






Legend

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

DOE 1-W-27
Arsenic Background Sample Location Map
T6S R95W, Section 27

March 11, 2015





29-Aug-2014

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

Re: **WPX DOE 1-W 27 Cuttings 8.22.14**

Work Order: **14081236**

Dear Mark,

ALS Environmental received 1 sample on 23-Aug-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 22.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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Environmental The ALS logo, which is a stylized blue triangle with a yellow flame inside.

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RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX DOE 1-W 27 Cuttings 8.22.14
Work Order: 14081236

Work Order Sample Summary

| <u>Lab Samp ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Tag Number</u> | <u>Collection Date</u> | <u>Date Received</u> | <u>Hold</u> |
|--------------------|-------------------------|---------------|-------------------|------------------------|----------------------|--------------------------|
| 14081236-01 | Cuttings | Soil | | 8/22/2014 11:40 | 8/23/2014 10:00 | <input type="checkbox"/> |

Client: HRL Compliance Solutions, Inc
Project: WPX DOE 1-W 27 Cuttings 8.22.14
Work Order: 14081236

Case Narrative

Batch 62022 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 62037 sample 14081236-01 DRO surrogate recovery was high due to matrix interference. No data requires qualification.

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

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

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

ALS Group USA, Corp

Date: 29-Aug-14

Client: HRL Compliance Solutions, Inc
Project: WPX DOE 1-W 27 Cuttings 8.22.14
Sample ID: Cuttings
Collection Date: 8/22/2014 11:40 AM

Work Order: 14081236
Lab ID: 14081236-01
Matrix: SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|--|--------------|------|------------------------|------------------|---------------------------------|---------------------|
| DIESEL RANGE ORGANICS BY GC-FID | | | | | | |
| DRO (C10-C28) | 520 | | SW8015M | | Prep: SW3541 / 8/26/14 | Analyst: IT |
| Surr: 4-Terphenyl-d14 | 260 | S | 39-133 | %REC | 1 | 8/27/2014 03:22 AM |
| GASOLINE RANGE ORGANICS BY GC-FID | | | | | | |
| GRO (C6-C10) | 110 | | SW8015 | | Prep: SW5035 / 8/26/14 | Analyst: IT |
| Surr: Toluene-d8 | 104 | | 50-150 | %REC | 1 | 8/26/2014 03:22 PM |
| MERCURY BY CVAA | | | | | | |
| Mercury | 0.053 | | SW7471 | | Prep: SW7471 / 8/25/14 | Analyst: LR |
| | | | 0.014 | mg/Kg-dry | 1 | 8/25/2014 04:23 PM |
| SOLUBLE CATIONS FOR SAR | | | | | | |
| | | | SW846 6010C | | Prep: USDA Method 20B / 8/27/14 | Analyst: JEJ |
| Calcium | 200 | | 5.0 | mg/L | 10 | 8/27/2014 05:04 PM |
| Magnesium | 12 | | 2.0 | mg/L | 10 | 8/27/2014 05:04 PM |
| Sodium | 1,400 | | 2.0 | mg/L | 10 | 8/27/2014 05:04 PM |
| METALS BY ICP-MS | | | | | | |
| | | | SW6020A | | Prep: SW3050B / 8/25/14 | Analyst: ML |
| Arsenic | 5.2 | | 2.1 | mg/Kg-dry | 5 | 8/26/2014 03:09 AM |
| Barium | 4,400 | | 21 | mg/Kg-dry | 50 | 8/26/2014 12:38 PM |
| Cadmium | ND | | 0.83 | mg/Kg-dry | 5 | 8/26/2014 03:09 AM |
| Chromium | 11 | | 2.1 | mg/Kg-dry | 5 | 8/26/2014 03:09 AM |
| Copper | 21 | | 2.1 | mg/Kg-dry | 5 | 8/26/2014 03:09 AM |
| Lead | 13 | | 2.1 | mg/Kg-dry | 5 | 8/26/2014 03:09 AM |
| Nickel | 12 | | 2.1 | mg/Kg-dry | 5 | 8/26/2014 03:09 AM |
| Selenium | ND | | 2.1 | mg/Kg-dry | 5 | 8/26/2014 03:09 AM |
| Silver | ND | | 2.1 | mg/Kg-dry | 5 | 8/26/2014 03:09 AM |
| Zinc | 45 | | 4.1 | mg/Kg-dry | 5 | 8/26/2014 03:09 AM |
| SODIUM ADSORPTION RATIO | | | | | | |
| | | | USDA H60 METHOD | | Prep: USDA Method 20B / 8/27/14 | Analyst: JEJ |
| Sodium Adsorption Ratio | 26 | | 0.010 | none | 1 | 8/27/2014 |
| SEMI-VOLATILE ORGANIC COMPOUNDS | | | | | | |
| | | | SW846 8270D | | Prep: SW3541 / 8/26/14 | Analyst: MK |
| Acenaphthene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Acenaphthylene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Anthracene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Benzo(a)anthracene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Benzo(a)pyrene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Benzo(b)fluoranthene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Benzo(g,h,i)perylene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Benzo(k)fluoranthene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Chrysene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |

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

ALS Group USA, Corp

Date: 29-Aug-14

Client: HRL Compliance Solutions, Inc
Project: WPX DOE 1-W 27 Cuttings 8.22.14
Sample ID: Cuttings
Collection Date: 8/22/2014 11:40 AM

Work Order: 14081236
Lab ID: 14081236-01
Matrix: SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|--------------------------------------|--------|------|-----------------|---------------------------------|-----------------|--------------------|
| Dibenzo(a,h)anthracene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Fluoranthene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Fluorene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Indeno(1,2,3-cd)pyrene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Naphthalene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Pyrene | ND | | 16 | µg/Kg-dry | 1 | 8/28/2014 11:24 AM |
| Surr: 2-Fluorobiphenyl | 63.5 | | 12-100 | %REC | 1 | 8/28/2014 11:24 AM |
| Surr: 4-Terphenyl-d14 | 119 | | 25-137 | %REC | 1 | 8/28/2014 11:24 AM |
| Surr: Nitrobenzene-d5 | 43.4 | | 37-107 | %REC | 1 | 8/28/2014 11:24 AM |
| VOLATILE ORGANIC COMPOUNDS | | | SW8260B | Prep: SW5035 / 8/26/14 | | Analyst: BG |
| Benzene | 130 | | 35 | µg/Kg-dry | 1 | 8/26/2014 02:35 PM |
| Ethylbenzene | 160 | | 35 | µg/Kg-dry | 1 | 8/26/2014 02:35 PM |
| m,p-Xylene | 2,300 | | 71 | µg/Kg-dry | 1 | 8/26/2014 02:35 PM |
| o-Xylene | 330 | | 35 | µg/Kg-dry | 1 | 8/26/2014 02:35 PM |
| Toluene | 480 | | 35 | µg/Kg-dry | 1 | 8/26/2014 02:35 PM |
| Xylenes, Total | 2,700 | | 110 | µg/Kg-dry | 1 | 8/26/2014 02:35 PM |
| Surr: 1,2-Dichloroethane-d4 | 97.9 | | 70-130 | %REC | 1 | 8/26/2014 02:35 PM |
| Surr: 4-Bromofluorobenzene | 103 | | 70-130 | %REC | 1 | 8/26/2014 02:35 PM |
| Surr: Dibromofluoromethane | 93.0 | | 70-130 | %REC | 1 | 8/26/2014 02:35 PM |
| Surr: Toluene-d8 | 106 | | 70-130 | %REC | 1 | 8/26/2014 02:35 PM |
| ELECTRICAL CONDUCTIVITY (SAR) | | | USDA H60 METHOD | Prep: USDA Method 20B / 8/27/14 | | Analyst: MELB |
| Electrical Conductivity @ Saturation | 7.8 | | 0.050 | mmhos/cm @25 | 10 | 8/27/2014 12:30 PM |
| CHROMIUM, TRIVALENT | | | CALCULATION | | | Analyst: JJG |
| Chromium, Trivalent | 10 | | 0.59 | mg/Kg-dry | 1 | 8/27/2014 08:06 AM |
| CHROMIUM, HEXAVALENT | | | SW7196A | Prep: SW3060A / 8/24/14 | | Analyst: JI |
| Chromium, Hexavalent | ND | | 0.59 | mg/Kg-dry | 1 | 8/24/2014 10:00 PM |
| MOISTURE | | | A2540 G | | | Analyst: KF |
| Moisture | 15 | | 0.050 | % of sample | 1 | 8/26/2014 03:51 PM |
| PH | | | SW9045D | Prep: EXTRACT / 8/25/14 | | Analyst: JB |
| pH | 8.7 | | | s.u. | 1 | 8/25/2014 05:00 PM |

