

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

OIL CONS. DIV DIST. 3

DEC 12 2014

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office to  
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company <b>ConocoPhillips Company</b>	Contact <b>Lindsay Dumas</b>
Address <b>3401 East 30<sup>th</sup> St, Farmington, NM</b>	Telephone No. <b>(505) 599-4089</b>
Facility Name: <b>Huerfano 156</b>	Facility Type: <b>Gas Well</b>

Surface Owner <b>NM 03017</b>	Mineral Owner <b>BLM</b>	API No. <b>3004520003</b>
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LOCATION OF RELEASE

Unit Letter <b>C</b>	Section <b>06</b>	Township <b>26N</b>	Range <b>09W</b>	Feet from the <b>990'</b>	North/South Line <b>North Line</b>	Feet from the <b>1800'</b>	East/West Line <b>West Line</b>	County <b>San Juan</b>
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Latitude ~~36.52456~~ **36.52455** Longitude ~~-107.8318~~ **-107.83248**

NATURE OF RELEASE

Type of Release <b>Produced Water</b>	Volume of Release <b>Unknown</b>	Volume Recovered <b>0</b>
Source of Release <b>Discharge lines between the below grade tank and separator</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>Unknown</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

**Contaminated soil was found during facility activities**

Describe Area Affected and Cleanup Action Taken.\*

**Historical hydrocarbon impacted soil was found during facility activities on this location. The excavation was 14' X 10' X 6' and 80 c/yds of soil was transported to Envirotech landfarm and 80 c/yds of clean soil was transported from Aztec Machine Co. and placed in the excavation site. Based on the final field sampling and laboratory analytical results of the excavation, all were below applicable NMOCD action levels; no further remediation is recommended. The soil sampling report is attached for review.**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Lindsay Dumas</i>	OIL CONSERVATION DIVISION	
Printed Name: <b>Lindsay Dumas</b>	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: <b>Field Environmental Specialist</b>	Approval Date: <b>11/9/2015</b>	Expiration Date:
E-mail Address: <b>Lindsay.Dumas@cop.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>11/25/2014</b>	Phone: <b>505-599-4089</b>	

\* Attach Additional Sheets If Necessary

#NCS1500932681

24



November 3, 2014

Lindsay Dumas  
ConocoPhillips  
San Juan Business Unit  
Office 214-07  
5525 Hwy 64  
Farmington, New Mexico 87401

*Via electronic mail to:*  
[SJBUE-Team@ConocoPhillips.com](mailto:SJBUE-Team@ConocoPhillips.com)

**RE: Final Excavation Report  
Huerfano #156  
San Juan County, New Mexico**

Dear Ms. Dumas:

On October 2, 2014, Animas Environmental Services, LLC (AES) completed an environmental clearance of the final excavation limits at the ConocoPhillips (CoP) Huerfano #156, located in San Juan County, New Mexico. The historic release was discovered while replacing the discharge lines between the below grade tank (BGT) and separator on the location. The final excavation was completed by CoP contractors prior to AES' arrival at the location on October 2, 2014.

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## 1.0 Site Information

### 1.1 Location

Site Name – Huerfano #156

Location – NE¼ NW¼, Section 6, T26N, R9W, San Juan County, New Mexico

Well Head Latitude/Longitude – N36.52175 and W107.83254,  
respectively

Release Location Latitude/Longitude – N36.52155 and W107.83248,  
respectively

Land Jurisdiction – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, October 2014

604 W. Piñon St.  
Farmington, NM 87401  
505-564-2281

1911 Main, Ste 280  
Durango, CO  
970-403-3084

## 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 20 based on the following factors:

- **Depth to Groundwater:** A cathodic protection report form dated May 1991 for the Huerfano #156 reported the depth to groundwater at 178 feet below ground surface (bgs). (0 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** Approximately 115 feet to the east and 170 feet to the northwest are two unnamed ephemeral washes that discharge to the wash in Jaquez Canyon. (20 points)

## 1.3 Assessment

AES was initially contacted by Travis Andrews, CoP representative, on October 2, 2014, and on the same day, Emilee Skyles of AES completed excavation field work. Field sampling activities included collection of five confirmation soil samples from the walls and base of the excavation and one composite sample of the excavation. The area of the final excavation measured approximately 14 feet by 10 feet by 6 feet in depth. Sample locations and final excavation extents are presented on Figure 3.

