

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

DEC 21 2015

Form C-141  
Revised August 8, 2011

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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>Burlington Resources, a Wholly Owned Subsidiary of ConocoPhillips Company</b>	Contact <b>Lisa Hunter</b>
Address <b>3401 East 30<sup>th</sup> St, Farmington, NM</b>	Telephone No. <b>(505) 258-1607</b>
Facility Name: <b>San Juan 30-6 #405 S</b>	Facility Type: <b>Gas Well</b>

Surface Owner <b>Fee</b>	Mineral Owner <b>Federal (NM-03384)</b>	API No. <b>3003924589</b>
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## LOCATION OF RELEASE

Unit Letter <b>M</b>	Section <b>09</b>	Township <b>30N</b>	Range <b>06W</b>	Feet from the <b>790</b>	North/South Line <b>South</b>	Feet from the <b>845</b>	East/West Line <b>West</b>	County <b>Rio Arriba</b>
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Latitude 36.82805 Longitude -107.47397

## NATURE OF RELEASE

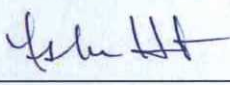

Type of Release <b>Hydrocarbon</b>	Volume of Release <b>Unknown</b>	Volume Recovered <b>None</b>
Source of Release <b>Below Grade Tank (BGT) Closure</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>November 6, 2014</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>N/A</b>	
By Whom? <b>N/A</b>	Date and Hour <b>N/A</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>N/A</b>	

If a Watercourse was Impacted, Describe Fully.\*  
**N/A**

Describe Cause of Problem and Remedial Action Taken.\*  
**Below-Grade Tank Closure activities with samples taken resulting in constituents exceeded standards outlined by 19.15.17.13 NMAC.**

Describe Area Affected and Cleanup Action Taken.\*  
**NMOCD action levels for releases are specified in NMOCD's Guidelines for Leaks, Spills and Releases and the release was assigned a ranking score of 10. Historical hydrocarbon impacted soil was found during the BGT closure for the subject well. The total excavation was approximately 16' x 10' x 10' in depth and 60 yds of soil was transported to IEI land farm and 60yds of clean soil was transported from Aztec Machine and placed in the excavation site. Samples were collected and analytical results are below applicable NMOCD action levels. No further work will be performed. The final 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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Lisa Hunter</b>	Approved by Environmental Specialist: 	
Title: <b>Field Environmental Specialist</b>	Approval Date: <b>11/13/2016</b>	Expiration Date:
E-mail Address: <b>Lisa.Hunter@cop.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>December 16, 2015</b> Phone: <b>(505) 258-1607</b>		

\* Attach Additional Sheets If Necessary

NLF 1601334131

40





May 29, 2015

Lisa Hunter  
ConocoPhillips  
San Juan Business Unit  
(505) 326-9786

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

**RE: Below Grade Tank Closure, Release Assessment, and Final Excavation Report  
San Juan 30-6 #405S  
Rio Arriba County, New Mexico**

Dear Ms. Hunter:

On November 6 and 7, 2014, Animas Environmental Services, LLC (AES) completed below grade tank (BGT) closure sampling, a release assessment, and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) San Juan 30-6 #405S located in Rio Arriba County, New Mexico. The release consisted of an unknown quantity of petroleum hydrocarbons from the onsite 120 barrel (bbl) BGT. An initial release assessment was completed on November 6, 2014, and the final excavation was completed by CoP contractors while AES was on location on November 7, 2014.

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## 1.0 Site Information

### 1.1 Location

Site Name – San Juan 30-6 #405S  
Location – SW¼ NW¼, Section 9, T30N, R6W, Rio Arriba County, New Mexico  
Well Head Latitude/Longitude – N36.82788, W107.47418  
BGT/Release Location Latitude/Longitude – N36.82805, 107.47397  
Land Jurisdiction – U.S. Bureau of Reclamation (BOR)  
Figure 1. Topographic Site Location Map  
Figure 2. Aerial Site Map, November 2014

### 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD

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

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

*Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 10 based on the following factors:

- **Depth to Groundwater:** A cathodic report form dated May 1991 for the San Juan 30-6 #403, located approximately 2,500 feet east and 60 feet lower in elevation, reported moisture at 140 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:** Navajo Reservoir is located approximately 890 feet northeast of the location. (10 points)

### 1.3 Assessment

#### 1.3.1 BGT Closure Assessment

AES was initially contacted by Steve Welch, CoP representative, on November 5, 2014, and on November 6, 2014, Stephanie Hinds and Emilee Skyles of AES traveled to the location. Soil sampling consisted of collection of five soil samples from below the BGT. Four samples were collected from the perimeter of the BGT footprint, one sample was collected from the center of the BGT footprint, and one sample was composited from the four perimeter samples and one center sample. Based on the field analytical results, a release was confirmed. Please note the BGT was 5 feet bgs.

#### 1.3.2 Release Assessment

On the same day, AES personnel completed the release assessment field work. The assessment included collection and field sampling of 10 soil samples from four soil borings (SB-1 through SB-4). Based on field sampling results, AES recommended excavation of the release area.

#### 1.3.3 Excavation Clearance

Based on field results and dialogue with CoP, AES returned on November 7, 2014, to the location to collect soil samples of the excavation. The field sampling activities included collection of an additional soil boring sample from SB-3, two discrete samples from an assessment trench (TH-1), as well as three confirmation composite soil samples (SC-1 through SC-3) from the east and south walls and the base of the excavation. An additional confirmation soil sample (SC-4) was composited from the samples collected from TH-1. The area of the final excavation measured approximately 16 feet by 10 by 10 feet in depth. Sample locations and final excavation extents are presented on Figure 3.



## 2.0 Soil Sampling

A total of 23 soil samples (S-1 through S-5, SB-1 through SB-4, and TH-1) and 5 composite samples (BGT SC-1 and SC-1 through SC-4) were collected during the BGT closure assessment, release assessment, and excavation clearance. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were analyzed for total petroleum hydrocarbon (TPH). All composite samples (BGT SC-1 and SC-1 through SC-4) collected were submitted for confirmation laboratory 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

Soil samples were also analyzed in the field for TPH 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 EPA Method 418.1*.