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **62037** Instrument ID **GC8** Method: **SW8015M**

| | | | | | | | | | | |
|-----------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: DBLKS1-62037-62037 | | | | Units: mg/Kg | | Analysis Date: 8/27/2014 01:16 AM | | |
| Client ID: | | Run ID: GC8_140826A | | | | SeqNo: 2905861 | | Prep Date: 8/26/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (C10-C28) | ND | 5.0 | | | | | | | | |
| Surr: 4-Terphenyl-d14 | 1.738 | 0 | 2 | 0 | 86.9 | 39-133 | | 0 | | |

| | | | | | | | | | | |
|-----------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| LCS | | Sample ID: DLCSS1-62037-62037 | | | | Units: mg/Kg | | Analysis Date: 8/27/2014 01:41 AM | | |
| Client ID: | | Run ID: GC8_140826A | | | | SeqNo: 2905866 | | Prep Date: 8/26/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (C10-C28) | 145.6 | 5.0 | 200 | 0 | 72.8 | 61-109 | | 0 | | |
| Surr: 4-Terphenyl-d14 | 1.303 | 0 | 2 | 0 | 65.1 | 39-133 | | 0 | | |

| | | | | | | | | | | |
|-----------------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MS | | Sample ID: 14081237-01A MS | | | | Units: mg/Kg | | Analysis Date: 8/27/2014 02:06 AM | | |
| Client ID: | | Run ID: GC8_140826A | | | | SeqNo: 2905869 | | Prep Date: 8/26/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (C10-C28) | 316.1 | 7.9 | 314.9 | 27.71 | 91.6 | 48-110 | | 0 | | |
| Surr: 4-Terphenyl-d14 | 2.569 | 0 | 3.149 | 0 | 81.6 | 39-133 | | 0 | | |

| | | | | | | | | | | |
|-----------------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MSD | | Sample ID: 14081237-01A MSD | | | | Units: mg/Kg | | Analysis Date: 8/27/2014 02:32 AM | | |
| Client ID: | | Run ID: GC8_140826A | | | | SeqNo: 2905871 | | Prep Date: 8/26/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (C10-C28) | 299.3 | 8.0 | 319.6 | 27.71 | 85 | 48-110 | 316.1 | 5.46 | 30 | |
| Surr: 4-Terphenyl-d14 | 2.496 | 0 | 3.196 | 0 | 78.1 | 39-133 | 2.569 | 2.88 | 30 | |

The following samples were analyzed in this batch: | 14081236-01B |

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **62057** Instrument ID **GC9** Method: **SW8015**

| | | | | | | | | | | |
|-------------------------|-------------|------------------------------------|-------------|---------------|------------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: MBLK-62057-62057 | | | | Units: µg/Kg | | Analysis Date: 8/26/2014 02:56 PM | | |
| Client ID: | | Run ID: GC9_140826A | | | | SeqNo: 2905140 | | Prep Date: 8/26/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| GRO (C6-C10) | ND | 2,500 | | | | | | | | |
| <i>Surr: Toluene-d8</i> | <i>5481</i> | <i>0</i> | <i>5000</i> | <i>0</i> | <i>110</i> | <i>50-150</i> | <i>0</i> | | | |

| | | | | | | | | | | |
|-------------------------|-------------|-----------------------------------|-------------|---------------|-------------|-----------------------|---------------|--|-----------|--------------|
| LCS | | Sample ID: LCS-62057-62057 | | | | Units: µg/Kg | | Analysis Date: 8/26/2014 02:31 PM | | |
| Client ID: | | Run ID: GC9_140826A | | | | SeqNo: 2905139 | | Prep Date: 8/26/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| GRO (C6-C10) | 510900 | 2,500 | 500000 | 0 | 102 | 70-130 | 0 | | | |
| <i>Surr: Toluene-d8</i> | <i>4553</i> | <i>0</i> | <i>5000</i> | <i>0</i> | <i>91.1</i> | <i>50-150</i> | <i>0</i> | | | |

| | | | | | | | | | | |
|-------------------------|-------------|-----------------------------------|-------------|---------------|-------------|-----------------------|---------------|--|-----------|--------------|
| MS | | Sample ID: 14081238-01A MS | | | | Units: µg/Kg | | Analysis Date: 8/26/2014 06:58 PM | | |
| Client ID: | | Run ID: GC9_140826A | | | | SeqNo: 2905533 | | Prep Date: 8/26/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| GRO (C6-C10) | 625400 | 2,500 | 500000 | 144500 | 96.2 | 70-130 | 0 | | | |
| <i>Surr: Toluene-d8</i> | <i>4842</i> | <i>0</i> | <i>5000</i> | <i>0</i> | <i>96.8</i> | <i>50-150</i> | <i>0</i> | | | |

| | | | | | | | | | | |
|-------------------------|-------------|------------------------------------|-------------|---------------|-------------|-----------------------|---------------|--|-----------|--------------|
| MSD | | Sample ID: 14081238-01A MSD | | | | Units: µg/Kg | | Analysis Date: 8/26/2014 07:23 PM | | |
| Client ID: | | Run ID: GC9_140826A | | | | SeqNo: 2905535 | | Prep Date: 8/26/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| GRO (C6-C10) | 636900 | 2,500 | 500000 | 144500 | 98.5 | 70-130 | 625400 | 1.83 | 30 | |
| <i>Surr: Toluene-d8</i> | <i>4904</i> | <i>0</i> | <i>5000</i> | <i>0</i> | <i>98.1</i> | <i>50-150</i> | <i>4842</i> | <i>1.25</i> | <i>30</i> | |

The following samples were analyzed in this batch:

14081236-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **61979** Instrument ID **HG1** Method: **SW7471**

| | | | | | | | | | | |
|-------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: MBLK-61979-61979 | | | | Units: mg/Kg | | Analysis Date: 8/25/2014 03:10 PM | | |
| Client ID: | | Run ID: HG1_140825A | | | | SeqNo: 2902477 | | Prep Date: 8/25/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Mercury ND 0.020

| | | | | | | | | | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| LCS | | Sample ID: LCS-61979-61979 | | | | Units: mg/Kg | | Analysis Date: 8/25/2014 03:12 PM | | |
| Client ID: | | Run ID: HG1_140825A | | | | SeqNo: 2902478 | | Prep Date: 8/25/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Mercury 0.19 0.020 0.1665 0 114 80-120 0

| | | | | | | | | | | |
|------------|--------|----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MS | | Sample ID: 14081065-04BMS | | | | Units: mg/Kg | | Analysis Date: 8/25/2014 03:37 PM | | |
| Client ID: | | Run ID: HG1_140825A | | | | SeqNo: 2902511 | | Prep Date: 8/25/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Mercury 0.1347 0.012 0.1028 0.0167 115 75-125 0

| | | | | | | | | | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MSD | | Sample ID: 14081065-04BMSD | | | | Units: mg/Kg | | Analysis Date: 8/25/2014 03:39 PM | | |
| Client ID: | | Run ID: HG1_140825A | | | | SeqNo: 2902512 | | Prep Date: 8/25/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Mercury 0.1306 0.012 0.1034 0.0167 110 75-125 0.1347 3.11 35

The following samples were analyzed in this batch:

14081236-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **62022** Instrument ID **ICPMS1** Method: **SW6020A**

| MBLK | | | | Sample ID: MBLK-62022-62022 | | | | Units:mg/Kg | | Analysis Date: 8/25/2014 11:58 PM | |
|------------|----------|------|------------------------|-----------------------------|------|---------------|---------------|----------------------|-----------|-----------------------------------|--|
| Client ID: | | | Run ID: ICPMS1_140825A | | | SeqNo:2903708 | | Prep Date: 8/25/2014 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | |
| Arsenic | ND | 0.25 | | | | | | | | | |
| Barium | ND | 0.25 | | | | | | | | | |
| Cadmium | 0.001274 | 0.10 | | | | | | | | J | |
| Chromium | ND | 0.25 | | | | | | | | | |
| Copper | ND | 0.25 | | | | | | | | | |
| Lead | 0.00304 | 0.25 | | | | | | | | J | |
| Nickel | ND | 0.25 | | | | | | | | | |
| Selenium | ND | 0.25 | | | | | | | | | |
| Silver | ND | 0.25 | | | | | | | | | |
| Zinc | 0.09955 | 0.50 | | | | | | | | J | |