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## 2.0 Soil Sampling

A total of six composite samples (SC-1 through SC-6) were collected during the environmental excavation clearance assessment. Soil samples SC-1 through SC-5 were field screened for volatile organic compounds (VOCs) and analyzed for total petroleum hydrocarbons (TPH). Samples SC-1 through SC-5 were submitted for confirmation laboratory analysis, and composite sample SC-6 was submitted for chloride analysis.

### 2.1 Field Sampling

#### 2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

### 2.1.2 Total Petroleum Hydrocarbons

Field TPH samples were analyzed per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per USEPA Method 418.1*.

## 2.2 Laboratory Analyses

The soil samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. Soil samples SC-1 through SC-5 were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B; and
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D.

Soil sample SC-6 was laboratory analyzed for:

- Chlorides per USEPA Method 300.0.

## 2.3 Field and Laboratory Analytical Results

On October 2, 2014, final excavation field screening results for VOCs via OVM ranged from 2.2 ppm in SC-3 up to 375 ppm in SC-4. Field TPH concentrations ranged from less than 20.0 mg/kg in SC-1 through SC-3 up to 53.8 mg/kg in SC-4. Results are included below in Table 1 and on Figure 3. The AES Field Sampling Report is attached.

Table 1. Field Sampling VOCs and TPH Results  
Huerfano #156 Final Excavation, October 2014

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>TPH 418.1 (mg/kg)</i>
<i>NMOCD Action Level*</i>			<i>100</i>	<i>100</i>
SC-1	10/2/14	1 to 6	27.1	<20.0
SC-2	10/2/14	1 to 6	45.8	<20.0
SC-3	10/2/14	1 to 6	2.2	<20.0
SC-4	10/2/14	1 to 6	<b>375</b>	53.8
SC-5	10/2/14	6	<b>188</b>	23.2

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>TPH 418.1 (mg/kg)</i>
<i>NMOCD Action Level*</i>			100	100
SC-6	10/2/14	1 to 6	NA	NA

NA – not analyzed

\*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

Laboratory analyses for SC-1 through SC-5 were used to confirm field sampling results from the final excavation, and SC-6 was laboratory analyzed for chlorides. Benzene concentrations in SC-1 through SC-5 were reported below laboratory detection limits. Total BTEX concentrations were below laboratory detection limits in SC-1 through SC-3 and SC-5 and were reported at 0.19 mg/kg in SC-4. TPH concentrations as GRO/DRO were reported below the laboratory detection limits in SC-1 through SC-3 and at 40 mg/kg in SC-4 and 7.3 mg/kg in SC-5. Chloride concentrations in SC-6 were reported below the laboratory detection limit of 30 mg/kg. Results are presented in Table 2 and on Figure 3. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chlorides  
Huerfano #156 Final Excavation, October 2014

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>GRO (mg/kg)</i>	<i>DRO (mg/kg)</i>	<i>Chlorides (mg/kg)</i>
<i>NMOCD Action Level*</i>			10	50	100		NE
SC-1	10/2/14	1 to 6	<0.034	<0.169	<3.4	<9.9	NA
SC-2	10/2/14	1 to 6	<0.033	<0.165	<3.3	<9.9	NA
SC-3	10/2/14	1 to 6	<0.033	<0.166	<3.3	<10	NA
SC-4	10/2/14	1 to 6	<0.066	0.19	40	<10	NA
SC-5	10/2/14	6	<0.072	<0.356	7.3	<10	NA
SC-6	10/2/14	1 to 6	NA	NA	NA	NA	<30

NA – not analyzed

NE – not established

\*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

### 3.0 Conclusions and Recommendations

On October 2, 2014, AES completed clearance of the excavation area associated with historically contaminated soils at the Huerfano #156. Action levels for releases are determined by the NMOCD ranking score per NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993), and the site was assigned a rank of 20.