#### 2.1.3 Chlorides

Soil sample SC-1 was field screened for chlorides using Chloride Drop Count Titration with silver nitrate. Sampling and analysis methods followed procedures provided by Hach Company.

### 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 sample chain of custody records. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. Soil sample SB-3 and composite samples BGT SC-1 and SC-1 through SC-4 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.



In addition, soil sample BGT SC-1 was laboratory analyzed for:

- Chloride per USEPA Method 300.0.

## 2.3 Field and Laboratory Analytical Results

### 2.3.1 BGT Closure Assessment

On November 6, 2014, BGT closure field screening results for VOCs via OVM ranged from 0.0 ppm in S-1, S-3, SC-4, S-5, and SC-1 up to 0.7 ppm in S-2. Field TPH concentrations ranged from 93.1 mg/kg in S-5 up to greater than 2,500 mg/kg in S-1.

### 2.3.2 Release Assessment

On the same day, initial assessment field screening readings for VOCs via OVM were measured at 0.0 ppm in all samples. Field TPH concentrations ranged from less than 20.0 mg/kg in SB-3 to greater than 2,500 mg/kg in SB-4.

### 2.3.3 Excavation Clearance

On November 7, 2014, final excavation clearance field screening results for VOCs via OVM were recorded at 0.0 ppm in all samples. Field TPH concentrations ranged from less than 20.0 mg/kg in SC-3 and TH-1 to greater than 2,500 mg/kg in SC-1. Field screening VOCs and TPH results are summarized in Table 1 and on Figures 2 and 3. The AES field sampling reports are attached.

Table 1. Soil Field Sampling VOCs, TPH, and Chloride Results  
San Juan 30-6 #405S BGT Closure, Release Assessment and Final Excavation  
November 2014

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	TPH 418.1 (mg/kg)	Field Chlorides (mg/kg)
NMOCD Action Level*			NE/100	100/1,000	250/NE
S-1	11/6/14	0.5	0.0	>2,500	NA
S-2	11/6/14	0.5	0.7	96.7	NA
S-3	11/6/14	0.5	0.0	2,070	NA
S-4	11/6/14	0.5	0.0	371	NA
S-5	11/6/14	0.5	0.0	93.1	NA
BGT SC-1	11/6/14	0.5	0.0	NA	80
SB-1	11/6/14	6	0.0	145	NA
		8	0.0	613	NA
SB-2	11/6/14	5	0.0	24.4	NA



<b>Sample ID</b>	<b>Date Sampled</b>	<b>Sample Depth (ft bgs)</b>	<b>VOCs via OVM (ppm)</b>	<b>TPH 418.1 (mg/kg)</b>	<b>Field Chlorides (mg/kg)</b>
<b>NMOCD Action Level*</b>			<b>NE/100</b>	<b>100/1,000</b>	<b>250/NE</b>
SB-3	11/6/14	6	NA	52.6	NA
		8	NA	22.8	NA
		5	NA	<20.0	NA
	11/7/14	6	NA	22.0	NA
		8	0.0	35.5	NA
		10	0.0	20.1	NA
SB-4	11/6/14	6	NA	>2,500	NA
		8	NA	1,350	NA
SC-1	11/7/14	10	0.0	>2,500	NA
SC-2	11/7/14	5 to 10	0.0	449	NA
SC-3	11/7/14	5 to 10	0.0	<20.0	NA
SC-4	11/7/14	5 to 10	NA	NA	NA
TH-1	11/7/14	5	NA	<20.0	NA
		10	0.0	<20.0	NA

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) and *NMAC 19.15.17.13E*.

Laboratory analysis of sample BGT SC-1 was used to confirm field sampling results from the BGT closure. Laboratory analytical results reported benzene and total BTEX concentrations below laboratory detection limits, the TPH concentration as 640 mg/kg, and the chloride concentration as 9.2 mg/kg.

Laboratory analyses for SB-3 and SC-1 through SC-4 were used to confirm field sampling results from the final excavation extents. Benzene and total BTEX concentrations were reported below laboratory detection limits in all samples. Total TPH concentrations ranged from below laboratory detection limits in SB-3, SC-3, and SC-4, up to 200 mg/kg in SC-1. Results are summarized in Table 2 and included on Figures 2 and 3. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chlorides  
San Juan 30-6 #405S BGT Closure, Release Assessment, and Final Excavation  
November 2014



Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	Chlorides (mg/kg)
<b>NMOCD Action Level*</b>			<b>0.2/10</b>	<b>50</b>	<b>100/1,000</b>	<b>640</b>	<b>250/NE</b>
BGT SC-1	11/6/14	0.5	<0.048	<0.240	<4.8	640	9.2
SB-3	11/7/14	10	<0.046	<0.230	<4.6	<10	NA
SC-1	11/7/14	10	<0.034	<0.170	<3.4	200	NA
SC-2	11/7/14	5 to 10	<0.048	<0.241	<4.8	92	NA
SC-3	11/7/14	5 to 10	<0.046	<0.230	<4.6	<10	NA
SC-4	11/7/14	5 to 10	<0.049	<0.245	<4.9	<10	NA

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) and *NMAC 19.15.17.13E*.

### 3.0 Conclusions and Recommendations

On November 6 and 7, 2014, AES conducted a BGT closure and assessment of petroleum contaminated soils at the San Juan 30-6 #405S. NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. 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 10.

Field BGT closure sampling TPH results on November 6, 2014, were above the NMOCD action level of 100 mg/kg in S-1, S-3, and S-4, with greater than 2,500 mg/kg, 2,070 mg/kg, and 371 mg/kg, respectively. Laboratory results for BGT SC-1 were reported at 640 mg/kg for TPH. Chloride concentrations in BGT SC-1 were reported below the NMOCD action level of 250 mg/kg. Based on field concentrations, a release was confirmed.