| LCS | | | | Sample ID: LCS-62022-62022 | | | Units:mg/Kg | | Analysis Date: 8/26/2014 12:04 AM | | |
|------------|--------|------|------------------------|----------------------------|------|---------------|---------------|----------------------|-----------------------------------|-------|--|
| Client ID: | | | Run ID: ICPMS1_140825A | | | SeqNo:2903710 | | Prep Date: 8/25/2014 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | |
| Arsenic | 4.462 | 0.25 | 5 | 0 | 89.2 | 80-120 | 0 | | | | |
| Barium | 4.7 | 0.25 | 5 | 0 | 94 | 80-120 | 0 | | | | |
| Cadmium | 4.64 | 0.10 | 5 | 0 | 92.8 | 80-120 | 0 | | | | |
| Chromium | 4.607 | 0.25 | 5 | 0 | 92.1 | 80-120 | 0 | | | | |
| Copper | 4.466 | 0.25 | 5 | 0 | 89.3 | 80-120 | 0 | | | | |
| Lead | 4.642 | 0.25 | 5 | 0 | 92.8 | 80-120 | 0 | | | | |
| Nickel | 4.541 | 0.25 | 5 | 0 | 90.8 | 80-120 | 0 | | | | |
| Selenium | 4.45 | 0.25 | 5 | 0 | 89 | 80-120 | 0 | | | | |
| Silver | 4.683 | 0.25 | 5 | 0 | 93.7 | 80-120 | 0 | | | | |
| Zinc | 5.65 | 0.50 | 5 | 0 | 113 | 80-120 | 0 | | | | |

| MS | | | | | Sample ID: 14081234-01AMS | | | Units:mg/Kg | | Analysis Date: 8/26/2014 02:44 AM | | |
|------------|--------|------|------------------------|---------------|---------------------------|---------------|---------------|----------------------|-----------|-----------------------------------|--|--|
| Client ID: | | | Run ID: ICPMS1_140825A | | | SeqNo:2903752 | | Prep Date: 8/25/2014 | | DF: 5 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | | |
| Arsenic | 18.3 | 1.8 | 7.342 | 10.62 | 105 | 75-125 | 0 | | | | | |
| Barium | 214.8 | 1.8 | 7.342 | 219.2 | -59.5 | 75-125 | 0 | | | SO | | |
| Cadmium | 7.919 | 0.73 | 7.342 | 0.6688 | 98.7 | 75-125 | 0 | | | | | |
| Chromium | 18.01 | 1.8 | 7.342 | 7.995 | 136 | 75-125 | 0 | | | S | | |
| Copper | 21.11 | 1.8 | 7.342 | 14.15 | 94.9 | 75-125 | 0 | | | | | |
| Lead | 21 | 1.8 | 7.342 | 12.88 | 111 | 75-125 | 0 | | | | | |
| Nickel | 22.07 | 1.8 | 7.342 | 14.52 | 103 | 75-125 | 0 | | | | | |
| Selenium | 8.341 | 1.8 | 7.342 | 2.195 | 83.7 | 75-125 | 0 | | | | | |
| Silver | 6.832 | 1.8 | 7.342 | 0.08948 | 91.8 | 75-125 | 0 | | | | | |
| Zinc | 68.65 | 3.7 | 7.342 | 53.91 | 201 | 75-125 | 0 | | | SO | | |

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **62022** Instrument ID **ICPMS1** Method: **SW6020A**

| MSD | | Sample ID: 14081234-01AMSD | | | | Units: mg/Kg | | Analysis Date: 8/26/2014 02:50 AM | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| Client ID: | | Run ID: ICPMS1_140825A | | | | SeqNo: 2903753 | | Prep Date: 8/25/2014 | | DF: 5 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Arsenic | 20.48 | 1.8 | 7.267 | 10.62 | 136 | 75-125 | 18.3 | 11.2 | 25 | S |
| Barium | 170.2 | 1.8 | 7.267 | 219.2 | -675 | 75-125 | 214.8 | 23.2 | 25 | SO |
| Cadmium | 7.307 | 0.73 | 7.267 | 0.6688 | 91.3 | 75-125 | 7.919 | 8.03 | 25 | |
| Chromium | 16.69 | 1.8 | 7.267 | 7.995 | 120 | 75-125 | 18.01 | 7.63 | 25 | |
| Copper | 21.53 | 1.8 | 7.267 | 14.15 | 102 | 75-125 | 21.11 | 1.94 | 25 | |
| Lead | 20.61 | 1.8 | 7.267 | 12.88 | 106 | 75-125 | 21 | 1.87 | 25 | |
| Nickel | 20.55 | 1.8 | 7.267 | 14.52 | 82.9 | 75-125 | 22.07 | 7.12 | 25 | |
| Selenium | 8.114 | 1.8 | 7.267 | 2.195 | 81.5 | 75-125 | 8.341 | 2.75 | 25 | |
| Silver | 6.421 | 1.8 | 7.267 | 0.08948 | 87.1 | 75-125 | 6.832 | 6.2 | 25 | |
| Zinc | 63.59 | 3.6 | 7.267 | 53.91 | 133 | 75-125 | 68.65 | 7.65 | 25 | SO |

The following samples were analyzed in this batch: 14081236-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **62046** Instrument ID **SAR** Method: **USDA H60 Method**

| | | | | | | | | | | | | | |
|-------------------------|--------|-------|---------|----------------------------|------|---------------|---------------|----------------|-----------|----------------------|--------------------------|-------|--|
| DUP | | | | Sample ID: 14081254-01BDUP | | | | Units: none | | | Analysis Date: 8/27/2014 | | |
| Client ID: | | | | Run ID: SAR_140827A | | | | SeqNo: 2908981 | | Prep Date: 8/27/2014 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | | | |
| Sodium Adsorption Ratio | 9.259 | 0.010 | 0 | 0 | 0 | | 8.569 | 7.74 | 50 | | | | |

The following samples were analyzed in this batch:

14081236-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **62036** Instrument ID **SVMS8** Method: **SW846 8270D**

| MBLK | | Sample ID: SBLKS1-62036-62036 | | | | Units: µg/Kg | | Analysis Date: 8/26/2014 07:32 PM | | |
|-------------------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| Client ID: | | Run ID: SVMS8_140826A | | | | SeqNo: 2906486 | | Prep Date: 8/26/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Acenaphthene | ND | 6.7 | | | | | | | | |
| Acenaphthylene | ND | 6.7 | | | | | | | | |
| Anthracene | ND | 6.7 | | | | | | | | |
| Benzo(a)anthracene | ND | 6.7 | | | | | | | | |
| Benzo(a)pyrene | ND | 6.7 | | | | | | | | |
| Benzo(b)fluoranthene | ND | 6.7 | | | | | | | | |
| Benzo(g,h,i)perylene | ND | 6.7 | | | | | | | | |
| Benzo(k)fluoranthene | ND | 6.7 | | | | | | | | |
| Chrysene | ND | 6.7 | | | | | | | | |
| Dibenzo(a,h)anthracene | ND | 6.7 | | | | | | | | |
| Fluoranthene | ND | 6.7 | | | | | | | | |
| Fluorene | ND | 6.7 | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | ND | 6.7 | | | | | | | | |
| Naphthalene | ND | 6.7 | | | | | | | | |
| Pyrene | ND | 6.7 | | | | | | | | |
| <i>Surr: 2-Fluorobiphenyl</i> | 1063 | 0 | 1667 | 0 | 63.8 | 12-100 | 0 | | | |
| <i>Surr: 4-Terphenyl-d14</i> | 2116 | 0 | 1667 | 0 | 127 | 25-137 | 0 | | | |
| <i>Surr: Nitrobenzene-d5</i> | 1057 | 0 | 1667 | 0 | 63.4 | 37-107 | 0 | | | |

| LCS | | Sample ID: SLCSS1-62036-62036 | | | | Units: µg/Kg | | Analysis Date: 8/26/2014 07:52 PM | | |
|-------------------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| Client ID: | | Run ID: SVMS8_140826A | | | | SeqNo: 2906487 | | Prep Date: 8/26/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Acenaphthene | 493.3 | 6.7 | 666.7 | 0 | 74 | 45-110 | 0 | | | |
| Acenaphthylene | 515.7 | 6.7 | 666.7 | 0 | 77.3 | 45-105 | 0 | | | |
| Anthracene | 625.7 | 6.7 | 666.7 | 0 | 93.8 | 55-105 | 0 | | | |
| Benzo(a)anthracene | 594 | 6.7 | 666.7 | 0 | 89.1 | 50-110 | 0 | | | |
| Benzo(a)pyrene | 661.3 | 6.7 | 666.7 | 0 | 99.2 | 50-110 | 0 | | | |
| Benzo(b)fluoranthene | 695.3 | 6.7 | 666.7 | 0 | 104 | 45-115 | 0 | | | |
| Benzo(g,h,i)perylene | 574.7 | 6.7 | 666.7 | 0 | 86.2 | 40-125 | 0 | | | |
| Benzo(k)fluoranthene | 709.7 | 6.7 | 666.7 | 0 | 106 | 45-115 | 0 | | | |
| Chrysene | 622.3 | 6.7 | 666.7 | 0 | 93.3 | 55-110 | 0 | | | |
| Dibenzo(a,h)anthracene | 611.7 | 6.7 | 666.7 | 0 | 91.7 | 40-125 | 0 | | | |
| Fluoranthene | 595.7 | 6.7 | 666.7 | 0 | 89.3 | 55-115 | 0 | | | |
| Fluorene | 574.7 | 6.7 | 666.7 | 0 | 86.2 | 50-110 | 0 | | | |
| Indeno(1,2,3-cd)pyrene | 601 | 6.7 | 666.7 | 0 | 90.1 | 40-120 | 0 | | | |
| Naphthalene | 450 | 6.7 | 666.7 | 0 | 67.5 | 40-105 | 0 | | | |
| Pyrene | 771 | 6.7 | 666.7 | 0 | 116 | 45-125 | 0 | | | |
| <i>Surr: 2-Fluorobiphenyl</i> | 1192 | 0 | 1667 | 0 | 71.5 | 12-100 | 0 | | | |
| <i>Surr: 4-Terphenyl-d14</i> | 1865 | 0 | 1667 | 0 | 112 | 25-137 | 0 | | | |
| <i>Surr: Nitrobenzene-d5</i> | 1174 | 0 | 1667 | 0 | 70.4 | 37-107 | 0 | | | |

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **62036** Instrument ID **SVMS8** Method: **SW846 8270D**

| MS | | | | Sample ID: 14081124-03A MS | | | Units: µg/Kg | | Analysis Date: 8/29/2014 06:24 AM | |
|------------------------|--------|-----------------------|---------|----------------------------|----------------|---------------|----------------------|------|-----------------------------------|------|
| Client ID: | | Run ID: SVMS4_140828A | | | SeqNo: 2910197 | | Prep Date: 8/26/2014 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Acenaphthene | 1025 | 13 | 1290 | 0 | 79.4 | 45-110 | 0 | | | |
| Acenaphthylene | 1043 | 13 | 1290 | 0 | 80.8 | 45-105 | 0 | | | |
| Anthracene | 1241 | 13 | 1290 | 0 | 96.2 | 55-105 | 0 | | | |
| Benzo(a)anthracene | 1229 | 13 | 1290 | 0 | 95.2 | 50-110 | 0 | | | |
| Benzo(a)pyrene | 1316 | 13 | 1290 | 0 | 102 | 50-110 | 0 | | | |
| Benzo(b)fluoranthene | 1250 | 13 | 1290 | 0 | 96.9 | 45-115 | 0 | | | |
| Benzo(g,h,i)perylene | 1266 | 13 | 1290 | 0 | 98.1 | 40-125 | 0 | | | |
| Benzo(k)fluoranthene | 1227 | 13 | 1290 | 0 | 95.1 | 45-115 | 0 | | | |
| Chrysene | 1188 | 13 | 1290 | 0 | 92.1 | 55-110 | 0 | | | |
| Dibenzo(a,h)anthracene | 1279 | 13 | 1290 | 0 | 99.1 | 40-125 | 0 | | | |
| Fluoranthene | 1163 | 13 | 1290 | 0 | 90.1 | 55-115 | 0 | | | |
| Fluorene | 1200 | 13 | 1290 | 0 | 93 | 50-110 | 0 | | | |
| Indeno(1,2,3-cd)pyrene | 1398 | 13 | 1290 | 0 | 108 | 40-120 | 0 | | | |
| Naphthalene | 904.5 | 13 | 1290 | 0 | 70.1 | 40-105 | 0 | | | |
| Pyrene | 1272 | 13 | 1290 | 0 | 98.5 | 45-125 | 0 | | | |
| Surr: 2-Fluorobiphenyl | 2447 | 0 | 3226 | 0 | 75.9 | 12-100 | 0 | | | |
| Surr: 4-Terphenyl-d14 | 3082 | 0 | 3226 | 0 | 95.5 | 25-137 | 0 | | | |
| Surr: Nitrobenzene-d5 | 1973 | 0 | 3226 | 0 | 61.2 | 37-107 | 0 | | | |

| MSD | | | | Sample ID: 14081124-03A MSD | | | Units: µg/Kg | | Analysis Date: 8/29/2014 06:48 AM | |
|------------------------|--------|-----------------------|---------|-----------------------------|----------------|---------------|----------------------|-------|-----------------------------------|------|
| Client ID: | | Run ID: SVMS4_140828A | | | SeqNo: 2910198 | | Prep Date: 8/26/2014 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Acenaphthene | 1120 | 13 | 1304 | 0 | 85.9 | 45-110 | 1025 | 8.86 | 30 | |
| Acenaphthylene | 1124 | 13 | 1304 | 0 | 86.1 | 45-105 | 1043 | 7.47 | 30 | |
| Anthracene | 1294 | 13 | 1304 | 0 | 99.2 | 55-105 | 1241 | 4.13 | 30 | |
| Benzo(a)anthracene | 1248 | 13 | 1304 | 0 | 95.7 | 50-110 | 1229 | 1.54 | 30 | |
| Benzo(a)pyrene | 1330 | 13 | 1304 | 0 | 102 | 50-110 | 1316 | 1.06 | 30 | |
| Benzo(b)fluoranthene | 1302 | 13 | 1304 | 0 | 99.8 | 45-115 | 1250 | 4.01 | 30 | |
| Benzo(g,h,i)perylene | 1292 | 13 | 1304 | 0 | 99 | 40-125 | 1266 | 2.03 | 30 | |
| Benzo(k)fluoranthene | 1257 | 13 | 1304 | 0 | 96.3 | 45-115 | 1227 | 2.37 | 30 | |
| Chrysene | 1188 | 13 | 1304 | 0 | 91.1 | 55-110 | 1188 | 0.028 | 30 | |
| Dibenzo(a,h)anthracene | 1303 | 13 | 1304 | 0 | 99.9 | 40-125 | 1279 | 1.87 | 30 | |
| Fluoranthene | 1173 | 13 | 1304 | 0 | 89.9 | 55-115 | 1163 | 0.897 | 30 | |
| Fluorene | 1275 | 13 | 1304 | 0 | 97.8 | 50-110 | 1200 | 6.09 | 30 | |
| Indeno(1,2,3-cd)pyrene | 1435 | 13 | 1304 | 0 | 110 | 40-120 | 1398 | 2.62 | 30 | |
| Naphthalene | 1043 | 13 | 1304 | 0 | 80 | 40-105 | 904.5 | 14.2 | 30 | |
| Pyrene | 1300 | 13 | 1304 | 0 | 99.6 | 45-125 | 1272 | 2.17 | 30 | |
| Surr: 2-Fluorobiphenyl | 2709 | 0 | 3260 | 0 | 83.1 | 12-100 | 2447 | 10.2 | 40 | |
| Surr: 4-Terphenyl-d14 | 3164 | 0 | 3260 | 0 | 97 | 25-137 | 3082 | 2.62 | 40 | |
| Surr: Nitrobenzene-d5 | 2155 | 0 | 3260 | 0 | 66.1 | 37-107 | 1973 | 8.83 | 40 | |

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **62036** Instrument ID **SVMS8** Method: **SW846 8270D**

The following samples were analyzed in this batch:

| |
|--------------|
| 14081236-01B |
|--------------|

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **62055** Instrument ID **VMS8** Method: **SW8260B**

| MBLK | | Sample ID: MBLK-62055-62055 | | | | Units: µg/Kg | | Analysis Date: 8/26/2014 02:33 PM | | |
|------------------------------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| Client ID: | | Run ID: VMS8_140826A | | | | SeqNo: 2905714 | | Prep Date: 8/26/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Benzene | ND | 30 | | | | | | | | |
| Ethylbenzene | ND | 30 | | | | | | | | |
| m,p-Xylene | ND | 60 | | | | | | | | |
| o-Xylene | ND | 30 | | | | | | | | |
| Toluene | ND | 30 | | | | | | | | |
| Xylenes, Total | ND | 90 | | | | | | | | |
| <i>Surr: 1,2-Dichloroethane-d4</i> | 994 | 0 | 1000 | 0 | 99.4 | 70-130 | 0 | | | |
| <i>Surr: 4-Bromofluorobenzene</i> | 992.5 | 0 | 1000 | 0 | 99.2 | 70-130 | 0 | | | |
| <i>Surr: Dibromofluoromethane</i> | 979 | 0 | 1000 | 0 | 97.9 | 70-130 | 0 | | | |
| <i>Surr: Toluene-d8</i> | 964 | 0 | 1000 | 0 | 96.4 | 70-130 | 0 | | | |

| LCS | | Sample ID: LCS-62055-62055 | | | | Units: µg/Kg | | Analysis Date: 8/26/2014 11:39 AM | | |
|------------------------------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| Client ID: | | Run ID: VMS8_140826A | | | | SeqNo: 2905711 | | Prep Date: 8/26/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Benzene | 1024 | 30 | 1000 | 0 | 102 | 75-125 | 0 | | | |
| Ethylbenzene | 1024 | 30 | 1000 | 0 | 102 | 75-125 | 0 | | | |
| m,p-Xylene | 2023 | 60 | 2000 | 0 | 101 | 80-125 | 0 | | | |
| o-Xylene | 1004 | 30 | 1000 | 0 | 100 | 75-125 | 0 | | | |
| Toluene | 1004 | 30 | 1000 | 0 | 100 | 70-125 | 0 | | | |
| Xylenes, Total | 3028 | 90 | 3000 | 0 | 101 | 75-125 | 0 | | | |
| <i>Surr: 1,2-Dichloroethane-d4</i> | 1017 | 0 | 1000 | 0 | 102 | 70-130 | 0 | | | |
| <i>Surr: 4-Bromofluorobenzene</i> | 998.5 | 0 | 1000 | 0 | 99.8 | 70-130 | 0 | | | |
| <i>Surr: Dibromofluoromethane</i> | 1020 | 0 | 1000 | 0 | 102 | 70-130 | 0 | | | |
| <i>Surr: Toluene-d8</i> | 989.5 | 0 | 1000 | 0 | 99 | 70-130 | 0 | | | |

The following samples were analyzed in this batch:

14081236-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **61986** Instrument ID **WETCHEM** Method: **SW7196A**

| | | | | | | | | | | |
|-------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: MBLK-61986-61986 | | | | Units: mg/Kg | | Analysis Date: 8/24/2014 10:00 PM | | |
| Client ID: | | Run ID: WETCHEM_140824K | | | | SeqNo: 2901170 | | Prep Date: 8/24/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Chromium, Hexavalent ND 0.50

| | | | | | | | | | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| LCS | | Sample ID: LCS-61986-61986 | | | | Units: mg/Kg | | Analysis Date: 8/24/2014 10:00 PM | | |
| Client ID: | | Run ID: WETCHEM_140824K | | | | SeqNo: 2901171 | | Prep Date: 8/24/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Chromium, Hexavalent 2.012 0.50 1.992 0 101 80-120 0

| | | | | | | | | | | |
|------------|--------|----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MS | | Sample ID: 14081047-03AMS | | | | Units: mg/Kg | | Analysis Date: 8/24/2014 10:00 PM | | |
| Client ID: | | Run ID: WETCHEM_140824K | | | | SeqNo: 2901173 | | Prep Date: 8/24/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Chromium, Hexavalent 2.072 0.50 2 0.349 86.1 75-125 0

| | | | | | | | | | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|----------------|
| MS | | Sample ID: 14081047-03AMSI | | | | Units: mg/Kg | | Analysis Date: 8/24/2014 10:00 PM | | |
| Client ID: | | Run ID: WETCHEM_140824K | | | | SeqNo: 2901175 | | Prep Date: 8/24/2014 | | DF: 100 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Chromium, Hexavalent 984 50 1139 0.349 86.3 75-125 0

| | | | | | | | | | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MSD | | Sample ID: 14081047-03AMSD | | | | Units: mg/Kg | | Analysis Date: 8/24/2014 10:00 PM | | |
| Client ID: | | Run ID: WETCHEM_140824K | | | | SeqNo: 2901174 | | Prep Date: 8/24/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Chromium, Hexavalent 2.012 0.50 1.992 0.349 83.5 75-125 2.072 2.94 20

The following samples were analyzed in this batch:

14081236-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **62043** Instrument ID **WETCHEM** Method: **SW9045D**

| | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|----------------------------|--|-----|---------|---------------|---------------|--|---------------|-----------------------------------|------|-----------|-------|--|
| LCS | | | | | Sample ID: LCS-62043-62043 | | | | | Units:s.u. | | | Analysis Date: 8/25/2014 05:00 PM | | | | |
| Client ID: | | | | | Run ID: WETCHEM_140825L | | | | | SeqNo:2902780 | | | Prep Date: 8/25/2014 | | | DF: 1 | |
| Analyte | | | | | Result | | PQL | SPK Val | SPK Ref Value | %REC | | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | |
| pH | | | | | 4.02 | | 0 | 4 | 0 | 100 | | 90-110 | 0 | | | | |

| | | | | | | | | | | | | | |
|------------|--|--------|-----|-----------------------------|---------------|------|---------------|----------------|-------|----------------------|-----------------------------------|-------|--|
| DUP | | | | Sample ID: 14081248-01A DUP | | | | Units: s.u. | | | Analysis Date: 8/25/2014 05:00 PM | | |
| Client ID: | | | | Run ID: WETCHEM_140825L | | | | SeqNo: 2902790 | | Prep Date: 8/25/2014 | | DF: 1 | |
| Analyte | | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | | |
| pH | | 7.05 | 0 | 0 | 0 | 0 | 0-0 | 7.08 | 0.425 | 20 | | | |

The following samples were analyzed in this batch:

14081236-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **62046** Instrument ID **WETCHEM** Method: **USDA H60 Method**

| | | | | | | | | | | |
|--------------------------------------|--------|-----------------------------------|---------|---------------|------|------------------------------|---------------|--|-----------|---------------|
| DUP | | Sample ID: 14081254-01BDUP | | | | Units: mmhos/cm @25°C | | Analysis Date: 8/27/2014 12:30 PM | | |
| Client ID: | | Run ID: WETCHEM_140827G | | | | SeqNo: 2906463 | | Prep Date: 8/27/2014 | | DF: 10 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Electrical Conductivity @ Saturation | 12.84 | 0.050 | 0 | 0 | 0 | | 12.73 | 0.86 | 50 | |

The following samples were analyzed in this batch:

14081236-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081236
Project: WPX DOE 1-W 27 Cuttings 8.22.14

QC BATCH REPORT

Batch ID: **R147044** Instrument ID **MOIST** Method: **A2540 G**

| | | | | | | | | | | |
|-------------|--------|---------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: WBLKS-R147044 | | | | Units: % of sample | | Analysis Date: 8/26/2014 03:51 PM | | |
| Client ID: | | Run ID: MOIST_140826E | | | | SeqNo: 2906406 | | 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-R147044 | | | | Units: % of sample | | Analysis Date: 8/26/2014 03:51 PM | | |
| Client ID: | | Run ID: MOIST_140826E | | | | SeqNo: 2906405 | | 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: 14081124-01A DUP | | | | Units: % of sample | | Analysis Date: 8/26/2014 03:51 PM | | |
| Client ID: | | Run ID: MOIST_140826E | | | | SeqNo: 2906384 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Moisture 7.63 0.050 0 0 0 0-0 7.62 0.131 20

| | | | | | | | | | | |
|------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| DUP | | Sample ID: 14081157-03A DUP | | | | Units: % of sample | | Analysis Date: 8/26/2014 03:51 PM | | |
| Client ID: | | Run ID: MOIST_140826E | | | | SeqNo: 2906395 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Moisture 9.99 0.050 0 0 0 0-0 9.28 7.37 20

The following samples were analyzed in this batch:

14081236-01B

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



Form 202-8

14081234

1 of 1

By / s/ or Return to Client

| | SIGNATURE | PRINTED NAME | DATE | TIME |
|-----------------|-----------------------|-----------------------|---------|------|
| RELINQUISHED BY | <i>Keith W. Frenn</i> | <i>Keith W. Frenn</i> | 8/22/14 | 3:00 |
| RECEIVED BY | <i>MM</i> | <i>MM</i> | 8-22-14 | 3:00 |
| RELINQUISHED BY | <i>MM</i> | <i>MM</i> | 8-22-14 | 5:00 |
| RECEIVED BY | <i>Keith W. Frenn</i> | KEITH W. FRENN | 8/23/14 | 1000 |
| RELINQUISHED BY | | | | |
| RECEIVED BY | | | | |

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **23-Aug-14 10:00**

Work Order: **14081236**

Received by: **KRW**

| | | | |
|---|-----------|---------------------------------|-----------|
| Checklist completed by <u>Keith Wurenga</u> | 23-Aug-14 | Reviewed by: <u>Ann Preston</u> | 25-Aug-14 |
| eSignature | Date | eSignature | Date |

Matrices: **Soil**

Carrier name: **FedEx**

| | | | |
|---|---|-----------------------------|--|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on shipping container/cooler? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample(s) received on ice? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Temperature(s)/Thermometer(s): | <u>4.8 C</u> | | |
| Cooler(s)/Kit(s): | | | |
| Date/Time sample(s) sent to storage: | <u>8/23/2014 12:02:55 PM</u> | | |
| Water - VOA vials have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| pH adjusted? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| pH adjusted by: | | | |

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



15-Sep-2014

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

Re: **WPX DOE 1-W-27 Cuttings 9.5.14**

Work Order: **1409280**

Dear Mark,

ALS Environmental received 1 sample on 06-Sep-2014 11:40 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 11.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX DOE 1-W-27 Cuttings 9.5.14
Work Order: 1409280

Work Order Sample Summary

| <u>Lab Samp ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Tag Number</u> | <u>Collection Date</u> | <u>Date Received</u> | <u>Hold</u> |
|--------------------|-------------------------|---------------|-------------------|------------------------|----------------------|--------------------------|
| 1409280-01 | Batch 1 | Soil | | 9/5/2014 09:45 | 9/6/2014 11:40 | <input type="checkbox"/> |

ALS Group USA, Corp

Date: 15-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX DOE 1-W-27 Cuttings 9.5.14
Work Order: 1409280

Case Narrative

Batch 62656 MS/MSD data for DRO is not related to this project's samples. No data requires qualification.

Client: HRL Compliance Solutions, Inc
Project: WPX DOE 1-W-27 Cuttings 9.5.14
WorkOrder: 1409280

QUALIFIERS, ACRONYMS, UNITS

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

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

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

ALS Group USA, Corp**Date:** 15-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX DOE 1-W-27 Cuttings 9.5.14
Sample ID: Batch 1
Collection Date: 9/5/2014 09:45 AM

Work Order: 1409280
Lab ID: 1409280-01
Matrix: SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|--|-------------|------|----------------|--------------------|------------------------|---------------------|
| DIESEL RANGE ORGANICS BY GC-FID | | | | | | |
| DRO (C10-C28) | 110 | | SW8015M | | Prep: SW3541 / 9/11/14 | Analyst: IT |
| <i>Surr: 4-Terphenyl-d14</i> | <i>92.5</i> | | <i>39-133</i> | <i>mg/Kg-dry</i> | <i>1</i> | 9/13/2014 06:53 PM |
| | | | | <i>%REC</i> | <i>1</i> | 9/13/2014 06:53 PM |
| GASOLINE RANGE ORGANICS BY GC-FID | | | | | | |
| GRO (C6-C10) | ND | | SW8015 | | Prep: SW5035 / 9/9/14 | Analyst: IT |
| <i>Surr: Toluene-d8</i> | <i>79.1</i> | | <i>50-150</i> | <i>mg/Kg-dry</i> | <i>1</i> | 9/10/2014 09:57 PM |
| | | | | <i>%REC</i> | <i>1</i> | 9/10/2014 09:57 PM |
| MOISTURE | | | | | | |
| Moisture | 12 | | A2540 G | | | Analyst: RLM |
| | | | 0.050 | % of sample | 1 | 9/8/2014 07:55 PM |

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

ALS Group USA, Corp

Date: 15-Sep-14

Client: HRL Compliance Solutions, Inc

Work Order: 1409280

Project: WPX DOE 1-W-27 Cuttings 9.5.14

QC BATCH REPORT

Batch ID: **62656**

Instrument ID **GC8**

Method: **SW8015M**

| | | | | | | | | | | |
|------------------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: DBLKS1-62656-62656 | | | | Units: mg/Kg | | Analysis Date: 9/13/2014 08:39 PM | | |
| Client ID: | | Run ID: GC8_140913A | | | | SeqNo: 2934233 | | Prep Date: 9/11/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (C10-C28) | ND | 5.0 | | | | | | | | |
| <i>Surr: 4-Terphenyl-d14</i> | 1.769 | 0 | 2 | 0 | 88.4 | 39-133 | 0 | | | |

| | | | | | | | | | | |
|------------------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| LCS | | Sample ID: DLCSS1-62656-62656 | | | | Units: mg/Kg | | Analysis Date: 9/13/2014 09:05 PM | | |
| Client ID: | | Run ID: GC8_140913A | | | | SeqNo: 2934235 | | Prep Date: 9/11/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (C10-C28) | 164.7 | 5.0 | 200 | 0 | 82.4 | 61-109 | 0 | | | |
| <i>Surr: 4-Terphenyl-d14</i> | 1.514 | 0 | 2 | 0 | 75.7 | 39-133 | 0 | | | |

| | | | | | | | | | | |
|------------------------------|--------|----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MS | | Sample ID: 1409322-19C MS | | | | Units: mg/Kg | | Analysis Date: 9/13/2014 09:32 PM | | |
| Client ID: | | Run ID: GC8_140913A | | | | SeqNo: 2934239 | | Prep Date: 9/11/2014 | | DF: 5 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (C10-C28) | 3561 | 82 | 328.6 | 3324 | 72.3 | 48-110 | 0 | | | O |
| <i>Surr: 4-Terphenyl-d14</i> | 5.297 | 0 | 3.286 | 0 | 161 | 39-133 | 0 | | | S |

| | | | | | | | | | | |
|------------------------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MSD | | Sample ID: 1409322-19C MSD | | | | Units: mg/Kg | | Analysis Date: 9/13/2014 09:58 PM | | |
| Client ID: | | Run ID: GC8_140913A | | | | SeqNo: 2934242 | | Prep Date: 9/11/2014 | | DF: 5 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (C10-C28) | 4079 | 78 | 313.1 | 3324 | 241 | 48-110 | 3561 | 13.6 | 30 | SO |
| <i>Surr: 4-Terphenyl-d14</i> | 3.325 | 0 | 3.131 | 0 | 106 | 39-133 | 5.297 | 45.8 | 30 | R |

The following samples were analyzed in this batch: | 1409280-01A |

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409280
Project: WPX DOE 1-W-27 Cuttings 9.5.14

QC BATCH REPORT

Batch ID: **62565** Instrument ID **GC9** Method: **SW8015**

| | | | | | | | | | | |
|-------------------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|---|-----------|--------------|
| MBLK | | Sample ID: MBLK-62565-62565 | | | | Units: µg/Kg | | Analysis Date: 9/9/2014 12:50 PM | | |
| Client ID: | | Run ID: GC9_140909A | | | | SeqNo: 2927586 | | Prep Date: 9/9/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| GRO (C6-C10) | ND | 2,500 | | | | | | | | |
| <i>Surr: Toluene-d8</i> | 4172 | 0 | 5000 | 0 | 83.4 | 50-150 | 0 | | | |

| | | | | | | | | | | |
|-------------------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|---|-----------|--------------|
| LCS | | Sample ID: LCS-62565-62565 | | | | Units: µg/Kg | | Analysis Date: 9/9/2014 12:24 PM | | |
| Client ID: | | Run ID: GC9_140909A | | | | SeqNo: 2927585 | | Prep Date: 9/9/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| GRO (C6-C10) | 464400 | 2,500 | 500000 | 0 | 92.9 | 70-130 | 0 | | | |
| <i>Surr: Toluene-d8</i> | 5197 | 0 | 5000 | 0 | 104 | 50-150 | 0 | | | |

| | | | | | | | | | | |
|-------------------------|--------|----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MS | | Sample ID: 1409276-02A MS | | | | Units: µg/Kg | | Analysis Date: 9/10/2014 02:56 PM | | |
| Client ID: | | Run ID: GC9_140910A | | | | SeqNo: 2928475 | | Prep Date: 9/9/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| GRO (C6-C10) | 527300 | 2,500 | 500000 | 0 | 105 | 70-130 | 0 | | | |
| <i>Surr: Toluene-d8</i> | 4394 | 0 | 5000 | 0 | 87.9 | 50-150 | 0 | | | |

| | | | | | | | | | | |
|-------------------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MSD | | Sample ID: 1409276-02A MSD | | | | Units: µg/Kg | | Analysis Date: 9/10/2014 03:22 PM | | |
| Client ID: | | Run ID: GC9_140910A | | | | SeqNo: 2928476 | | Prep Date: 9/9/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| GRO (C6-C10) | 499100 | 2,500 | 500000 | 0 | 99.8 | 70-130 | 527300 | 5.5 | 30 | |
| <i>Surr: Toluene-d8</i> | 4291 | 0 | 5000 | 0 | 85.8 | 50-150 | 4394 | 2.37 | 30 | |

The following samples were analyzed in this batch:

1409280-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409280
Project: WPX DOE 1-W-27 Cuttings 9.5.14

QC BATCH REPORT

Batch ID: **R147852** Instrument ID **MOIST** Method: **A2540 G**

| | | | | | | | | | | |
|-------------|--------|---------------------------------|---------|---------------|------|-----------------------|---------------|---|-----------|--------------|
| MBLK | | Sample ID: WBLKS-R147852 | | | | Units: % of sample | | Analysis Date: 9/8/2014 07:55 PM | | |
| Client ID: | | Run ID: MOIST_140908F | | | | SeqNo: 2928505 | | 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-R147852 | | | | Units: % of sample | | Analysis Date: 9/8/2014 07:55 PM | | |
| Client ID: | | Run ID: MOIST_140908F | | | | SeqNo: 2928504 | | 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: 1409146-03A DUP | | | | Units: % of sample | | Analysis Date: 9/8/2014 07:55 PM | | |
| Client ID: | | Run ID: MOIST_140908F | | | | SeqNo: 2928484 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Moisture 8.41 0.050 0 0 0 0-0 8.4 0.119 20

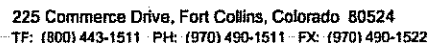
| | | | | | | | | | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|---|-----------|--------------|
| DUP | | Sample ID: 1409269-01B DUP | | | | Units: % of sample | | Analysis Date: 9/8/2014 07:55 PM | | |
| Client ID: | | Run ID: MOIST_140908F | | | | SeqNo: 2928497 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Moisture 14.23 0.050 0 0 0 0-0 14.62 2.7 20

The following samples were analyzed in this batch:

1409280-01A

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



1409280

Form 202r8

1 of 1

~~By Lab~~ or Return to Client

3 Dec

E-MAIL: Karolina.blaney@wpxenergy.com

X

RECEIVED BY

1747

RECEIVED BY

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **06-Sep-14 11:40**

Work Order: **1409280**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

08-Sep-14
Date

Reviewed by: Ann Preston
eSignature

09-Sep-14
Date

Matrices: **Soil**

Carrier name: **FedEx**

| | | | |
|---|---|-----------------------------|--|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on shipping container/cooler? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample(s) received on ice? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Temperature(s)/Thermometer(s): | <u>4.6 C</u> | | |
| Cooler(s)/Kit(s): | | | |
| Date/Time sample(s) sent to storage: | <u>9/8/2014 9:19:17 AM</u> | | |
| Water - VOA vials have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| pH adjusted? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| pH adjusted by: | | | |

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

ALS Parachute Custody Seal

DATE 9-5-14

Time 1500

Name

MM



18-Mar-2015

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

Re: **DOE 1-W-27 Backgrounds**

Work Order: **1503596**

Dear Karolina,

ALS Environmental received 5 samples on 11-Mar-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 13.

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

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: WPX Energy Rocky Mountain, LLC
Project: DOE 1-W-27 Backgrounds
Work Order: 1503596

Work Order Sample Summary

| <u>Lab Samp ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Tag Number</u> | <u>Collection Date</u> | <u>Date Received</u> | <u>Hold</u> |
|--------------------|-------------------------|---------------|-------------------|------------------------|----------------------|--------------------------|
| 1503596-01 | DOE 1-W-27-B-1 | Soil | | 3/10/2015 10:10 | 3/11/2015 09:30 | <input type="checkbox"/> |
| 1503596-02 | DOE 1-W-27-B-2 | Soil | | 3/10/2015 10:15 | 3/11/2015 09:30 | <input type="checkbox"/> |
| 1503596-03 | DOE 1-W-27-B-3 | Soil | | 3/10/2015 10:20 | 3/11/2015 09:30 | <input type="checkbox"/> |
| 1503596-04 | DOE 1-W-27-B-4 | Soil | | 3/10/2015 10:25 | 3/11/2015 09:30 | <input type="checkbox"/> |
| 1503596-05 | DOE 1-W-27-B-5 | Soil | | 3/10/2015 10:30 | 3/11/2015 09:30 | <input type="checkbox"/> |

Client: WPX Energy Rocky Mountain, LLC
Project: DOE 1-W-27 Backgrounds
WorkOrder: 1503596

QUALIFIERS, ACRONYMS, UNITS

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

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

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

ALS Group USA, Corp**Date:** 18-Mar-15**Client:** WPX Energy Rocky Mountain, LLC**Project:** DOE 1-W-27 Backgrounds**Work Order:** 1503596**Sample ID:** DOE 1-W-27-B-1**Lab ID:** 1503596-01**Collection Date:** 3/10/2015 10:10 AM**Matrix:** SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|-------------------------------|--------|------|----------------------------|-------------|------------------------------|---|
| METALS ANALYSIS BY ICP | | | | | | |
| Arsenic | 13 | | SW846 6010C 0.47 | mg/Kg-dry | Prep: SW3050B / 3/12/15 1 | Analyst: JEC 3/13/2015 05:03 PM |
| MOISTURE | | | | | | |
| Moisture | 12 | | E160.3M 0.050 | % of sample | 1 | Analyst: EVB 3/13/2015 12:35 PM |

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

ALS Group USA, Corp

Date: 18-Mar-15

Client: WPX Energy Rocky Mountain, LLC

Project: DOE 1-W-27 Backgrounds

Work Order: 1503596

Sample ID: DOE 1-W-27-B-2

Lab ID: 1503596-02

Collection Date: 3/10/2015 10:15 AM

Matrix: SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|-------------------------------|--------|------|---------------------|-------------|--------------------|---|
| METALS ANALYSIS BY ICP | | | | | | |
| Arsenic | 5.5 | | SW846 6010C 0.41 | mg/Kg-dry | 1 | Prep: SW3050B / 3/12/15 Analyst: JEC 3/13/2015 05:31 PM |
| MOISTURE | | | | | | |
| Moisture | 9.0 | | E160.3M 0.050 | % of sample | 1 | Analyst: EVB 3/13/2015 12:35 PM |

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

ALS Group USA, Corp**Date:** 18-Mar-15**Client:** WPX Energy Rocky Mountain, LLC**Project:** DOE 1-W-27 Backgrounds**Work Order:** 1503596**Sample ID:** DOE 1-W-27-B-3**Lab ID:** 1503596-03**Collection Date:** 3/10/2015 10:20 AM**Matrix:** SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|-------------------------------|--------|------|----------------------------|-------------|------------------------------|---|
| METALS ANALYSIS BY ICP | | | | | | |
| Arsenic | 11 | | SW846 6010C 0.43 | mg/Kg-dry | Prep: SW3050B / 3/12/15 1 | Analyst: JEC 3/13/2015 05:37 PM |
| MOISTURE | | | | | | |
| Moisture | 8.7 | | E160.3M 0.050 | % of sample | 1 | Analyst: EVB 3/13/2015 12:35 PM |

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

ALS Group USA, Corp

Date: 18-Mar-15

Client: WPX Energy Rocky Mountain, LLC

Project: DOE 1-W-27 Backgrounds

Work Order: 1503596

Sample ID: DOE 1-W-27-B-4

Lab ID: 1503596-04

Collection Date: 3/10/2015 10:25 AM

Matrix: SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|-------------------------------|--------|------|---------------------|-------------|------------------------------|------------------------------------|
| METALS ANALYSIS BY ICP | | | | | | |
| Arsenic | 6.4 | | SW846 6010C 0.44 | mg/Kg-dry | Prep: SW3050B / 3/12/15 1 | Analyst: JEC 3/13/2015 05:53 PM |
| MOISTURE | | | | | | |
| Moisture | 12 | | E160.3M 0.050 | % of sample | 1 | Analyst: EVB 3/13/2015 12:35 PM |

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

ALS Group USA, Corp**Date:** 18-Mar-15**Client:** WPX Energy Rocky Mountain, LLC**Project:** DOE 1-W-27 Backgrounds**Work Order:** 1503596**Sample ID:** DOE 1-W-27-B-5**Lab ID:** 1503596-05**Collection Date:** 3/10/2015 10:30 AM**Matrix:** SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|-------------------------------|--------|------|----------------------------|-------------|------------------------------|---|
| METALS ANALYSIS BY ICP | | | | | | |
| Arsenic | 8.7 | | SW846 6010C 0.42 | mg/Kg-dry | Prep: SW3050B / 3/12/15 1 | Analyst: JEC 3/13/2015 05:58 PM |
| MOISTURE | | | | | | |
| Moisture | 10 | | E160.3M 0.050 | % of sample | 1 | Analyst: EVB 3/13/2015 12:35 PM |

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

ALS Group USA, Corp

Date: 18-Mar-15

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503596
Project: DOE 1-W-27 Backgrounds