Field sampling results of the excavation extents showed that VOC concentrations were below the applicable NMOCD action level of 100 ppm for the final walls of the excavation, except for SC-4 (west wall), which had a VOC concentration of 375 ppm. The base (SC-5) was also above the NMOCD action level with a VOC concentration of 188 ppm. Field TPH concentrations were below the applicable NMOCD action level of 100 mg/kg for the final walls and base of the excavation. Laboratory analytical results reported benzene, total BTEX, and TPH concentrations (as GRO/DRO) in SC-1 through SC-5 also below NMOCD action levels. Chloride concentrations were reported below laboratory detection limits in SC-6.

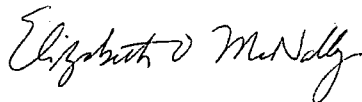
Based on final field sampling and laboratory analytical results of the excavation of historically contaminated soils at the Huerfano #156, VOC, benzene, total BTEX, and TPH concentrations were below applicable NMOCD action levels for each of the sidewalls and base of the excavation. No further work is recommended.

If you have any questions about this report or site conditions, please do not hesitate to contact Emilee Skyles at (505) 564-2281.

Sincerely,



David J. Reese  
Environmental Scientist

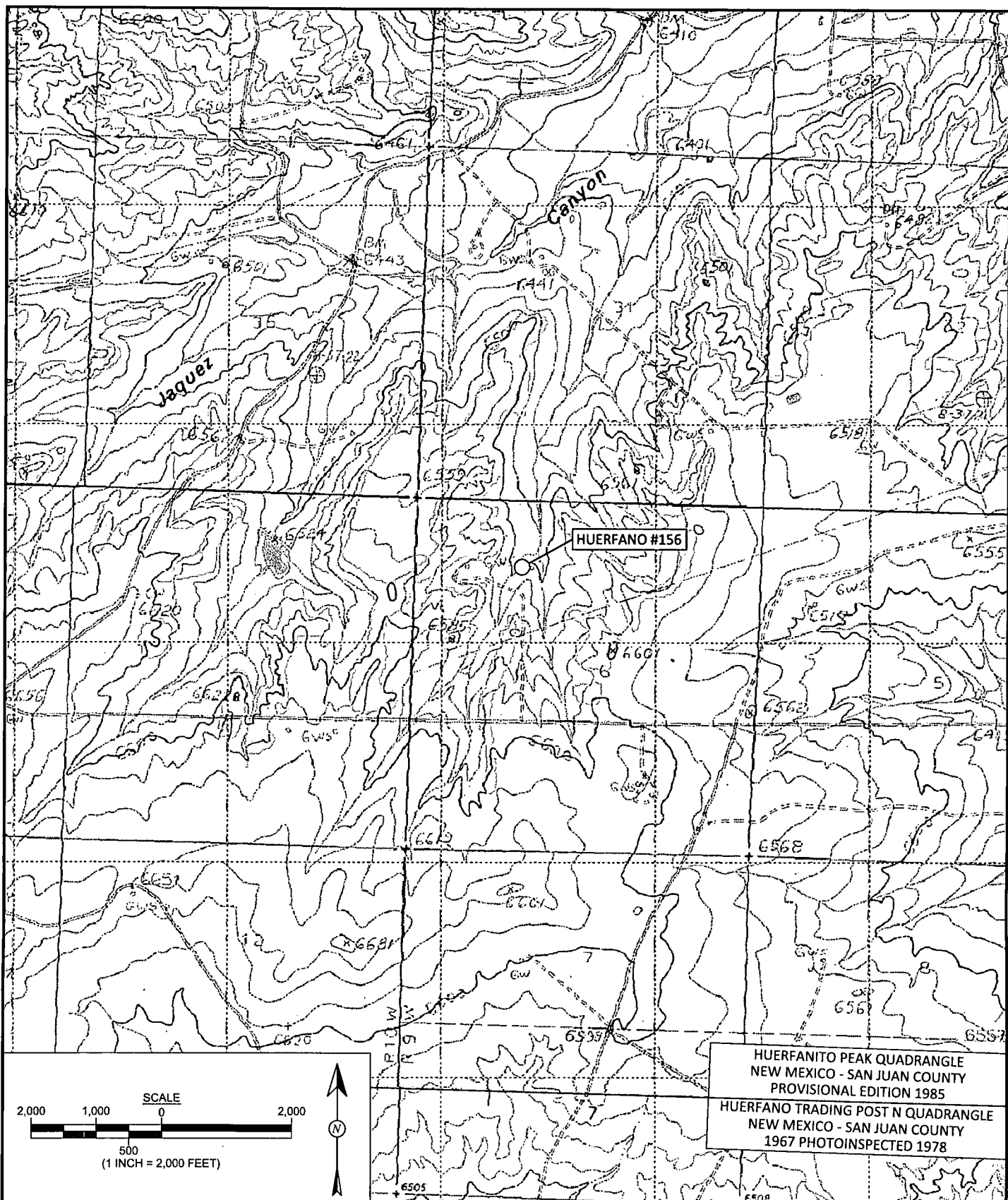


Elizabeth McNally, PE

**Attachments:**

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, October 2014
- Figure 3. Final Excavation Sample Locations and Results, October 2014
- AES Field Sampling Report 100214
- Hall Laboratory Analytical Report 1410140

R:\Animas 2000\Dropbox\0000 Animas Server Dropbox EM\2014 Projects\ConocoPhillips\Huerfano #156\Huerfano #156 Final Excavation Report 110314.docx



HUERNFANO PEAK QUADRANGLE  
NEW MEXICO - SAN JUAN COUNTY  
PROVISIONAL EDITION 1985  
HUERNFANO TRADING POST N QUADRANGLE  
NEW MEXICO - SAN JUAN COUNTY  
1967 PHOTOINSPECTED 1978



Animas Environmental Services, LLC

<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> October 03, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> October 03, 2014
<b>CHECKED BY:</b> E. Skyles	<b>DATE CHECKED:</b> October 03, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> October 03, 2014

## FIGURE 1

**TOPOGRAPHIC SITE LOCATION MAP**  
ConocoPhillips  
HUERNFANO #156  
NE¼ NW¼, SECTION 6, T26N, R9W  
SAN JUAN COUNTY, NEW MEXICO  
N36.52175, W107.83254





Animas Environmental Services, LLC

<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> October 03, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> October 03, 2014
<b>CHECKED BY:</b> E. Skyles	<b>DATE CHECKED:</b> October 03, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> October 03, 2014

## FIGURE 2

### AERIAL SITE MAP OCTOBER 2014

ConocoPhillips  
HUERFANO #156  
NE¼ NW¼, SECTION 6, T26N, R9W  
SAN JUAN COUNTY, NEW MEXICO  
N36.52175, W107.83254

# FIGURE 3

**FINAL EXCAVATION SAMPLE  
LOCATIONS AND RESULTS  
OCTOBER 2014**  
ConocoPhillips  
HUERFANO #156  
NE¼ NW¼, SECTION 6, T26N, R9W  
SAN JUAN COUNTY, NEW MEXICO  
N36.52175, W107.83254



Animas Environmental Services, LLC

**DRAWN BY:** C. Lameman  
**DATE DRAWN:** October 3, 2014

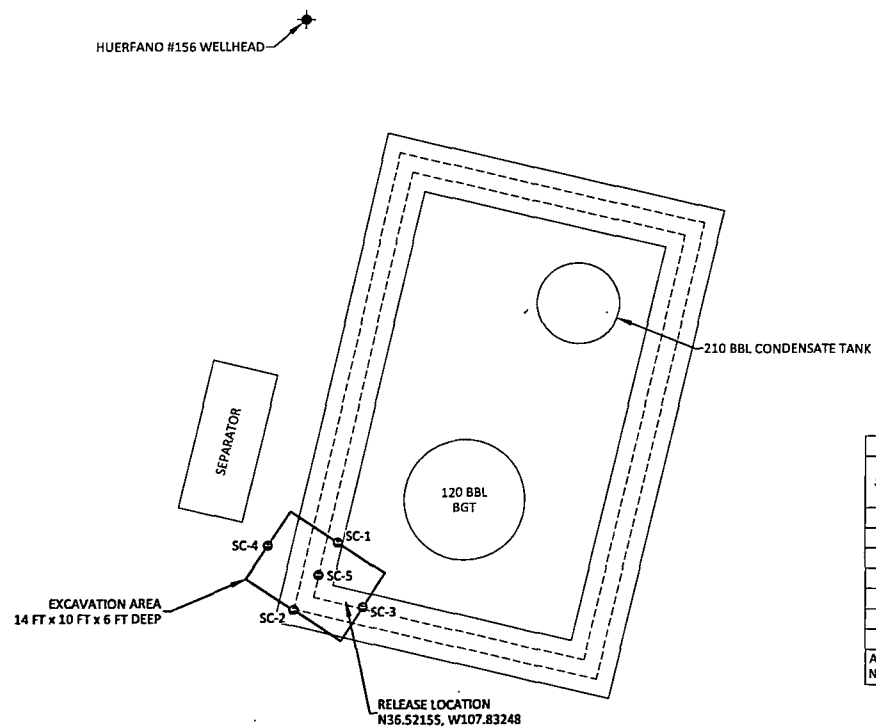
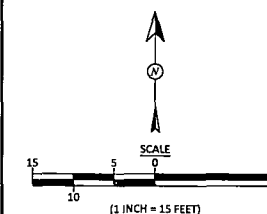
**REVISIONS BY:** C. Lameman  
**DATE REVISED:** October 3, 2014

**CHECKED BY:** E. Skyles  
**DATE CHECKED:** October 3, 2014

**APPROVED BY:** E. McNally  
**DATE APPROVED:** October 3, 2014

## LEGEND

- SAMPLE LOCATIONS
- ===== SECONDARY CONTAINMENT BERM
- x — FENCE



Field Sampling Results					
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)	
NMOCD ACTION LEVEL			100	100	
SC-1	10/2/14	1 to 6	27.1	<20.0	
SC-2	10/2/14	1 to 6	45.8	<20.0	
SC-3	10/2/14	1 to 6	2.2	<20.0	
SC-4	10/2/14	1 to 6	375	53.8	
SC-5	10/2/14	6	188	23.2	
SC-6	10/2/14	1 to 6	NA	NA	

SC-6 IS A COMPOSITE SAMPLE OF ALL THE WALLS AND THE BASE. NA - NOT ANALYZED

Laboratory Analytical Results							
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL			10	50	100		NE
SC-1	10/2/14	1 to 6	<0.034	<0.169	<3.4	<9.9	NA
SC-2	10/2/14	1 to 6	<0.033	<0.165	<3.3	<9.9	NA
SC-3	10/2/14	1 to 6	<0.033	<0.166	<3.3	<10	NA
SC-4	10/2/14	1 to 6	<0.066	0.19	40	<10	NA
SC-5	10/2/14	6	<0.072	<0.356	7.3	<10	NA
SC-6	10/2/14	1 to 6	NA	NA	NA	NA	<30

ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B AND 8015D, OR 300.0.  
NA - NOT ANALYZED, NE - NOT ESTABLISHED

# AES Field Sampling Report



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

Client: ConocoPhillips

Project Location: Huerfano #156

Date: 10/2/2014

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVN (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	10/2/2014	11:30	North Wall	27.1	17.3	12:15	20.0	1	EMS
SC-2	10/2/2014	11:33	South Wall	45.8	11.5	12:19	20.0	1	EMS
SC-3	10/2/2014	11:37	East Wall	2.2	10.0	12:21	20.0	1	EMS
SC-4	10/2/2014	11:39	West Wall	375	53.8	12:26	20.0	1	EMS
SC-5	10/2/2014	11:43	Base	188	23.2	12:24	20.0	1	EMS

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

\*TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

Emil Syl



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

October 06, 2014

Emilee Skyles  
Animas Environmental  
604 Pinon Street  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX:

RE: CoP Huerfano #156

OrderNo.: 1410140

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/3/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman'.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1410140

Date Reported: 10/6/2014

CLIENT: Animas Environmental

Client Sample ID: SC-1

Project: CoP Huerfano #156

Collection Date: 10/2/2014 11:30:00 AM

Lab ID: 1410140-001

Matrix: SOIL

Received Date: 10/3/2014 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/3/2014 12:33:39 PM	15696
Surr: DNOP	93.9	57.9-140		%REC	1	10/3/2014 12:33:39 PM	15696
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	10/3/2014 12:06:18 PM	R21650
Surr: BFB	100	80-120		%REC	1	10/3/2014 12:06:18 PM	R21650
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.034		mg/Kg	1	10/3/2014 12:06:18 PM	R21650
Toluene	ND	0.034		mg/Kg	1	10/3/2014 12:06:18 PM	R21650
Ethylbenzene	ND	0.034		mg/Kg	1	10/3/2014 12:06:18 PM	R21650
Xylenes, Total	ND	0.067		mg/Kg	1	10/3/2014 12:06:18 PM	R21650
Surr: 4-Bromofluorobenzene	96.5	80-120		%REC	1	10/3/2014 12:06:18 PM	R21650

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1410140

Date Reported: 10/6/2014

CLIENT: Animas Environmental

Client Sample ID: SC-2

Project: CoP Huerfano #156

Collection Date: 10/2/2014 11:33:00 AM

Lab ID: 1410140-002

Matrix: SOIL

Received Date: 10/3/2014 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/3/2014 1:04:02 PM	15696
Surr: DNOP	89.1	57.9-140		%REC	1	10/3/2014 1:04:02 PM	15696
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	10/3/2014 12:34:53 PM	R21650
Surr: BFB	97.9	80-120		%REC	1	10/3/2014 12:34:53 PM	R21650
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.033		mg/Kg	1	10/3/2014 12:34:53 PM	R21650
Toluene	ND	0.033		mg/Kg	1	10/3/2014 12:34:53 PM	R21650
Ethylbenzene	ND	0.033		mg/Kg	1	10/3/2014 12:34:53 PM	R21650
Xylenes, Total	ND	0.066		mg/Kg	1	10/3/2014 12:34:53 PM	R21650
Surr: 4-Bromofluorobenzene	96.2	80-120		%REC	1	10/3/2014 12:34:53 PM	R21650

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1410140

Date Reported: 10/6/2014

CLIENT: Animas Environmental

Client Sample ID: SC-3

Project: CoP Huerfano #156

Collection Date: 10/2/2014 11:37:00 AM

Lab ID: 1410140-003

Matrix: SOIL

Received Date: 10/3/2014 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/3/2014 1:34:49 PM	15696
Surr: DNOP	101	57.9-140		%REC	1	10/3/2014 1:34:49 PM	15696
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	10/3/2014 1:03:33 PM	R21650
Surr: BFB	91.8	80-120		%REC	1	10/3/2014 1:03:33 PM	R21650
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.033		mg/Kg	1	10/3/2014 1:03:33 PM	R21650
Toluene	ND	0.033		mg/Kg	1	10/3/2014 1:03:33 PM	R21650
Ethylbenzene	ND	0.033		mg/Kg	1	10/3/2014 1:03:33 PM	R21650
Xylenes, Total	ND	0.067		mg/Kg	1	10/3/2014 1:03:33 PM	R21650
Surr: 4-Bromofluorobenzene	94.7	80-120		%REC	1	10/3/2014 1:03:33 PM	R21650

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 10
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

**Analytical Report**

Lab Order 1410140

Date Reported: 10/6/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Animas Environmental**Client Sample ID:** SC-4**Project:** CoP Huerfano #156**Collection Date:** 10/2/2014 11:39:00 AM**Lab ID:** 1410140-004**Matrix:** SOIL**Received Date:** 10/3/2014 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/3/2014 2:05:38 PM	15696
Surr: DNOP	87.7	57.9-140		%REC	1	10/3/2014 2:05:38 PM	15696
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	40	6.6		mg/Kg	2	10/3/2014 1:32:17 PM	R21650
Surr: BFB	278	80-120	S	%REC	2	10/3/2014 1:32:17 PM	R21650
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.066		mg/Kg	2	10/3/2014 1:32:17 PM	R21650
Toluene	ND	0.066		mg/Kg	2	10/3/2014 1:32:17 PM	R21650
Ethylbenzene	ND	0.066		mg/Kg	2	10/3/2014 1:32:17 PM	R21650
Xylenes, Total	0.19	0.13		mg/Kg	2	10/3/2014 1:32:17 PM	R21650
Surr: 4-Bromofluorobenzene	104	80-120		%REC	2	10/3/2014 1:32:17 PM	R21650

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1410140

Date Reported: 10/6/2014

CLIENT: Animas Environmental

Client Sample ID: SC-5

Project: CoP Huerfano #156

Collection Date: 10/2/2014 11:43:00 AM

Lab ID: 1410140-005

Matrix: SOIL

Received Date: 10/3/2014 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/3/2014 2:36:40 PM	15696
Surr: DNOP	93.1	57.9-140		%REC	1	10/3/2014 2:36:40 PM	15696
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	7.3	7.2		mg/Kg	2	10/3/2014 2:00:54 PM	R21650
Surr: BFB	122	80-120	S	%REC	2	10/3/2014 2:00:54 PM	R21650
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.072		mg/Kg	2	10/3/2014 2:00:54 PM	R21650
Toluene	ND	0.072		mg/Kg	2	10/3/2014 2:00:54 PM	R21650
Ethylbenzene	ND	0.072		mg/Kg	2	10/3/2014 2:00:54 PM	R21650
Xylenes, Total	ND	0.14		mg/Kg	2	10/3/2014 2:00:54 PM	R21650
Surr: 4-Bromofluorobenzene	99.2	80-120		%REC	2	10/3/2014 2:00:54 PM	R21650

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1410140

Date Reported: 10/6/2014

CLIENT: Animas Environmental

Client Sample ID: SC-6

Project: CoP Huerfano #156

Collection Date: 10/2/2014 1:00:00 PM

Lab ID: 1410140-006

Matrix: SOIL

Received Date: 10/3/2014 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGP
Chloride	ND	30		mg/Kg	20	10/3/2014 11:51:43 AM	15699

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410140

06-Oct-14

Client: Animas Environmental

Project: CoP Huerfano #156

Sample ID: MB-15699	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 15699	RunNo: 21676								
Prep Date: 10/3/2014	Analysis Date: 10/3/2014	SeqNo: 636273 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-15699</b>		SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>						
Client ID: <b>LCSS</b>		Batch ID: <b>15699</b>		RunNo: <b>21676</b>						
Prep Date: <b>10/3/2014</b>		Analysis Date: <b>10/3/2014</b>		SeqNo: <b>636274</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	90	110			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410140

06-Oct-14

Client: Animas Environmental

Project: CoP Huerfano #156

Sample ID: <b>MB-15696</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>15696</b>	RunNo: <b>21649</b>								
Prep Date: <b>10/3/2014</b>	Analysis Date: <b>10/3/2014</b>	SeqNo: <b>635349</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.9		10.00		79.3	57.9	140			

Sample ID: <b>LCS-15696</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>15696</b>	RunNo: <b>21649</b>								
Prep Date: <b>10/3/2014</b>	Analysis Date: <b>10/3/2014</b>	SeqNo: <b>635354</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	107	68.6	130			
Surr: DNOP	4.5		5.000		90.3	57.9	140			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH greater than 2.  
RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410140

06-Oct-14

Client: Animas Environmental

Project: CoP Huerfano #156

Sample ID: <b>MB-15674 MK</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>R21650</b>	RunNo: <b>21650</b>								
Prep Date:	Analysis Date: <b>10/3/2014</b>	SeqNo: <b>635786</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	900		1000		90.0	80	120			

Sample ID: <b>LCS-15674 MK</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>R21650</b>	RunNo: <b>21650</b>								
Prep Date:	Analysis Date: <b>10/3/2014</b>	SeqNo: <b>635787</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	65.8	139			
Surr: BFB	1000		1000		100	80	120			

## Qualifiers:

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410140

06-Oct-14

Client: Animas Environmental

Project: CoP Huerfano #156

Sample ID: MB-15674 MK		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS		Batch ID: R21650		RunNo: 21650						
Prep Date:		Analysis Date: 10/3/2014		SeqNo: 635822		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		95.8	80	120			

Sample ID: <b>LCS-15674 MK</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>R21650</b>		RunNo: <b>21650</b>							
Prep Date:	Analysis Date: <b>10/3/2014</b>		SeqNo: <b>635823</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

## Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1410140

RcptNo: 1

Received by/date: LM 10/03/14

Logged By: Anne Thorne 10/3/2014 7:40:00 AM *Anne Thorne*

Completed By: Anne Thorne 10/3/2014 *Anne Thorne*

Reviewed By: IO 10/03/14

### Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
(<2 or >12 unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

## Analysis Request