On November 6, 2014, release assessment field sampling results above the NMOCD action level of 100 ppm VOCs and 1,000 mg/kg TPH were reported in SB-4. All VOC concentrations were reported at 0.0 ppm, and the highest TPH concentration was reported in SB-4 with concentrations greater than 2,500 mg/kg. Excavation of the release area was recommended.

On November 7, 2014, final excavation of the impacted area was completed. Field sampling results of the excavation extents showed that VOC concentrations were below

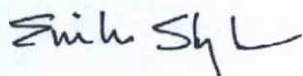


applicable NMOCD action levels for TH-1 and the final walls and base of the excavation. Field TPH concentrations were below the applicable NMOCD action level of 1,000 mg/kg for TH-1 and the final walls and base of the excavation, with the exception of SC-1 (base) which had a TPH concentration of greater than 2,500 mg/kg. However, laboratory analytical results reported benzene, total BTEX, and TPH (as GRO/DRO) concentrations in all samples below NMOCD action levels.

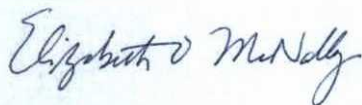
Based on the final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the San Juan 30-6 #405S, VOCs, benzene, total BTEX, and TPH concentrations were below the applicable NMOCD action levels for the final sidewalls and base of the excavation. No further 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,



Emilee Skyles  
Staff Geologist



Elizabeth McNally, PE

Attachments:

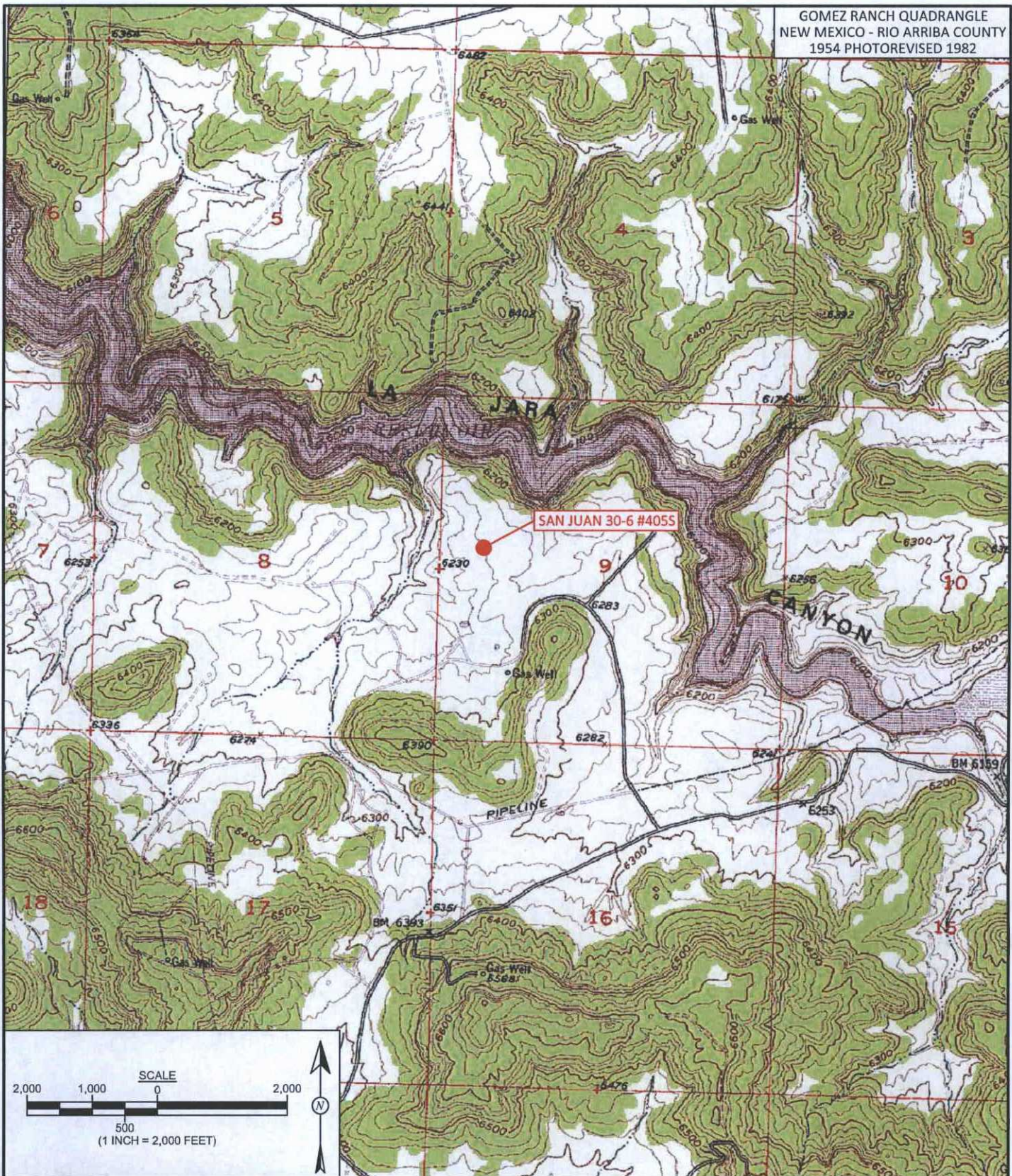
- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, November 2014
- Figure 3. Release Assessment and Excavation Sample Locations and Results, November 2014
- AES Field Sampling Report 110614—BGT Closure
- AES Field Sampling Report 110614—Release Assessment
- AES Field Sampling Report 110714
- Hall Laboratory Analytical Report 1411329
- Hall Laboratory Analytical Report 1411337
- Hall Laboratory Analytical Report 1411340



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Projects\ConocoPhillips\SJ 30-6 #405S\San Juan 30-6 #405S BGT Closure Assessment and Excavation  
Report 052915.docx



GOMEZ RANCH QUADRANGLE  
NEW MEXICO - RIO ARriba COUNTY  
1954 PHOTOREVISED 1982



**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**

ConocoPhillips  
SAN JUAN 30-6 #4055  
SW¼ NW¼, SECTION 9, T30N, R6W  
RIO ARriba COUNTY, NEW MEXICO  
N36.82788, W107.47418

**DRAWN BY:**

S. Glasses

**DATE DRAWN:**

November 07, 2014

**REVISIONS BY:**

C. Lameman

**DATE REVISED:**

November 07, 2014

**CHECKED BY:**

E. Skyles

**DATE CHECKED:**

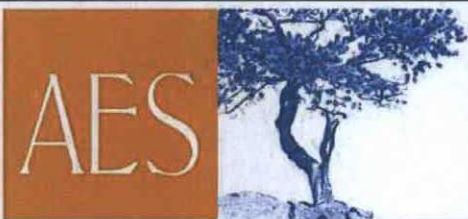
November 07, 2014

**APPROVED BY:**

E. McNally

**DATE APPROVED:**

November 07, 2014



Animas Environmental Services, LLC



LEGEND

● SAMPLE LOCATIONS

Field Sampling Results

Sample ID	Date	OVM-PID (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL		--	100	250
S-1	11/6/14	0.0	>2,500	NA
S-2	11/6/14	0.7	96.7	NA
S-3	11/6/14	0.0	2,070	NA
S-4	11/6/14	0.0	371	NA
S-5	11/6/14	0.0	93.1	NA
BGT SC-1	11/6/14	0.0	NA	80

BGT SC-1 IS A 5-POINT COMPOSITE SAMPLE OF S-1 THROUGH S-5. NA - NOT ANALYZED

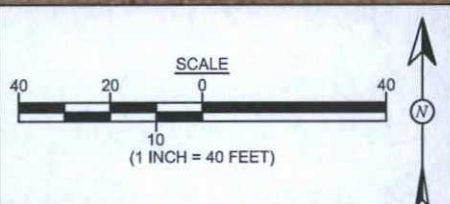
Laboratory Analytical Results

Sample ID	Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL		0.2	50	100	250	
BGT SC-1	11/6/14	<0.048	<0.240	<4.8	640	9.2

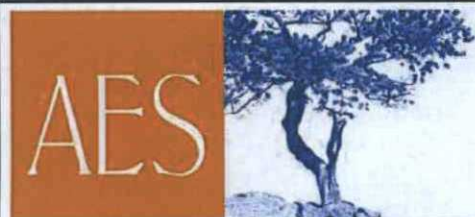
SAMPLE WAS ANALYZED PER USEPA METHOD 8021B, 8015D AND 300.0.

SAN JUAN 30-6 #4055 MONUMENT

BGT - N36.82805  
W107.47397



AERIAL SOURCE: © 2014 GOOGLE EARTH PRO, AERIAL DATE: MAY 2, 2013



Animas Environmental Services, LLC

DRAWN BY:

S. Glasses

DATE DRAWN:

November 07, 2014

REVISIONS BY:

C. Lameman

DATE REVISED:

November 07, 2014

CHECKED BY:

E. Skyles

DATE CHECKED:

November 07, 2014

APPROVED BY:

E. McNally

DATE APPROVED:

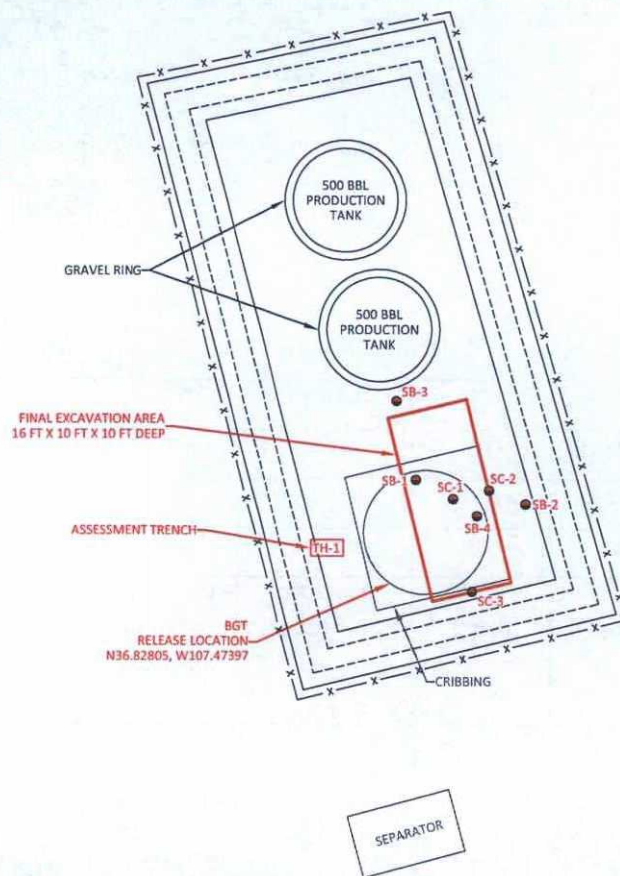
November 07, 2014

FIGURE 2

AERIAL SITE MAP  
BELOW GRADE TANK CLOSURE  
NOVEMBER 2014

ConocoPhillips  
SAN JUAN 30-6 #4055  
SW¼ NW¼, SECTION 9, T30N, R6W  
RIO ARriba COUNTY, NEW MEXICO  
N36.82788, W107.47418





SAN JUAN 30-6 #4055 MONUMENT

Field Sampling Results				
Sample ID	Date	Depth (ft)	OVMPID (ppm)	TPH (mg/kg)
		<b>NMOC ACTION LEVEL</b>		
			100	1,000
SB-1	11/6/2014	6	0.0	145
		8	0.0	613
SB-2	11/6/14	5	0.0	24.4
		6	NA	52.6
SB-3	11/6/14	5	NA	<20.0
		6	NA	22.0
SB-4	11/6/2014	8	NA	1,350
		10	0.0	20.1
SC-1	11/7/14	6	NA	>2,500
		8	NA	1,350
SC-2	11/7/14	5 to 10	0.0	449
		5 to 10	0.0	<20.0
SC-3	11/7/14	5 to 10	NA	NA
		5	NA	<20.0
TH-1	11/7/14	10	0.0	<20.0
		10	0.0	<20.0

SC-1 THROUGH SC-3 WERE COMPOSITE SAMPLES. SC-4 IS A COMPOSITE OF TH-1 AT 5 AND 10 FEET.  
NA - NOT ANALYZED

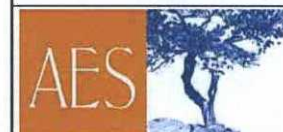
Laboratory Analytical Results						
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
		<b>NMOC ACTION LEVEL</b>				
			10	50	1,000	
SB-3	11/7/14	10	<0.046	<0.230	<4.6	<10
SC-1	11/7/14	10	<0.034	<0.170	<3.4	200
SC-2	11/7/14	5 to 10	<0.048	<0.241	<4.8	92
SC-3	11/7/14	5 to 10	<0.046	<0.230	<4.6	<10
SC-4	11/7/14	5 to 10	<0.049	<0.245	<4.9	<10

SC-1 THROUGH SC-3 WERE COMPOSITE SAMPLES. SC-4 IS A COMPOSITE OF TH-1 AT 5 AND 10 FEET. ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B AND 8015D.

FIGURE 3

RELEASE ASSESSMENT AND EXCAVATION SAMPLE LOCATIONS AND RESULTS  
NOVEMBER 2014

ConocoPhillips  
SAN JUAN 30-6 #4055  
SW 1/4, NW 1/4, SECTION 9, T30N, R6W  
RIO ARriba COUNTY, NEW MEXICO  
N36.82788, W107.47418



Animas Environmental Services, LLC

**DRAWN BY:**  
C. Lameman

**DATE DRAWN:**  
November 7, 2014

**REVISIONS BY:**  
C. Lameman

**DATE REVISED:**  
November 7, 2014

**CHECKED BY:**  
E. Skyles

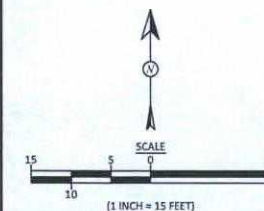
**DATE CHECKED:**  
November 7, 2014

**APPROVED BY:**  
E. McNally

**DATE APPROVED:**  
November 7, 2014

LEGEND

- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- x — FENCE





# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: San Juan 30-6 #405S

Date: 11/6/2014

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field Chloride (mg/kg)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
S-1	11/6/2014	12:50	North	0.0	NA	>2,500	13:22	20.0	1	EMS
S-2	11/6/2014	12:52	South	0.7	NA	96.7	13:24	20.0	1	EMS
S-3	11/6/2014	12:54	East	0.0	NA	2,075	13:27	20.0	1	EMS
S-4	11/6/2014	12:56	West	0.0	NA	371	13:29	20.0	1	EMS
S-5	11/6/2014	12:58	Center	0.0	NA	93.1	13:30	20.0	1	EMS
SC-1	11/6/2014	13:20	Composite	0.0	80	Not Analyzed for TPH				

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

\*Field TPH concentrations recorded may be below PQL.

Field Chloride - Quantab Chloride Titrators or Drop Count

Titration with Silver Nitrate

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

*Erin Skelton*

# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: San Juan 30-6 #405S

Date: 11/6/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 6'	11/6/2014	14:15	0.0	145	14:35	20.0	1	SAH
SB-1 @ 8'	11/6/2014	14:18	0.0	613	14:38	20.0	1	SAH
SB-2 @ 5'	11/6/2014	14:22	0.0	24.4	14:42	20.0	1	SAH
SB-2 @ 6'	11/6/2014	15:10	NA	52.6	15:25	20.0	1	SAH
SB-2 @ 8'	11/6/2014	15:48	NA	22.8	16:02	20.0	1	SAH
SB-3 @ 5'	11/6/2014	14:44	NA	19.5	15:04	20.0	1	SAH
SB-3 @ 6'	11/6/2014	14:48	NA	22.0	15:09	20.0	1	SAH
SB-3 @ 8'	11/6/2014	14:52	0.0	35.5	15:17	20.0	1	SAH
SB-4 @ 6'	11/6/2014	14:55	NA	>2,500	15:14	20.0	1	SAH
SB-4 @ 8'	11/6/2014	15:25	NA	1,347	15:41	20.0	1	SAH

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

\*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: *Stephanie A. Hinds*



# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: San Juan 30-6 #405S

Date: 11/7/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-3 @ 10'	11/7/2014	12:45	0.0	20.1	13:07	20.0	1	SAH
SC-1	11/7/2014	11:30	0.0	>2,500	11:42	20.0	1	SAH
SC-2	11/7/2014	12:15	0.0	449	12:29	20.0	1	SAH
SC-3	11/7/2014	12:22	0.0	9.3	12:39	20.0	1	SAH
SC-4	11/7/2014	12:50	NA	Not Analyzed for TPH				
TH-1 @ 5'	11/7/2014	12:32	NA	16.1	12:49	20.0	1	SAH
TH-1 @ 10'	11/7/2014	12:36	0.0	17.4	12:51	20.0	1	SAH

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

\*TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

*Stephanie A. Hinds*





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)

November 12, 2014

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

RE: COP SJ 30-6 #405S

OrderNo.: 1411329

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/8/2014 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,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 1411329

Date Reported: 11/12/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-1

Project: COP SJ 30-6 #405S

Collection Date: 11/7/2014 11:30:00 AM

Lab ID: 1411329-001

Matrix: SOIL

Received Date: 11/8/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	200	100		mg/Kg	10	11/10/2014 2:14:03 PM	16305
Surr: DNOP	0	63.5-128	S	%REC	10	11/10/2014 2:14:03 PM	16305
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	11/10/2014 10:15:56 AM	R22439
Surr: BFB	97.3	80-120		%REC	1	11/10/2014 10:15:56 AM	R22439
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	11/10/2014 10:15:56 AM	R22439
Toluene	ND	0.034		mg/Kg	1	11/10/2014 10:15:56 AM	R22439
Ethylbenzene	ND	0.034		mg/Kg	1	11/10/2014 10:15:56 AM	R22439
Xylenes, Total	ND	0.068		mg/Kg	1	11/10/2014 10:15:56 AM	R22439
Surr: 4-Bromofluorobenzene	123	80-120	S	%REC	1	11/10/2014 10:15:56 AM	R22439

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#: 1411329

12-Nov-14

Client: Animas Environmental

Project: COP SJ 30-6 #405S

Sample ID	MB-16305	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	16305	RunNo:	22412					
Prep Date:	11/10/2014	Analysis Date:	11/10/2014	SeqNo:	660791	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.8		10.00		77.7	63.5	128			

Sample ID	LCS-16305	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	16305	RunNo:	22412					
Prep Date:	11/10/2014	Analysis Date:	11/10/2014	SeqNo:	660792	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.8	68.6	130			
Surr: DNOP	3.6		5.000		71.4	63.5	128			

## 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#: 1411329

12-Nov-14

Client: Animas Environmental

Project: COP SJ 30-6 #405S

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R22439	RunNo:	22439					
Prep Date:		Analysis Date:	11/10/2014	SeqNo:	661771	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		88.4	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R22439	RunNo:	22439					
Prep Date:		Analysis Date:	11/10/2014	SeqNo:	661772	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.4	65.8	139			
Surr: BFB	940		1000		94.1	80	120			

Sample ID	1411329-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-1	Batch ID:	R22439	RunNo:	22439					
Prep Date:		Analysis Date:	11/10/2014	SeqNo:	661797	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	3.4	17.10	0	88.3	71.8	132			
Surr: BFB	710		684.0		104	80	120			

Sample ID	1411329-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-1	Batch ID:	R22439	RunNo:	22439					
Prep Date:		Analysis Date:	11/10/2014	SeqNo:	661806	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	3.4	17.10	0	87.7	71.8	132	0.682	20	
Surr: BFB	630		684.0		91.8	80	120	0	0	

## 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#: 1411329

12-Nov-14

Client: Animas Environmental

Project: COP SJ 30-6 #405S

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: R22439			RunNo: 22439					
Prep Date:		Analysis Date: 11/10/2014			SeqNo: 661844		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	1.1		1.000		107	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R22439	RunNo:	22439					
Prep Date:		Analysis Date:	11/10/2014	SeqNo:	661845	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	106	80	120			
Toluene	1.1	0.050	1.000	0	108	80	120			
Ethylbenzene	1.1	0.050	1.000	0	111	80	120			
Xylenes, Total	3.4	0.10	3.000	0	112	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	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





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

## Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1411329

RcptNo: 1

Received by/date: AF 11/08/14

Logged By: Anne Thorne 11/8/2014 10:20:00 AM

Completed By: Anne Thorne 11/10/2014

Reviewed By: AF 11/10/14

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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. $^{\circ}\text{C}$	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	4.3	Good	Yes			



Turn-Around Time:

☐ Standard ☒ Rush same day

Project Name: COP SJ 30-6 #4055

Project #:

**Project Manager:**

E. Skyles

☒ Standard ☐ Level 4 (Full Validation)

## Accreditation

Sampler: E. Skyles

☐ NELAP      ☐ Other

On Ice: ☒ Yes ☐ No

☐ EDD (Type)

Sample Temperature: 43°C

Date: 7/1/14	Time: 1610	Relinquished by: [Signature]	Received by: Christine Waack	Date: 7/1/14	Time: 1610	Remarks: Bill to Conoco Phillips WD#: 10367096 AREA: 8 ORDERED BY: STEVE?
Date: 11/7/14	Time: 1740	Relinquished by: [Signature]	Received by: [Signature]	Date: 11/8/14	Time: 10:20	



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

		-X	BTEX + MTBE + TMB's (8021)
			BTEX + MTBE + TPH (Gas only)
		X	TPH 8015B ( <del>GRO/DRO</del> ) MRE)
			TPH (Method 418.1)
			EDB (Method 504.1)
			PAH's (8310 or 8270 SIMS)
			RCRA 8 Metals
			Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )
			8081 Pesticides / 8082 PCB's
			8260B (VOA)
			8270 (Semi-VOA)
			Air Bubbles (Y or N)

Air Bubbles (Y or N)

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.





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)

November 13, 2014

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

RE: CoP SJ 30-6 #405 S

OrderNo.: 1411337

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/8/2014 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,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 1411337

Date Reported: 11/13/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: BGT SC-1

Project: CoP SJ 30-6 #405 S

Collection Date: 11/6/2014 1:20:00 PM

Lab ID: 1411337-001

Matrix: SOIL

Received Date: 11/8/2014 10:20:00 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)	640	99		mg/Kg	10	11/12/2014 10:10:25 PM	16308
Surr: DNOP		-		%REC	10	11/12/2014 10:10:25 PM	16308
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/11/2014 6:19:07 PM	16320
Surr: BFB	92.6	80-120		%REC	1	11/11/2014 6:19:07 PM	16320
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	11/11/2014 6:19:07 PM	16320
Toluene	ND	0.048		mg/Kg	1	11/11/2014 6:19:07 PM	16320
Ethylbenzene	ND	0.048		mg/Kg	1	11/11/2014 6:19:07 PM	16320
Xylenes, Total	ND	0.096		mg/Kg	1	11/11/2014 6:19:07 PM	16320
Surr: 4-Bromofluorobenzene	96.9	80-120		%REC	1	11/11/2014 6:19:07 PM	16320
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	9.2	7.5		mg/Kg	5	11/11/2014 12:44:07 PM	16341

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		



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411337

13-Nov-14

Client: Animas Environmental

Project: CoP SJ 30-6 #405 S

Sample ID	MB-16341	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	16341	RunNo:	22478					
Prep Date:	11/11/2014	Analysis Date:	11/11/2014	SeqNo:	662481	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-16341	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	16341	RunNo:	22478					
Prep Date:	11/11/2014	Analysis Date:	11/11/2014	SeqNo:	662482	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	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#: 1411337

13-Nov-14

Client: Animas Environmental

Project: CoP SJ 30-6 #405 S

Sample ID	MB-16308	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	16308	RunNo:	22457					
Prep Date:	11/10/2014	Analysis Date:	11/11/2014	SeqNo:	661933	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.2		10.00		91.9	63.5	128			

Sample ID	LCS-16308	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	16308	RunNo:	22457					
Prep Date:	11/10/2014	Analysis Date:	11/11/2014	SeqNo:	661934	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	68.6	130			
Surr: DNOP	4.0		5.000		80.7	63.5	128			

Sample ID	MB-16334	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	16334	RunNo:	22488					
Prep Date:	11/11/2014	Analysis Date:	11/12/2014	SeqNo:	663176	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		96.2	63.5	128			

Sample ID	LCS-16334	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	16334	RunNo:	22488					
Prep Date:	11/11/2014	Analysis Date:	11/12/2014	SeqNo:	663181	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		93.2	63.5	128			

## 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#: 1411337

13-Nov-14

Client: Animas Environmental

Project: CoP SJ 30-6 #405 S

Sample ID	MB-16320	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	16320	RunNo:	22464					
Prep Date:	11/10/2014	Analysis Date:	11/11/2014	SeqNo:	662399	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.1	80	120			

Sample ID	LCS-16320	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	16320	RunNo:	22464					
Prep Date:	11/10/2014	Analysis Date:	11/11/2014	SeqNo:	662400	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	65.8	139			
Surr: BFB	1000		1000		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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411337

13-Nov-14

Client: Animas Environmental

Project: CoP SJ 30-6 #405 S

Sample ID	MB-16320		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	16320		RunNo:	22464			
Prep Date:	11/10/2014		Analysis Date:	11/11/2014		SeqNo:	662527		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	0.97		1.000		97.3	80	120			

Sample ID	LCS-16320		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	16320		RunNo:	22464			
Prep Date:	11/10/2014		Analysis Date:	11/11/2014		SeqNo:	662528		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	99.7	80	120			
Toluene	0.98	0.050	1.000	0	97.6	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.3	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.7	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	1411337-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	BGT SC-1		Batch ID:	16320		RunNo:	22464			
Prep Date:	11/10/2014		Analysis Date:	11/11/2014		SeqNo:	662530		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.048	0.9588	0	112	77.4	142			
Toluene	1.1	0.048	0.9588	0.007753	111	77	132			
Ethylbenzene	1.1	0.048	0.9588	0.01482	115	77.6	134			
Xylenes, Total	3.3	0.096	2.876	0	114	77.4	132			
Surr: 4-Bromofluorobenzene	1.0		0.9588		106	80	120			

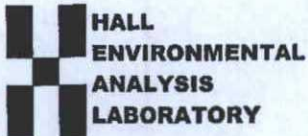
Sample ID	1411337-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	BGT SC-1		Batch ID:	16320		RunNo:	22464			
Prep Date:	11/10/2014		Analysis Date:	11/11/2014		SeqNo:	662531		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.048	0.9597	0	101	77.4	142	9.64	20	
Toluene	0.96	0.048	0.9597	0.007753	99.4	77	132	11.1	20	
Ethylbenzene	1.0	0.048	0.9597	0.01482	103	77.6	134	10.6	20	
Xylenes, Total	3.0	0.096	2.879	0	103	77.4	132	10.5	20	
Surr: 4-Bromofluorobenzene	1.0		0.9597		105	80	120	0	0	

## 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





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

## Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1411337

RcptNo: 1

Received by/date:

AF

11/08/14

Logged By: Lindsay Mangin

11/8/2014 10:20:00 AM

*Lindsay Mangin*

Completed By: Lindsay Mangin

11/10/2014 9:03:12 AM

*Lindsay Mangin*

Reviewed By:

CS

11/10/14

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:   
Adjusted?   
( $<2$  or  $>12$  unless noted)
- 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: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.3	Good	Yes			









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)

November 13, 2014

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

RE: CoP SJ 30-6 #405 S

OrderNo.: 1411340

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 4 sample(s) on 11/8/2014 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", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1411340

Date Reported: 11/13/2014

CLIENT: Animas Environmental

Client Sample ID: SC-2

Project: CoP SJ 30-6 #405 S

Collection Date: 11/7/2014 12:15:00 PM

Lab ID: 1411340-001

Matrix: SOIL

Received Date: 11/8/2014 10:20:00 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)	92	9.8		mg/Kg	1	11/12/2014 2:19:39 PM	16308
Surr: DNOP	124	63.5-128		%REC	1	11/12/2014 2:19:39 PM	16308
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/12/2014 2:53:42 AM	16323
Surr: BFB	93.2	80-120		%REC	1	11/12/2014 2:53:42 AM	16323
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	11/12/2014 2:53:42 AM	16323
Toluene	ND	0.048		mg/Kg	1	11/12/2014 2:53:42 AM	16323
Ethylbenzene	ND	0.048		mg/Kg	1	11/12/2014 2:53:42 AM	16323
Xylenes, Total	ND	0.097		mg/Kg	1	11/12/2014 2:53:42 AM	16323
Surr: 4-Bromofluorobenzene	97.2	80-120		%REC	1	11/12/2014 2:53:42 AM	16323

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		



## Analytical Report

Lab Order 1411340

Date Reported: 11/13/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-3

Project: CoP SJ 30-6 #405 S

Collection Date: 11/7/2014 12:22:00 PM

Lab ID: 1411340-002

Matrix: SOIL

Received Date: 11/8/2014 10:20:00 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	11/11/2014 9:01:50 PM	16308
Surr: DNOP	131	63.5-128	S	%REC	1	11/11/2014 9:01:50 PM	16308
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/12/2014 3:22:16 AM	16323
Surr: BFB	93.3	80-120		%REC	1	11/12/2014 3:22:16 AM	16323
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	11/12/2014 3:22:16 AM	16323
Toluene	ND	0.046		mg/Kg	1	11/12/2014 3:22:16 AM	16323
Ethylbenzene	ND	0.046		mg/Kg	1	11/12/2014 3:22:16 AM	16323
Xylenes, Total	ND	0.092		mg/Kg	1	11/12/2014 3:22:16 AM	16323
Surr: 4-Bromofluorobenzene	96.4	80-120		%REC	1	11/12/2014 3:22:16 AM	16323

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		

## Analytical Report

Lab Order 1411340

Date Reported: 11/13/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-4

Project: CoP SJ 30-6 #405 S

Collection Date: 11/7/2014 12:50:00 PM

Lab ID: 1411340-003

Matrix: SOIL

Received Date: 11/8/2014 10:20:00 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	11/11/2014 9:23:36 PM	16308
Surr: DNOP	132	63.5-128	S	%REC	1	11/11/2014 9:23:36 PM	16308
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/12/2014 3:50:50 AM	16323
Surr: BFB	93.1	80-120		%REC	1	11/12/2014 3:50:50 AM	16323
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	11/12/2014 3:50:50 AM	16323
Toluene	ND	0.049		mg/Kg	1	11/12/2014 3:50:50 AM	16323
Ethylbenzene	ND	0.049		mg/Kg	1	11/12/2014 3:50:50 AM	16323
Xylenes, Total	ND	0.098		mg/Kg	1	11/12/2014 3:50:50 AM	16323
Surr: 4-Bromofluorobenzene	95.7	80-120		%REC	1	11/12/2014 3:50:50 AM	16323

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		



## Analytical Report

Lab Order 1411340

Date Reported: 11/13/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SB-3 @ 10'

Project: CoP SJ 30-6 #405 S

Collection Date: 11/7/2014 12:45:00 PM

Lab ID: 1411340-004

Matrix: SOIL

Received Date: 11/8/2014 10:20:00 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	11/11/2014 9:44:57 PM	16308
Surr: DNOP	136	63.5-128	S	%REC	1	11/11/2014 9:44:57 PM	16308
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/12/2014 4:19:22 AM	16323
Surr: BFB	93.5	80-120		%REC	1	11/12/2014 4:19:22 AM	16323
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	11/12/2014 4:19:22 AM	16323
Toluene	ND	0.046		mg/Kg	1	11/12/2014 4:19:22 AM	16323
Ethylbenzene	ND	0.046		mg/Kg	1	11/12/2014 4:19:22 AM	16323
Xylenes, Total	ND	0.092		mg/Kg	1	11/12/2014 4:19:22 AM	16323
Surr: 4-Bromofluorobenzene	96.1	80-120		%REC	1	11/12/2014 4:19:22 AM	16323

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		

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411340

13-Nov-14

Client: Animas Environmental

Project: CoP SJ 30-6 #405 S

Sample ID	MB-16308	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	16308	RunNo:	22457					
Prep Date:	11/10/2014	Analysis Date:	11/11/2014	SeqNo:	661933	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.2		10.00		91.9	63.5	128			

Sample ID	LCS-16308	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	16308	RunNo:	22457					
Prep Date:	11/10/2014	Analysis Date:	11/11/2014	SeqNo:	661934	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	68.6	130			
Surr: DNOP	4.0		5.000		80.7	63.5	128			

Sample ID	MB-16334	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	16334	RunNo:	22488					
Prep Date:	11/11/2014	Analysis Date:	11/12/2014	SeqNo:	663176	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		96.2	63.5	128			

Sample ID	LCS-16334	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	16334	RunNo:	22488					
Prep Date:	11/11/2014	Analysis Date:	11/12/2014	SeqNo:	663181	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		93.2	63.5	128			

## 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#: 1411340

13-Nov-14

Client: Animas Environmental

Project: CoP SJ 30-6 #405 S

Sample ID	MB-16320	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	16320	RunNo:	22464					
Prep Date:	11/10/2014	Analysis Date:	11/11/2014	SeqNo:	662399	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		1000		92.1	80	120			

Sample ID	LCS-16320	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	16320	RunNo:	22464					
Prep Date:	11/10/2014	Analysis Date:	11/11/2014	SeqNo:	662400	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	80	120			

Sample ID	MB-16323	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	16323	RunNo:	22464					
Prep Date:	11/10/2014	Analysis Date:	11/11/2014	SeqNo:	662409	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.0	80	120			

Sample ID	LCS-16323	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	16323	RunNo:	22464					
Prep Date:	11/10/2014	Analysis Date:	11/11/2014	SeqNo:	662410	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	65.8	139			
Surr: BFB	1000		1000		101	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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411340

13-Nov-14

Client: Animas Environmental

Project: CoP SJ 30-6 #405 S

Sample ID	MB-16320		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	16320		RunNo:	22464			
Prep Date:	11/10/2014		Analysis Date:	11/11/2014		SeqNo:	662527		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.97		1.000		97.3	80	120			

Sample ID	LCS-16320		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	16320		RunNo:	22464			
Prep Date:	11/10/2014		Analysis Date:	11/11/2014		SeqNo:	662528		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	MB-16323		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	16323		RunNo:	22464			
Prep Date:	11/10/2014		Analysis Date:	11/11/2014		SeqNo:	662537		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	0.98		1.000		98.3	80	120			

Sample ID	LCS-16323		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	16323		RunNo:	22464			
Prep Date:	11/10/2014		Analysis Date:	11/11/2014		SeqNo:	662538		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	91.2	80	120			
Toluene	0.91	0.050	1.000	0	91.1	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.7	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.0	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: 1411340

RcptNo: 1

Received by/date:

AF

11/08/14

Logged By: Lindsay Mangin

11/8/2014 10:20:00 AM

*Lindsay Mangin*

Completed By: Lindsay Mangin

11/10/2014 9:42:28 AM

*Lindsay Mangin*

Reviewed By:

CS

11/10/14

### 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: ☐ eMail ☐ Phone ☐ Fax ☐ 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	4.3	Good	Yes			



## |Turn-Around Time:

☒ Standard ☐ Rush

Project Name: CIP ST 30-w #405 S

Project #:

Project Manager:

E. Skyles

Sampler: E. Skyles

On Ice: ☒ Yes ☐ No

Sample Temperature:  $4.3^{\circ}\text{C}$ 

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[illegible]

Date: 11/7/14 Time: 1610

Date Time  
11/8/19 10:20

Ordered by: Steve

Area: 8

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.