QC BATCH REPORT

Batch ID: **68545** Instrument ID **ICP2** Method: **SW846 6010C**

| | | | | | | | | | | |
|-------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: MBLK-68545-68545 | | | | Units: mg/Kg | | Analysis Date: 3/13/2015 04:14 PM | | |
| Client ID: | | Run ID: ICP2_150313A | | | | SeqNo: 3177445 | | Prep Date: 3/12/2015 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Arsenic ND 0.25

| | | | | | | | | | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| LCS | | Sample ID: LCS-68545-68545 | | | | Units: mg/Kg | | Analysis Date: 3/13/2015 04:20 PM | | |
| Client ID: | | Run ID: ICP2_150313A | | | | SeqNo: 3177446 | | Prep Date: 3/12/2015 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Arsenic 4.812 0.25 5 0 96.2 80-120 0

| | | | | | | | | | | |
|----------------------------------|--------|---------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MS | | Sample ID: 1503596-03AMS | | | | Units: mg/Kg | | Analysis Date: 3/13/2015 05:42 PM | | |
| Client ID: DOE 1-W-27-B-3 | | Run ID: ICP2_150313A | | | | SeqNo: 3177462 | | Prep Date: 3/12/2015 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Arsenic 19.7 0.39 7.825 10.46 118 75-125 0

| | | | | | | | | | | |
|----------------------------------|--------|---------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MS | | Sample ID: 1503596-03AMS | | | | Units: mg/Kg | | Analysis Date: 3/16/2015 05:06 PM | | |
| Client ID: DOE 1-W-27-B-3 | | Run ID: ICP2_150316B | | | | SeqNo: 3179842 | | Prep Date: 3/12/2015 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Arsenic 20.83 0.39 7.825 11.51 119 75-125 0

| | | | | | | | | | | |
|----------------------------------|--------|----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MSD | | Sample ID: 1503596-03AMSD | | | | Units: mg/Kg | | Analysis Date: 3/13/2015 05:48 PM | | |
| Client ID: DOE 1-W-27-B-3 | | Run ID: ICP2_150313A | | | | SeqNo: 3177463 | | Prep Date: 3/12/2015 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Arsenic 19.33 0.39 7.812 10.46 114 75-125 19.7 1.88 20

| | | | | | | | | | | |
|----------------------------------|--------|----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MSD | | Sample ID: 1503596-03AMSD | | | | Units: mg/Kg | | Analysis Date: 3/16/2015 05:11 PM | | |
| Client ID: DOE 1-W-27-B-3 | | Run ID: ICP2_150316B | | | | SeqNo: 3179843 | | Prep Date: 3/12/2015 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Arsenic 20.91 0.39 7.812 11.51 120 75-125 20.83 0.386 20

The following samples were analyzed in this batch:

| | | |
|-------------|-------------|-------------|
| 1503596-01A | 1503596-02A | 1503596-03A |
| 1503596-04A | 1503596-05A | |

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503596
Project: DOE 1-W-27 Backgrounds

QC BATCH REPORT

Batch ID: **R159209** Instrument ID **MOIST** Method: **E160.3M**

| | | | | | | | | | | |
|------------|--------|--------------------------|---------|---------------|------|--------------------|---------------|-----------------------------------|-----------|-------|
| MBLK | | Sample ID: WBLKS-R159209 | | | | Units: % of sample | | Analysis Date: 3/13/2015 12:35 PM | | |
| Client ID: | | Run ID: MOIST_150313A | | | | SeqNo: 3178660 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Moisture | 0.03 | 0.050 | | | | | | | | J |

| | | | | | | | | | | |
|------------|--------|------------------------|---------|---------------|------|--------------------|---------------|-----------------------------------|-----------|-------|
| LCS | | Sample ID: LCS-R159209 | | | | Units: % of sample | | Analysis Date: 3/13/2015 12:35 PM | | |
| Client ID: | | Run ID: MOIST_150313A | | | | SeqNo: 3178659 | | 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: 1503592-01A DUP | | | | Units: % of sample | | | Analysis Date: 3/13/2015 12:35 PM | | | |
| Client ID: | | | | Run ID: MOIST_150313A | | | | SeqNo: 3178643 | | | Prep Date: | | DF: 1 | |
| Analyte | | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | | | |
| Moisture | | 9.02 | 0.050 | 0 | 0 | 0 | | 8.99 | 0.333 | 20 | | | | |

| | | | | | | | | | | | | | |
|---------------------------|--------|-------|---------|----------------------------|------|---------------|---------------|--------------------|-----------|-----------------------------------|--|-------|--|
| DUP | | | | Sample ID: 1503596-05A DUP | | | | Units: % of sample | | Analysis Date: 3/13/2015 12:35 PM | | | |
| Client ID: DOE 1-W-27-B-5 | | | | Run ID: MOIST_150313A | | | | SeqNo: 3178652 | | Prep Date: | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | | | |
| Moisture | 10.71 | 0.050 | 0 | 0 | 0 | | 10.49 | 2.08 | 20 | | | | |

The following samples were analyzed in this batch:

| | | |
|-------------|-------------|-------------|
| 1503596-01A | 1503596-02A | 1503596-03A |
| 1503596-04A | 1503596-05A | |

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

WORKORDER
#

1503 596

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

[illegible]

*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: <div style="text-align: center; font-size: 2em;">4.02 @</div> | QC PACKAGE (check below) | |
| | <input checked="" type="checkbox"/> X | LEVEL II (Standard QC) |
| | <input type="checkbox"/> | LEVEL III (Std QC + forms) |
| | <input type="checkbox"/> | LEVEL IV (Std QC + forms + raw data) |
| | <input type="checkbox"/> | |
| Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-NaHSO ₄ 7-Other 8-4 degrees C 9-5035 | | |

| | SIGNATURE | PRINTED NAME | DATE | TIME |
|-----------------|------------------------|--------------------|-----------|-------|
| RELINQUISHED BY | <i>Karolina Blaney</i> | Karolina Blaney | 3/10/2015 | 18:00 |
| RECEIVED BY | <i>[Signature]</i> | <i>[Signature]</i> | 3-10 | 1700 |
| RELINQUISHED BY | <i>[Signature]</i> | <i>[Signature]</i> | 3-10 | 1700 |
| RECEIVED BY | <i>[Signature]</i> | Diane F. Shea | 3/11/15 | 0930 |
| RELINQUISHED BY | | | | |
| RECEIVED BY | | | | |

3/10/2015

FedEx Ship Manager - Print Your Label(s)

From: (816) 298-1033
Nick Martinez
ALS Environmental
127 E. 1st Street

Origin ID: RILA

FedEx
Express



J151215022303uv

PARACHUTE, CO 81635

SHIP TO: (816) 399-6970

BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

Ship Date: 10MAR15
ActWgt: 72.0 LB
CAD: 2264840/NET3610

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code



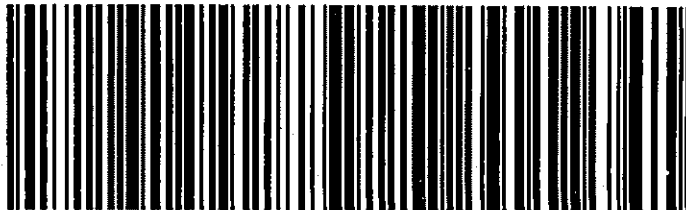
Ref # 0301015-3
Invoice #
PO # Parachute
Dept #

WED - 11 MAR 10:30A
PRIORITY OVERNIGHT

TRK# 7730 9554 2370
0281

XX HLMA

49424
MH-US
GRR



537J187BAEE4B

/templates/components/dotcom_label_contents/FoldInstr/en/Folding_instructions.html loading...

/templates/components/dotcom_label_contents/WarningsOriginalLabel/en/Folding_warning.html loading...

/templates/components/dotcom_label_contents/TnCDom/us/en/TC_dom.html loading...

ALS Parachute Custody Seal
Time Date
Name

Sample Receipt Checklist

Client Name: **WPX**

Date/Time Received: **11-Mar-15 09:30**

Work Order: **1503596**

Received by: **DS**

Checklist completed by Diane Shaw 11-Mar-15
eSignature Date

Reviewed by: Chad Whelton 11-Mar-15
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

| | | | |
|---|---|-----------------------------|--|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on shipping container/cooler? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample(s) received on ice? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Temperature(s)/Thermometer(s): | <u>4.0 c</u> <u>SR2</u> | | |
| Cooler(s)/Kit(s): | <u></u> | | |
| Date/Time sample(s) sent to storage: | <u>3/11/2015 3:25:03 PM</u> | | |
| Water - VOA vials have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| pH adjusted? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| pH adjusted by: | <u>-</u> | | |

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: