.7	75-125	0			
Lead	9.925	0.67	6.711	3.064	102	75-125	0			
Nickel	44.9	0.67	6.711	39.44	81.4	75-125	0			O
Selenium	7.498	1.3	6.711	0.4474	105	75-125	0			
Silver	7.6	0.67	6.711	-0.06199	114	75-125	0			
Zinc	24.8	1.3	6.711	18.91	87.7	75-125	0			

MSD Sample ID: **1506988-01AMSD** Units: **mg/Kg** Analysis Date: **6/17/2015 05:01 PM**
Client ID: Run ID: **ICP2_150617B** SeqNo: **3327684** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.69	0.34	6.748	4.642	134	75-125	11.91	13.9	20	S
Barium	317.7	0.34	6.748	291.2	394	75-125	296.6	6.88	20	SO
Cadmium	6.707	0.67	6.748	0.09715	98	75-125	6.309	6.12	20	
Chromium	46.04	0.34	6.748	37.25	130	75-125	42.02	9.12	20	SO
Copper	24.28	0.67	6.748	14.76	141	75-125	21.13	13.9	20	S
Lead	10.33	0.34	6.748	2.282	119	75-125	8.537	19	20	
Nickel	49.09	0.34	6.748	36.55	186	75-125	42.12	15.3	20	SO
Selenium	8.301	0.67	6.748	0.5587	115	75-125	7.295	12.9	20	
Silver	7.19	0.34	6.748	-0.02182	107	75-125	6.798	5.61	20	
Zinc	29.09	0.67	6.748	19.02	149	75-125	24.31	17.9	20	S

MSD Sample ID: **1506988-01AMSD** Units: **mg/Kg** Analysis Date: **6/18/2015 08:54 AM**
Client ID: Run ID: **ICP2_150618A** SeqNo: **3328606** Prep Date: **6/17/2015** DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.62	0.67	6.748	4.778	116	75-125	12.34	2.27	20	
Cadmium	6.361	1.3	6.748	-0.1772	96.9	75-125	6.416	0.858	20	
Chromium	47.32	0.67	6.748	40.34	103	75-125	45.27	4.42	20	O
Copper	23.96	1.3	6.748	15.24	129	75-125	21.87	9.11	20	S
Lead	10.48	0.67	6.748	3.064	110	75-125	9.925	5.44	20	
Nickel	48.81	0.67	6.748	39.44	139	75-125	44.9	8.34	20	SO
Selenium	7.646	1.3	6.748	0.4474	107	75-125	7.498	1.95	20	
Silver	7.624	0.67	6.748	-0.06199	114	75-125	7.6	0.314	20	
Zinc	26.1	1.3	6.748	18.91	107	75-125	24.8	5.14	20	

The following samples were analyzed in this batch: 1506985-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1506985
Project: AP 34-1-696 Landfarm

QC BATCH REPORT

Batch ID: **72397** Instrument ID **ICP2** Method: **SW846 6010C**

DUP	Sample ID: **1506988-01ADUP**			Units: **mg/L**			Analysis Date: **6/19/2015 12:41 PM**			
Client ID:		Run ID: **ICP2_150619A**		SeqNo: **3331681**		Prep Date: **6/19/2015**		DF: **10**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	89.21	5.0	0	0	0	0-0	108.9	19.9		
Magnesium	10.64	2.0	0	0	0	0-0	12.86	18.9		
Sodium	767.1	2.0	0	0	0	0-0	875.6	13.2		

DUP	Sample ID: **1506988-01ADUP**			Units: **none**			Analysis Date: **6/19/2015**			
Client ID:		Run ID: **SAR_150619B**		SeqNo: **3331741**		Prep Date: **6/19/2015**		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	20.45	0.010	0	0	0		21.14	3.34	50	

The following samples were analyzed in this batch: 1506985-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1506985
Project: AP 34-1-696 Landfarm

QC BATCH REPORT

Batch ID: **72393** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-72393-72393** Units: **µg/Kg** Analysis Date: **6/17/2015 05:39 PM**
Client ID: Run ID: **SVMS5_150617A** SeqNo: **3327780** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	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								
Surr: 2-Fluorobiphenyl	*1305*	0	*1667*	0	*78.3*	*12-100*	0			
Surr: 4-Terphenyl-d14	*2024*	0	*1667*	0	*121*	*25-137*	0			
Surr: Nitrobenzene-d5	*1330*	0	*1667*	0	*79.8*	*37-107*	0			

LCS Sample ID: **SLCSS1-72393-72393** Units: **µg/Kg** Analysis Date: **6/17/2015 06:01 PM**
Client ID: Run ID: **SVMS5_150617A** SeqNo: **3327781** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	448.7	6.7	666.7	0	67.3	45-110	0			
Anthracene	539	6.7	666.7	0	80.8	55-105	0			
Benzo(a)anthracene	553.7	6.7	666.7	0	83	50-110	0			
Benzo(a)pyrene	539.3	6.7	666.7	0	80.9	50-110	0			
Benzo(b)fluoranthene	558.3	6.7	666.7	0	83.7	45-115	0			
Benzo(g,h,i)perylene	515.7	6.7	666.7	0	77.3	40-125	0			
Benzo(k)fluoranthene	550.7	6.7	666.7	0	82.6	45-115	0			
Chrysene	534.3	6.7	666.7	0	80.1	55-110	0			
Dibenzo(a,h)anthracene	513.3	6.7	666.7	0	77	40-125	0			
Fluoranthene	514.3	6.7	666.7	0	77.1	55-115	0			
Fluorene	481	6.7	666.7	0	72.1	50-110	0			
Indeno(1,2,3-cd)pyrene	518	6.7	666.7	0	77.7	40-120	0			
Naphthalene	423.3	6.7	666.7	0	63.5	40-105	0			
Pyrene	600.3	6.7	666.7	0	90	45-125	0			
Surr: 2-Fluorobiphenyl	*1164*	0	*1667*	0	*69.8*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1760*	0	*1667*	0	*106*	*25-137*	0			
Surr: Nitrobenzene-d5	*1176*	0	*1667*	0	*70.5*	*37-107*	0			

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1506985
Project: AP 34-1-696 Landfarm

QC BATCH REPORT

Batch ID: **72393** Instrument ID **SVMS5** Method: **SW846 8270D**

MS Sample ID: **1506985-01A MS** Units: **µg/Kg** Analysis Date: **6/17/2015 07:18 PM**
Client ID: **AP 34-1-696 Landfarm** Run ID: **SVMS5_150617A** SeqNo: **3327782** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1074	13	1327	0	80.9	45-110	0			
Anthracene	1208	13	1327	0	91	55-105	0			
Benzo(a)anthracene	1204	13	1327	0	90.7	50-110	0			
Benzo(a)pyrene	1200	13	1327	0	90.4	50-110	0			
Benzo(b)fluoranthene	1229	13	1327	0	92.6	45-115	0			
Benzo(g,h,i)perylene	1156	13	1327	0	87.1	40-125	0			
Benzo(k)fluoranthene	1164	13	1327	0	87.7	45-115	0			
Chrysene	1152	13	1327	0	86.8	55-110	0			
Dibenzo(a,h)anthracene	1133	13	1327	0	85.3	40-125	0			
Fluoranthene	1178	13	1327	0	88.8	55-115	0			
Fluorene	1122	13	1327	0	84.5	50-110	0			
Indeno(1,2,3-cd)pyrene	1168	13	1327	0	88	40-120	0			
Naphthalene	1001	13	1327	0	75.4	40-105	0			
Pyrene	1322	13	1327	0	99.6	45-125	0			
Surr: 2-Fluorobiphenyl	*2644*	0	*3317*	0	*79.7*	*12-100*	0			
Surr: 4-Terphenyl-d14	*3737*	0	*3317*	0	*113*	*25-137*	0			
Surr: Nitrobenzene-d5	*2575*	0	*3317*	0	*77.6*	*37-107*	0			

MSD Sample ID: **1506985-01A MSD** Units: **µg/Kg** Analysis Date: **6/17/2015 07:41 PM**
Client ID: **AP 34-1-696 Landfarm** Run ID: **SVMS5_150617A** SeqNo: **3327783** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1006	13	1271	0	79.1	45-110	1074	6.58	30	
Anthracene	1166	13	1271	0	91.8	55-105	1208	3.46	30	
Benzo(a)anthracene	1160	13	1271	0	91.3	50-110	1204	3.68	30	
Benzo(a)pyrene	1177	13	1271	0	92.6	50-110	1200	1.99	30	
Benzo(b)fluoranthene	1177	13	1271	0	92.6	45-115	1229	4.28	30	
Benzo(g,h,i)perylene	1103	13	1271	0	86.8	40-125	1156	4.74	30	
Benzo(k)fluoranthene	1191	13	1271	0	93.7	45-115	1164	2.33	30	
Chrysene	1106	13	1271	0	87	55-110	1152	4.11	30	
Dibenzo(a,h)anthracene	1093	13	1271	0	86	40-125	1133	3.52	30	
Fluoranthene	1139	13	1271	0	89.6	55-115	1178	3.44	30	
Fluorene	1050	13	1271	0	82.6	50-110	1122	6.61	30	
Indeno(1,2,3-cd)pyrene	1116	13	1271	0	87.8	40-120	1168	4.56	30	
Naphthalene	950.4	13	1271	0	74.8	40-105	1001	5.13	30	
Pyrene	1303	13	1271	0	103	45-125	1322	1.47	30	
Surr: 2-Fluorobiphenyl	*2528*	0	*3177*	0	*79.6*	*12-100*	2644	*4.49*	*40*	
Surr: 4-Terphenyl-d14	*3701*	0	*3177*	0	*116*	*25-137*	3737	*0.967*	*40*	
Surr: Nitrobenzene-d5	*2394*	0	*3177*	0	*75.4*	*37-107*	2575	*7.29*	*40*	

The following samples were analyzed in this batch: 1506985-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1506985
Project: AP 34-1-696 Landfarm

QC BATCH REPORT

Batch ID: **72395** Instrument ID **VMS6** Method: **SW8260B**

MBLK Sample ID: **MBLK-72395-72395** Units: **µg/Kg** Analysis Date: **6/17/2015 03:01 PM**
Client ID: Run ID: **VMS6_150617A** SeqNo: **3327254** Prep Date: **6/17/2015** 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	*993*	0	*1000*	0	*99.3*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*948.5*	0	*1000*	0	*94.8*	*70-130*	0			
Surr: Dibromofluoromethane	*959.5*	0	*1000*	0	*96*	*70-130*	0			
Surr: Toluene-d8	*1002*	0	*1000*	0	*100*	*70-130*	0			

LCS Sample ID: **LCS-72395-72395** Units: **µg/Kg** Analysis Date: **6/17/2015 12:57 PM**
Client ID: Run ID: **VMS6_150617A** SeqNo: **3327253** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	966.5	30	1000	0	96.6	75-125	0			
Ethylbenzene	1028	30	1000	0	103	75-125	0			
m,p-Xylene	2068	60	2000	0	103	80-125	0			
o-Xylene	996.5	30	1000	0	99.6	75-125	0			
Toluene	1030	30	1000	0	103	70-125	0			
Xylenes, Total	3065	90	3000	0	102	75-125	0			
Surr: 1,2-Dichloroethane-d4	*995*	0	*1000*	0	*99.5*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*967.5*	0	*1000*	0	*96.8*	*70-130*	0			
Surr: Dibromofluoromethane	*994.5*	0	*1000*	0	*99.4*	*70-130*	0			
Surr: Toluene-d8	*1022*	0	*1000*	0	*102*	*70-130*	0			

The following samples were analyzed in this batch: 1506985-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1506985
Project: AP 34-1-696 Landfarm

QC BATCH REPORT

Batch ID: **72397** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP Sample ID: **1506988-01A DUP** Units: **mmhos/cm @25°** Analysis Date: **6/19/2015 04:45 PM**

Client ID: Run ID: **WETCHEM_150619H** SeqNo: **3332238** Prep Date: **6/19/2015** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	5.17	0.050	0	0	0		5.71	9.93	50	

The following samples were analyzed in this batch: 1506985-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1506985
Project: AP 34-1-696 Landfarm

QC BATCH REPORT

Batch ID: **72402** Instrument ID **WETCHEM** Method: **SW9045D**

LCS	Sample ID: **LCS-72402-72402**				Units: **s.u.**			Analysis Date: **6/17/2015 04:00 PM**			
Client ID:		Run ID: **WETCHEM_150617H**			SeqNo: **3327198**			Prep Date: **6/17/2015**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	4.09	0	4	0	102	90-110	0				

DUP	Sample ID: **1506982-01A DUP**				Units: **s.u.**			Analysis Date: **6/17/2015 04:00 PM**			
Client ID:		Run ID: **WETCHEM_150617H**			SeqNo: **3327204**			Prep Date: **6/17/2015**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	9.24	0	0	0	0	0-0	8.96	3.08	20		

The following samples were analyzed in this batch: 1506985-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1506985
Project: AP 34-1-696 Landfarm

QC BATCH REPORT

Batch ID: **72462** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-72462-72462** Units: **mg/Kg** Analysis Date: **6/18/2015 12:00 PM**
Client ID: Run ID: **WETCHEM_150618F** SeqNo: **3329158** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	1.0								

LCS Sample ID: **LCS-72462-72462** Units: **mg/Kg** Analysis Date: **6/18/2015 12:00 PM**
Client ID: Run ID: **WETCHEM_150618F** SeqNo: **3329157** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.31	1.0	5	0	86.2	80-120	0			

MS Sample ID: **1506792-01A MS** Units: **mg/Kg** Analysis Date: **6/18/2015 12:00 PM**
Client ID: Run ID: **WETCHEM_150618F** SeqNo: **3329148** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2.9	1.0	5	0.07619	56.5	75-125	0			S

MS Sample ID: **1506792-01A MSI** Units: **mg/Kg** Analysis Date: **6/18/2015 12:00 PM**
Client ID: Run ID: **WETCHEM_150618F** SeqNo: **3329150** Prep Date: **6/17/2015** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2170	100	2714	0.07619	79.9	75-125	0			

MSD Sample ID: **1506792-01A MSD** Units: **mg/Kg** Analysis Date: **6/18/2015 12:00 PM**
Client ID: Run ID: **WETCHEM_150618F** SeqNo: **3329149** Prep Date: **6/17/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	3.347	1.0	5.102	0.07619	64.1	75-125	2.9	14.3	20	S

The following samples were analyzed in this batch: 1506985-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1506985
Project: AP 34-1-696 Landfarm

QC BATCH REPORT

Batch ID: **R165689** Instrument ID **MOIST** Method: **E160.3M**

MBLK Sample ID: **WBLKS-R165689** Units: **% of sample** Analysis Date: **6/17/2015 12:15 PM**
Client ID: Run ID: **MOIST_150617A** SeqNo: **3327433** 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-R165689** Units: **% of sample** Analysis Date: **6/17/2015 12:15 PM**
Client ID: Run ID: **MOIST_150617A** SeqNo: **3327432** 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: **1506982-01A DUP** Units: **% of sample** Analysis Date: **6/17/2015 12:15 PM**
Client ID: Run ID: **MOIST_150617A** SeqNo: **3327429** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	33.48	0.050	0	0	0		33.19	0.87	20	

The following samples were analyzed in this batch: 1506985-01A

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

ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r8

WORKORDER # 1506985

		SAMPLER		DATE	6/15/2015	PAGE	1 of 1
PROJECT NAME	AP 34-1-696 landfarm	SITE ID	AP 34-1-696 landfarm	TURNAROUND	24 hrs	DISPOSAL	By Lab or Return to Client
PROJECT No.		EDD FORMAT					
		PURCHASE ORDER					
COMPANY NAME	WPX Energy	BILL TO COMPANY	WPX Energy				
SEND REPORT TO	Blaney	INVOICE ATTN TO	Karolina Blaney; Leo Braun				
ADDRESS		ADDRESS	1058 Co Rd 215				
CITY / STATE / ZIP		CITY / STATE / ZIP	Parachure CO 81635				
PHONE		PHONE	970-683-2295				
FAX		FAX					
E-MAIL	Karolina.blaney@wpxenergy.com;	E-MAIL	Karolina.blaney@wpxenergy.com; leo.braun@wpxenergy.com				

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	910-1
1	AP 34-1-696 landfarm	S	6/9/2015	10:30	1		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)	
4.8° C	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	Karolina Blaney	Karolina Blaney	6/15/2015	16:00:00 PM
RECEIVED BY			6-15-15	1630
RELINQUISHED BY			6-15-15	1720
RECEIVED BY		Keith Wiebenga	6/17/15	0930
RELINQUISHED BY				
RECEIVED BY				

From: (616) 298-1033
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J151215022303uv

Ship Date: 15JUN15
ActWgt: 48.0 LB
CAD: 2264840/INET3610

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 061515-1
Invoice #
PO # Parachute
Dept # 1

SHIP TO: (616) 399-6070

BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

2 of 2

MPS# 7738 3801 9237
0263

Mstr# 7738 3801 9112 0201

XX HLMA

TUE - 16 JUN 10:30A
PRIORITY OVERNIGHT

49424
MI-US
GRR

537J1/8A0E/EE4B

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. Your 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 ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **WPX** Date/Time Received: **17-Jun-15 09:30**

Work Order: **1506985** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 17-Jun-15 (Date) Reviewed by: Chad Whelton (eSignature) 17-Jun-15 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.8 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	6/17/2015 11:05:38 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: