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

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 **Burlington Resources, a Wholly Owned Subsidiary of ConocoPhillips Company**	Contact **Ashley Maxwell**
Address 3401 East 30th St, Farmington, NM	Telephone No.(505) 324-5169
Facility Name: **San Juan 27-5 Unit 39**	Facility Type: **Gas Well**

Surface Owner **Federal**	Mineral Owner **Federal**	API No. **3003907148** **SF-079491**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	**12**	**27N**	**05W**	**925'**	**South**	**1810'**	**West**	**Rio Arriba**

Latitude 36.58327 Longitude -107.31177

NATURE OF RELEASE

Type of Release **Produced Fluids**	Volume of Release **Unknown**	Volume Recovered **48 yds³**
Source of Release **Unknown Production Equipment**	Date and Hour of Occurrence **7/11/2012**	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	RCVD DEC 6 '12 OIL CONS. DIV. DIST. 3
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

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

Describe Cause of Problem and Remedial Action Taken.*
Discovery of historical hydrocarbon impacted soil.

Describe Area Affected and Cleanup Action Taken.*
Excavation was required based on NMOCD Guidelines for Remediation of Leaks, Spills and Releases. The excavation was 20'X20'X5' and 48 yds³ of soil was transported to a third party land farm. Excavation and confirmation sampling occurred. Analytical results were below the regulatory standards set forth by NMOCD action levels; therefore no further action is needed.

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:	OIL CONSERVATION DIVISION
Printed Name: **Ashley Maxwell**	Approved by Environmental Specialist: Jonathan D. Kelly
Title: Field Environmental Specialist	Approval Date: 2/11/2013 Expiration Date:
E-mail Address: ashley.p.wethington@conocophillips.com	Conditions of Approval: Attached ☐
Date: December 3, 2012 Phone: 505-324-5169	

* Attach Additional Sheets If Necessary

nJK1304242335

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3274

November 26, 2012

Ashley Maxwell
ConocoPhillips
San Juan Business Unit
Office 216-2
5525 Hwy 64
Farmington, New Mexico 87401

RE: Surface Depression Assessment and Excavation Report
San Juan 27-5 #39
Rio Arriba County, New Mexico

Dear Ms. Maxwell:

On May 24 and July 13, 2012, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) San Juan 27-5 #39, located in Rio Arriba County, New Mexico. A historical release was encountered within the extents of a surface depression at the location. The initial release assessment was completed by AES on May 24, 2012. The final excavation was completed by CoP contractors while AES was on location on July 13, 2012.

1.0 Site Information

1.1 Location

Site Name – San Juan 27-5 #39
Legal Description – SE¼ SW¼, Section 12, T27N, R5W, Rio Arriba County, New Mexico
Well Latitude/Longitude – N36.58378 and W107.31203, respectively
Surface Depression Latitude/Longitude – N36.58359 and W107.31194, respectively
Land Jurisdiction – Bureau of Land Management (BLM)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, May 2012

1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a Cathodic Protection Report from January 1996 for the San Juan 27-5 #39 reported the depth to groundwater at the location as 110 feet below ground surface (bgs). The New Mexico Office of the State Engineer (NMOSE) database was

reviewed for nearby water wells, and no registered water wells were reported to be located within 1,000 feet of the location. Additionally, Google Earth and the New Mexico Tech Petroleum Recovery Research Center online mapping tool (http://ford.nmt.edu/react/project.html) were accessed to aid in the identification of downgradient surface water.

Once on site, AES personnel further assessed the ranking using topographical interpretation, Global Positioning System (GPS) elevation readings, and visual reconnaissance. AES personnel concluded that depth to groundwater at the site was greater than 100 feet bgs. A tributary to the wash in Tecolote Canyon is located approximately 180 feet east of the location. The site location has been assigned a ranking score of 20 per the NMOCD *Guidelines for Leaks, Spills, and Releases* (1993).

1.3 Release Assessment and Confirmation Sampling

AES was initially contacted by Ashley Maxwell, CoP representative, on May 23, 2012 to complete an assessment of a surface depression at the location. On May 24, 2012, Deborah Watson and Zachary Trujillo of AES mobilized to the location. While on location, based on visual observations and field screening results, AES determined that petroleum impacted soils were located within the area of the surface depression. Therefore, AES proceeded with release assessment field work on the same day. The assessment included collection and field screening of 12 soil samples from six test holes (TH-1 through TH-6) collected within the surface depression. Test holes were terminated on sandstone. Based on the field screening results and laboratory analytical results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On July 13, 2012, AES returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collection of four confirmation soil samples (SC-1 through SC-4) of the walls and base of the excavation. Sample SC-5 was a composite of SC-1 through SC-4. The final excavation was approximately 26 feet by 19 feet by 2 to 6 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

2.0 Soil Sampling

A total of 10 soil samples and 5 composite samples (SC-1 through SC-5) were collected during the initial assessment and confirmation sampling in May and July 2012. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). Six of the soil samples collected during the initial assessment (TH-1 through TH-6) and three

composite soil samples (SC-2, SC-3, and SC-5) collected during the confirmation sampling were submitted for laboratory analysis.

2.1 Field Screening

2.1.1 Volatile Organic Compounds

A portion of each sample was utilized for field screening of VOC vapors 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 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 samples were 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 nine 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 TH-1 through TH-6 were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8260B;
- Total petroleum hydrocarbons (TPH) for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B;

Composite soil samples SC-2 and SC-3 were also analyzed for TPH as GRO/DRO per USEPA Method 8015B. Sample SC-5 was analyzed for BTEX per USEPA Method 8021B and for chloride per USEPA Method 300.0.

2.3 Field and Laboratory Analytical Results

On May 24, 2012, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 1.8 ppm in TH-6 up to 3,295 ppm in TH-2. On July 13, 2012,

final excavation field screening results for VOCs via OVM ranged from 0.6 ppm in SC-2 up to 5.3 ppm in SC-4. Field TPH concentrations ranged from 59.3 mg/kg in SC-1 up to 135 mg/kg in SC-2. Field screening results are summarized in Table 1 and presented on Figures 3 and 4. The AES field screening reports are attached.

Table 1. Field Screening VOCs, TPH, and Chloride Results
SJ 27-5 #39 Surface Depression Assessment and Excavation
May and July 2012

Sample ID	*Date Sampled*	*Sample Location*	*Sample Depth (ft bgs)*	*VOCs via OVM (ppm)*	*Field TPH (mg/kg)*	*Field Chlorides (mg/kg)*
*NMOCD Action Level**				*100*	*100*	*250*
TH-1	5/24/12	Center	0.5	56.8	NA	NA
			1	**1,961**	NA	NA
			1.5	**1,950**	NA	NA
TH-2	5/24/12	West	0.5	**3,295**	NA	NA
			1	**408**	NA	NA
TH-3	5/24/12	North	0.5	59.1	NA	NA
			1	49.7	NA	NA
TH-4	5/24/12	East	0.5	26.7	NA	NA
			1	23.6	NA	NA
TH-5	5/24/12	South	0.5	7.7	NA	NA
TH-6	5/24/12	West	0.5	2.0	NA	NA
			1	1.8	NA	NA
SC-1	7/13/12	North Wall	1 to 3	0.8	59.3	NA
SC-2	7/13/12	Southeast Wall	1 to 6	0.6	**135**	NA
SC-3	7/13/12	Southwest Wall	1 to 6	1.2	**127**	NA
SC-4	7/13/12	Base	2 to 6	5.3	63.4	<20

NA – Not Analyzed
*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993)

Laboratory analytical results for TH-1 through TH-6 reported benzene concentrations below laboratory detection limits. Total BTEX concentrations ranged from 0.10 mg/kg (TH-3) up to 170 mg/kg (TH-1). TPH concentrations (as GRO/DRO) were below the

laboratory detection limits for all the samples except TH-1 with a TPH concentration of 6,420 mg/kg.

Laboratory analytical results of SC-2, SC-3, and SC-5 were used to confirm field screening results during excavation activities. Benzene and total BTEX concentrations were reported less than 0.050 mg/kg and 0.25 mg/kg, respectively. TPH concentrations (as GRO/DRO) were also reported below laboratory detection limits in SC-2 and SC-3. The chloride concentration in SC-5 was reported below the laboratory detection limit of 30 mg/kg. Results are presented in Table 2 and on Figures 3 and 4. Laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, BTEX, TPH, and Chloride
San Juan 27-5 #39 Surface Depression Assessment and Excavation
May and July, 2012

Sample ID	*Date Sampled*	*Sample Depth (ft bgs)*	*Benzene (mg/kg)*	*BTEX (mg/kg)*	*TPH-GRO (mg/kg)*	*TPH-DRO (mg/kg)*	*Chloride (mg/kg)*
*NMOCD Action Level**			*10*	*50*	*100*		*250*
TH-1	5/24/12	1.5	<1.0	**170**	**6,300**	**120**	NA
TH-2	5/24/12	1	<0.050	<0.25	<5.0	<9.7	NA
TH-3	5/24/12	1	<0.020	0.10	<5.0	<9.8	NA
TH-4	5/24/12	1	<0.020	<0.22	<5.0	<10	NA
TH-5	5/24/12	0.6	<0.020	<0.22	<5.0	<9.8	NA
TH-6	5/24/12	1	<0.020	<0.22	<5.0	<10	NA
SC-2	7/13/12	1 to 6	NA	NA	<5.0	<9.8	NA
SC-3	7/13/12	1 to 6	NA	NA	<5.0	<9.6	NA
SC-5	7/13/12	4-Point Composite	<0.050	<0.25	NA	NA	<30

NA – Not Analyzed
*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993); NA is Not Analyzed

3.0 Conclusions and Recommendations

On May 24, 2012, AES conducted an initial release assessment of petroleum contaminated soils following determination of a historical release located within the extents of a surface depression identified at the San Juan 275 #39. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 20. Field screening results above the NMOCD action level of 100 ppm VOCs were reported in TH-

1 and TH-2. Laboratory analytical results for samples collected on May 24, 2012, showed that total BTEX and TPH concentrations were reported above the applicable NMOCD action levels within TH-1 (170 mg/kg total BTEX and 6,420 mg/kg GRO/DRO). Based on field screening and laboratory analytical results, excavation of the release area was recommended for the location.

On July 13, 2012, clearance of the excavation area was completed. Field screening results of the excavation extents showed that VOC concentrations were below the NMOCD action level of 100 ppm in all samples. Field TPH concentrations exceeded the NMOCD action level of 100 mg/kg in SC-2 (135 mg/kg) and SC-3 (127 mg/kg). However, laboratory analytical results showed reported TPH concentrations below the NMOCD action level of 100 mg/kg in SC-2 and SC-3.

NMOCD action levels for pit closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13C. Analytical results for sample SC-5, a 4-point composite from the excavated surface depression, reported benzene, total BTEX, and TPH concentrations below the applicable NMOCD action levels. The chloride concentration in SC-5 was also reported below the NMOCD action level of 250 mg/kg.

Based on final field screening and laboratory analytical results for the final excavation of petroleum contaminated soils at the San Juan 27-5 # 39, VOCs, benzene, total BTEX, TPH, and chloride concentrations were below applicable NMOCD action levels. No further work is recommended.

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

Sincerely,

Heather M. Woods

Heather M. Woods
Staff Geologist

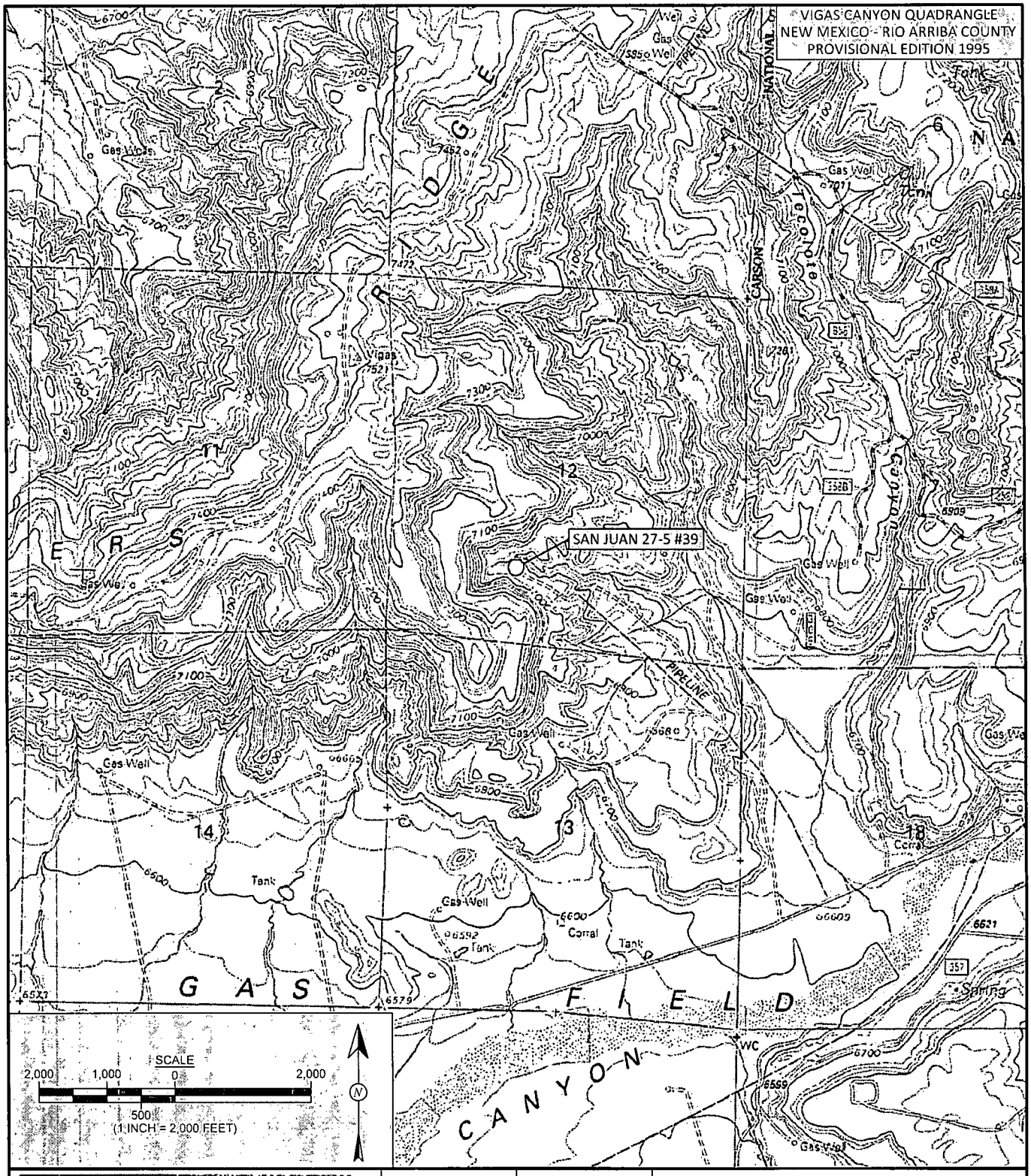
Elizabeth McNally

Elizabeth McNally, P.E.

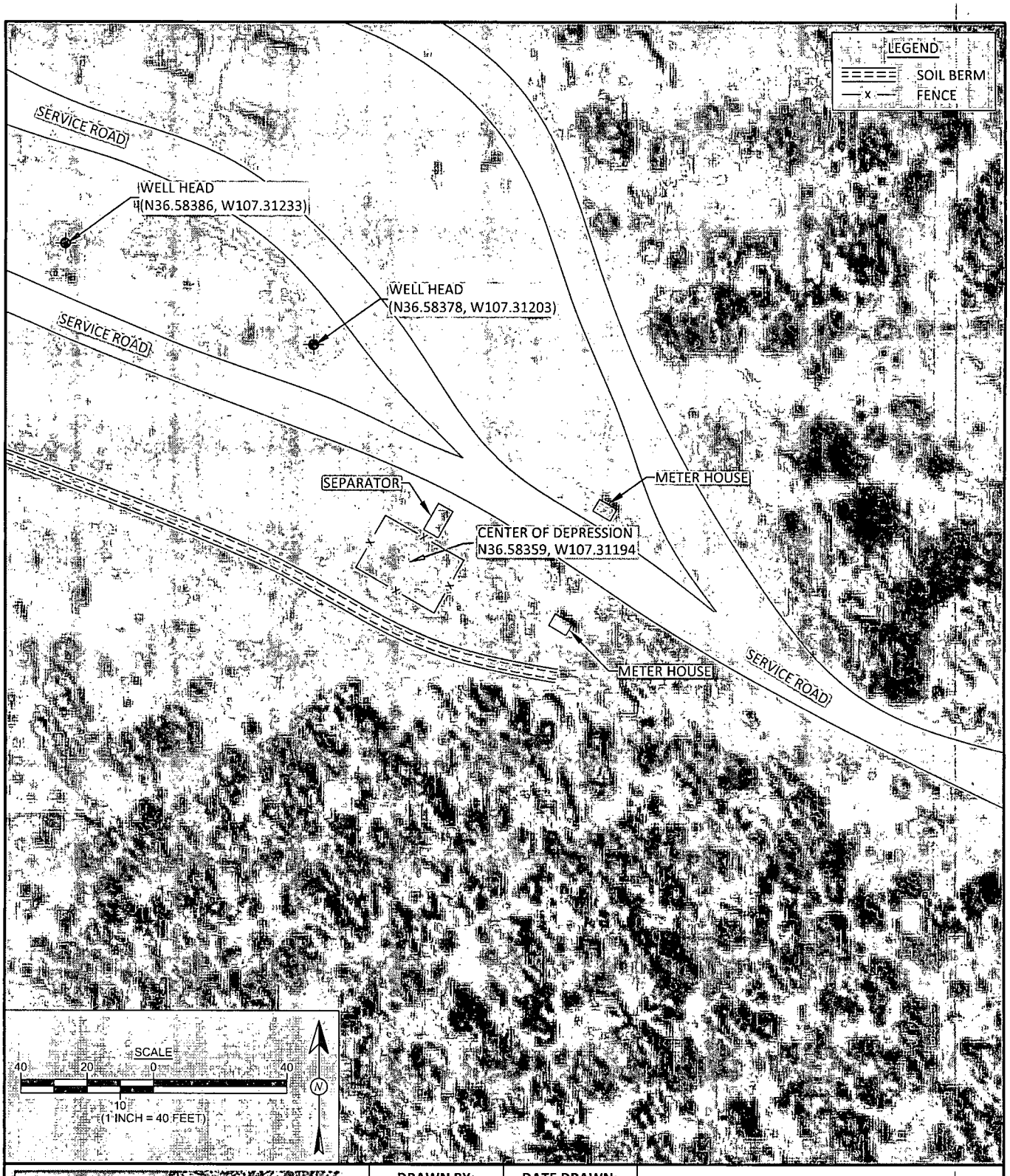
Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, May 2012
Figure 3. Initial Assessment Soil Sample Locations and Results, May 2012
Figure 4. Final Excavation Soil Sample Locations and Results, July 2012
AES Field Screening Report 052412
AES Field Screening Report 071312
Hall Analytical Report 1205A97
Hall Analytical Report 1207589

R:\Animas 2000\2012 Projects\Conoco Phillips\SJ 27-5 #39\San Juan 27-5 #39 Depression Assessmentand Excavation Report 112612.docx



Animas Environmental Services, LLC	**DRAWN BY:** N. Willis	**DATE DRAWN:** May 25, 2012	**FIGURE 1**
	REVISIONS BY: C. Lameman	**DATE REVISED:** November 26, 2012	**TOPOGRAPHIC SITE LOCATION MAP** ConocoPhillips SAN JUAN 27-5 #39 RIO ARRIBA COUNTY, NEW MEXICO SE¼ SW¼, SECTION 12, T27N, R5W N36.58378, W107.31203
	CHECKED BY: D. Watson	**DATE CHECKED:** November 26, 2012	
	APPROVED BY: E. McNally	**DATE APPROVED:** November 26, 2012	

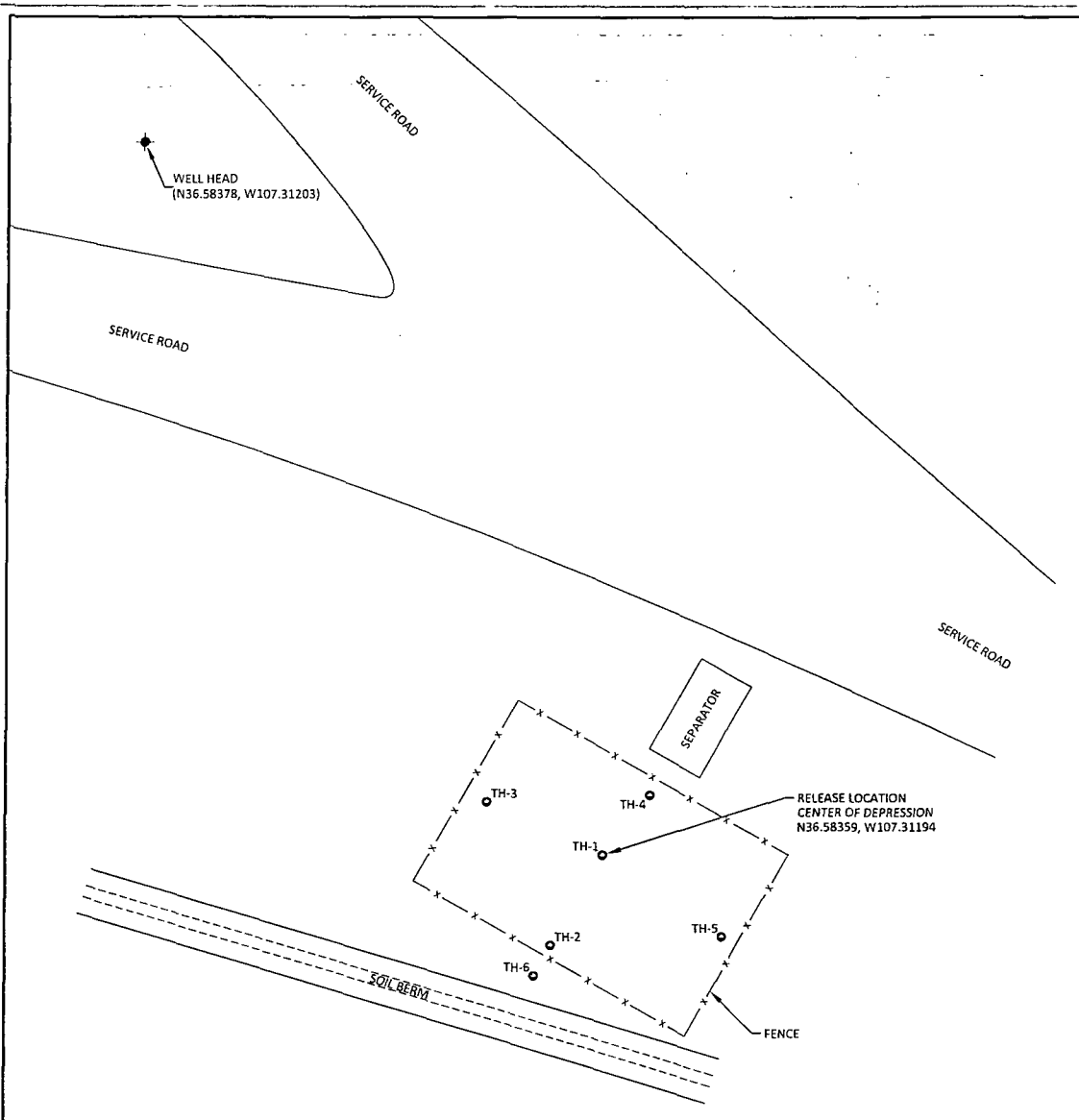


Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** November 26, 2012
REVISIONS BY: C. Lameman	**DATE REVISED:** November 26, 2012
CHECKED BY: D. Watson	**DATE CHECKED:** November 26, 2012
APPROVED BY: E. McNally	**DATE APPROVED:** November 26, 2012

FIGURE 2

AERIAL SITE MAP
MAY 2012
ConocoPhillips
SAN JUAN 27-5 #39
RIO ARRIBA COUNTY, NEW MEXICO
SE¼ SW¼, SECTION 12, T27N, R5W
N36.58378, W107.31203



Field Screening Results			
Sample ID	Date	Depth (ft)	OVM-PID (ppm)
NMOCD ACTION LEVEL			100
TH-1	5/24/12	0.5	56.8
		1	1,961
		1.5	1,950
TH-2	5/24/12	0.5	3,295
		1	408
TH-3	5/24/12	0.5	59.1
		1	49.7
TH-4	5/24/12	0.5	26.7
		1	23.6
TH-5	5/24/12	0.5	7.7
TH-6	5/24/12	0.5	2.0
		1	1.8

Laboratory Analytical Results						
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)
NMOCD ACTION LEVEL			10	50	100	
TH-1	5/24/12	1.5	<1.0	170	6,300	120
TH-2	5/24/12	1	<0.050	<0.25	<5.0	<9.7
TH-3	5/24/12	1	<0.020	0.10	<5.0	<9.8
TH-4	5/24/12	1	<0.020	<0.22	<5.0	<10
TH-5	5/24/12	0.6	<0.020	<0.22	<5.0	<9.8
TH-6	5/24/12	1	<0.020	<0.22	<5.0	<10
ALL SAMPLES WERE ANALYZED PER EPA METHOD 8260B AND 8015B.						

FIGURE 3

INITIAL ASSESSMENT SOIL SAMPLE LOCATIONS AND RESULTS
MAY 2012
ConocoPhillips
SAN JUAN 27-5 #39
RIO ARRIBA COUNTY, NEW MEXICO
SE¼ SW¼, SECTION 12, T27N, R5W
N36.58378, W107.31203

Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
N. Willis	May 25, 2012
REVISIONS BY:	DATE REVISED:
C. Lameman	November 26, 2012
CHECKED BY:	DATE CHECKED:
D. Watson	November 26, 2012
APPROVED BY:	DATE APPROVED:
E. McNally	November 26, 2012

LEGEND

SAMPLE LOCATIONS

N

SCALE

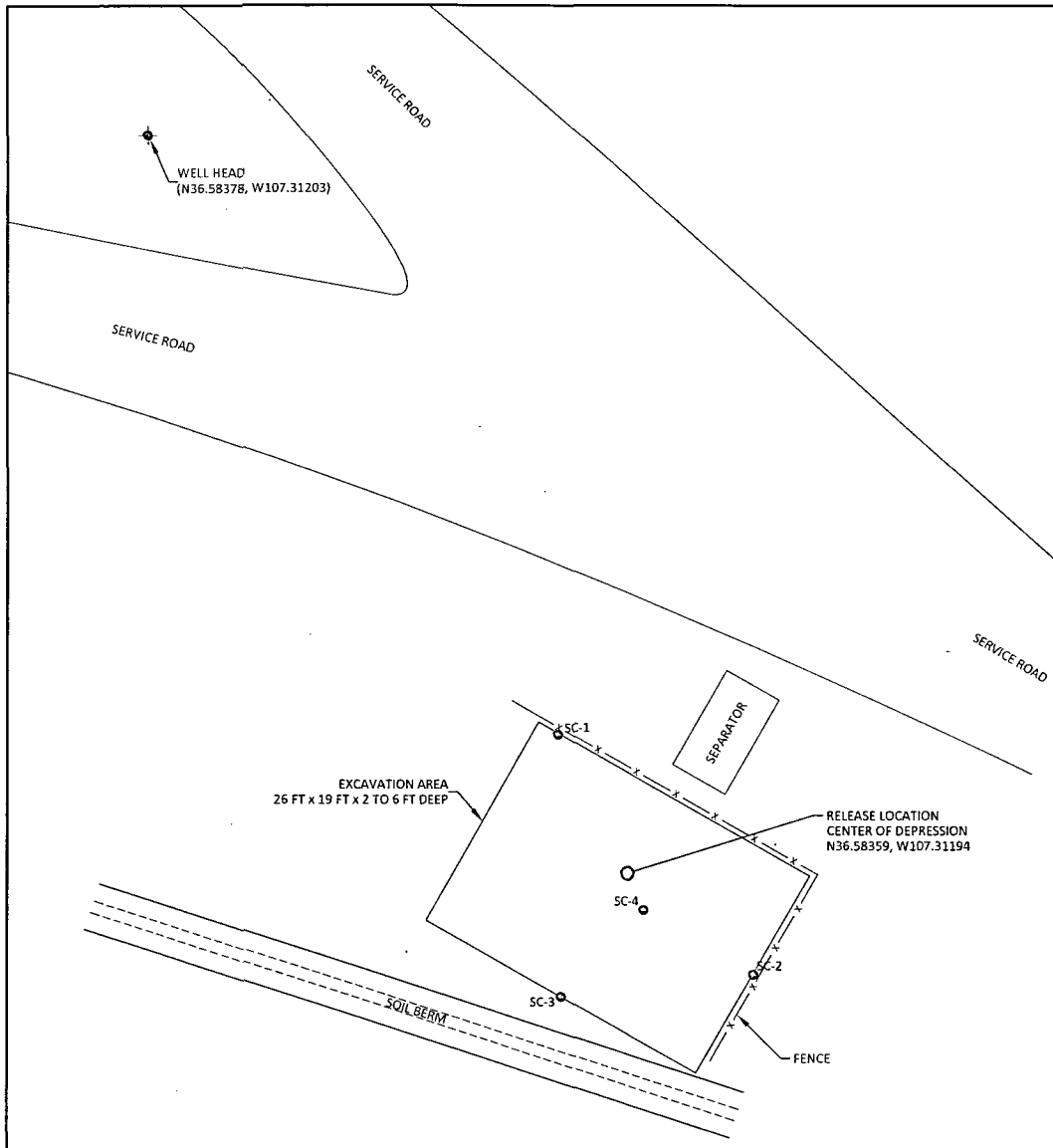
10 6 0 10

2

(1 INCH = 10 FEET)

FIGURE 4

FINAL EXCAVATION SOIL SAMPLE LOCATIONS AND RESULTS
JULY 2012
ConocoPhillips
SAN JUAN 27-5 #39
RIO ARRIBA COUNTY, NEW MEXICO
SE¼ SW¼, SECTION 12, T27N, R5W
N36.58378, W107.31203



Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
SC-1	7/13/12	0 to 3	0.8	59.3
SC-2	7/13/12	0 to 6	0.6	135
SC-3	7/13/12	0 to 6	1.2	127
SC-4	7/13/12	6	5.3	63.4

Laboratory Analytical Results							
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chloride (mg/kg)
NMOCD ACTION LEVEL			10	50	100		250
SC-2	7/13/12	0 to 6	NA	NA	<5.0	<9.8	NA
SC-3	7/13/12	0 to 6	NA	NA	<5.0	<9.6	NA
SC-5	7/13/12	--	<0.050	<0.25	NA	NA	<30
SC-5 WAS A COMPOSITE OF SC-1 THROUGH SC-4. SAMPLE WAS ANALYZED PER EPA METHOD 8260B OR 8015B AND 300.0.							

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: November 26, 2012
REVISIONS BY: C. Lameman	DATE REVISED: November 26, 2012
CHECKED BY: D. Watson	DATE CHECKED: November 26, 2012
APPROVED BY: E. McNally	DATE APPROVED: November 26, 2012

LEGEND

SAMPLE LOCATIONS

SCALE
10 6 0 10
2
(1 INCH = 10 FEET)

AES Field Screening Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3274

Client: ConocoPhillips

Project Location: San Juan 27-5 #39

Date: 5/24/2012

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
TH-1 @ 0.5'	5/24/2012	12:12	56.8	12:45	*Not analyzed for TPH.*			
TH-1 @ 1'	5/24/2012	12:14	1,961	12:46	*Not analyzed for TPH.*			
TH-1 @ 1.5'	5/24/2012	12:17	1,950	12:47	*Not analyzed for TPH.*			
TH-2 @ 0.5'	5/24/2012	12:25	3,295	12:50	*Not analyzed for TPH.*			
TH-2 @ 1'	5/24/2012	12:29	408	12:51	*Not analyzed for TPH.*			
TH-3 @ 0.5'	5/24/2012	12:30	59.1	12:52	*Not analyzed for TPH.*			
TH-3 @ 1'	5/24/2012	12:34	49.7	12:54	*Not analyzed for TPH.*			
TH-4 @ 0.5'	5/24/2012	12:37	26.7	12:55	*Not analyzed for TPH.*			
TH-4 @ 1'	5/24/2012	12:40	23.6	12:56	*Not analyzed for TPH.*			
TH-5 @ 0.5'	5/24/2012	12:43	7.7	12:57	*Not analyzed for TPH.*			
TH-6 @ 0.5'	5/24/2012	13:06	2.0	13:16	*Not analyzed for TPH.*			
TH-6 @ 1'	5/24/2012	13:07	1.8	13:17	*Not analyzed for TPH.*			

Total Petroleum Hydrocarbons - USEPA 418.1

PQL Practical Quantitation Limit
ND Not Detected at the Reporting Limit
DF Dilution Factor
NA Not Analyzed

**Field TPH concentrations recorded may be below PQL.*

Analyst: Deborah Watson

Report Finalized: 05/24/12

AES Field Screening Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3274

Client: ConocoPhillips

Project Location: San Juan 27-5 #39

Date: 7/13/2012

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field Chloride (mg/kg)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	7/13/2012	9:16	North	0.8	NA	10:10	59.3	20.0	1	HMW
SC-2	7/13/2012	9:18	SE Wall	0.6	NA	10:14	135.0	20.0	1	HMW
SC-3	7/13/2012	9:20	SW wall	1.2	NA	10:18	127.0	20.0	1	HMW
SC-4	7/13/2012	9:23	Base	5.3	20	10:23	63.4	20.0	1	HMW

PQL Practical Quantitation Limit
ND Not Detected at the Reporting Limit
NA Not Analyzed
DF Dilution Factor
**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: Heather M. Woods

Report Finalized: 07/13/12

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 30, 2012

Ross Kennemer

Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-1776
FAX (505) 324-2022

RE: COP SJ 27-5 #39

OrderNo.: 1205A97

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory received 6 sample(s) on 5/27/2012 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 or the state specific web sites. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1205A97**
Date Reported: **5/30/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: TH-1 @ 1.5'
Project: COP SJ 27-5 #39
Collection Date: 5/24/2012 12:17:00 PM
Lab ID: 1205A97-001
Matrix: MEOH (SOIL)
Received Date: 5/27/2012

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	120	9.8		mg/Kg	1	5/29/2012 11:12:47 AM
Surr: DNOP	104	82.1-121		%REC	1	5/29/2012 11:12:47 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **BDH**
Benzene	ND	1.0		mg/Kg	50	5/29/2012 11:33:33 AM
Toluene	ND	2.5		mg/Kg	50	5/29/2012 11:33:33 AM
Ethylbenzene	ND	2.5		mg/Kg	50	5/29/2012 11:33:33 AM
Xylenes, Total	170	5.0		mg/Kg	50	5/29/2012 11:33:33 AM
Surr: 1,2-Dichloroethane-d4	86.5	70-130		%REC	50	5/29/2012 11:33:33 AM
Surr: 4-Bromofluorobenzene	93.7	70-130		%REC	50	5/29/2012 11:33:33 AM
Surr: Dibromofluoromethane	110	71.7-132		%REC	50	5/29/2012 11:33:33 AM
Surr: Toluene-d8	91.6	70-130		%REC	50	5/29/2012 11:33:33 AM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **BDH**
Gasoline Range Organics (GRO)	6,300	250		mg/Kg	50	5/29/2012 11:33:33 AM
Surr: BFB	93.7	70-130		%REC	50	5/29/2012 11:33:33 AM

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: TH-2 @ 1'
Project: COP SJ 27-5 #39
Collection Date: 5/24/2012 12:29:00 PM
Lab ID: 1205A97-002
Matrix: MEOH (SOIL)
Received Date: 5/27/2012

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/29/2012 11:38:14 AM
Surr: DNOP	98.2	82.1-121		%REC	1	5/29/2012 11:38:14 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **BDH**
Benzene	ND	0.050		mg/Kg	1	5/29/2012 2:19:34 PM
Toluene	ND	0.050		mg/Kg	1	5/29/2012 2:19:34 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2012 2:19:34 PM
Xylenes, Total	ND	0.10		mg/Kg	1	5/29/2012 2:19:34 PM
Surr: 1,2-Dichloroethane-d4	92.6	70-130		%REC	1	5/29/2012 2:19:34 PM
Surr: 4-Bromofluorobenzene	89.0	70-130		%REC	1	5/29/2012 2:19:34 PM
Surr: Dibromofluoromethane	99.7	71.7-132		%REC	1	5/29/2012 2:19:34 PM
Surr: Toluene-d8	93.6	70-130		%REC	1	5/29/2012 2:19:34 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **BDH**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2012 2:19:34 PM
Surr: BFB	89.0	70-130		%REC	1	5/29/2012 2:19:34 PM

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: TH-3 @ 1'
Project: COP SJ 27-5 #39
Collection Date: 5/24/2012 12:34:00 PM
Lab ID: 1205A97-003
Matrix: MEOH (SOIL)
Received Date: 5/27/2012

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/29/2012 12:03:36 PM
Surr: DNOP	97.1	82.1-121		%REC	1	5/29/2012 12:03:36 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **BDH**
Benzene	ND	0.020		mg/Kg	1	5/29/2012 12:29:14 PM
Toluene	ND	0.050		mg/Kg	1	5/29/2012 12:29:14 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2012 12:29:14 PM
Xylenes, Total	0.10	0.10		mg/Kg	1	5/29/2012 12:29:14 PM
Surr: 1,2-Dichloroethane-d4	87.3	70-130		%REC	1	5/29/2012 12:29:14 PM
Surr: 4-Bromofluorobenzene	92.6	70-130		%REC	1	5/29/2012 12:29:14 PM
Surr: Dibromofluoromethane	90.7	71.7-132		%REC	1	5/29/2012 12:29:14 PM
Surr: Toluene-d8	94.3	70-130		%REC	1	5/29/2012 12:29:14 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **BDH**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2012 12:29:14 PM
Surr: BFB	92.6	70-130		%REC	1	5/29/2012 12:29:14 PM

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: COP SJ 27-5 #39
Lab ID: 1205A97-004 **Matrix:** MEOH (SOIL)

Client Sample ID: TH-4 @1'
Collection Date: 5/24/2012 12:40:00 PM
Received Date: 5/27/2012

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2012 12:28:49 PM
Surr: DNOP	97.4	82.1-121		%REC	1	5/29/2012 12:28:49 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **BDH**
Benzene	ND	0.020		mg/Kg	1	5/29/2012 12:56:45 PM
Toluene	ND	0.050		mg/Kg	1	5/29/2012 12:56:45 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2012 12:56:45 PM
Xylenes, Total	ND	0.10		mg/Kg	1	5/29/2012 12:56:45 PM
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%REC	1	5/29/2012 12:56:45 PM
Surr: 4-Bromofluorobenzene	92.9	70-130		%REC	1	5/29/2012 12:56:45 PM
Surr: Dibromofluoromethane	99.4	71.7-132		%REC	1	5/29/2012 12:56:45 PM
Surr: Toluene-d8	93.5	70-130		%REC	1	5/29/2012 12:56:45 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **BDH**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2012 12:56:45 PM
Surr: BFB	92.9	70-130		%REC	1	5/29/2012 12:56:45 PM

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: COP SJ 27-5 #39
Lab ID: 1205A97-005
Client Sample ID: TH-5 @ 0.6'
Collection Date: 5/24/2012 12:43:00 PM
Matrix: MEOH (SOIL)
Received Date: 5/27/2012

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/29/2012 12:54:21 PM
Surr: DNOP	98.8	82.1-121		%REC	1	5/29/2012 12:54:21 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **BDH**
Benzene	ND	0.020		mg/Kg	1	5/29/2012 1:24:20 PM
Toluene	ND	0.050		mg/Kg	1	5/29/2012 1:24:20 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2012 1:24:20 PM
Xylenes, Total	ND	0.10		mg/Kg	1	5/29/2012 1:24:20 PM
Surr: 1,2-Dichloroethane-d4	89.4	70-130		%REC	1	5/29/2012 1:24:20 PM
Surr: 4-Bromofluorobenzene	91.4	70-130		%REC	1	5/29/2012 1:24:20 PM
Surr: Dibromofluoromethane	96.9	71.7-132		%REC	1	5/29/2012 1:24:20 PM
Surr: Toluene-d8	95.0	70-130		%REC	1	5/29/2012 1:24:20 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **BDH**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2012 1:24:20 PM
Surr: BFB	91.4	70-130		%REC	1	5/29/2012 1:24:20 PM

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: COP SJ 27-5 #39
Lab ID: 1205A97-006
Matrix: MEOH (SOIL)
Client Sample ID: TH-6 @ 1'
Collection Date: 5/24/2012 1:09:00 PM
Received Date: 5/27/2012

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2012 1:20:00 PM
Surr: DNOP	97.1	82.1-121		%REC	1	5/29/2012 1:20:00 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **BDH**
Benzene	ND	0.020		mg/Kg	1	5/29/2012 1:51:58 PM
Toluene	ND	0.050		mg/Kg	1	5/29/2012 1:51:58 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2012 1:51:58 PM
Xylenes, Total	ND	0.10		mg/Kg	1	5/29/2012 1:51:58 PM
Surr: 1,2-Dichloroethane-d4	86.2	70-130		%REC	1	5/29/2012 1:51:58 PM
Surr: 4-Bromofluorobenzene	89.9	70-130		%REC	1	5/29/2012 1:51:58 PM
Surr: Dibromofluoromethane	96.7	71.7-132		%REC	1	5/29/2012 1:51:58 PM
Surr: Toluene-d8	92.7	70-130		%REC	1	5/29/2012 1:51:58 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **BDH**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2012 1:51:58 PM
Surr: BFB	89.9	70-130		%REC	1	5/29/2012 1:51:58 PM

Qualifiers:

*/X	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
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#: 1205A97

30-May-12

Client: Animas Environmental Services

Project: COP SJ 27-5 #39

Sample ID	MB-2116	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	2116	RunNo:	3051					
Prep Date:	5/25/2012	Analysis Date:	5/29/2012	SeqNo:	84484	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		111	82.1	121			

Sample ID	LCS-2116	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	2116	RunNo:	3051					
Prep Date:	5/25/2012	Analysis Date:	5/29/2012	SeqNo:	84500	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		94.3	82.1	121			

Sample ID	MB-2112	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	2112	RunNo:	3051					
Prep Date:	5/25/2012	Analysis Date:	5/29/2012	SeqNo:	84501	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		109	82.1	121			

Sample ID	LCS-2112	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	2112	RunNo:	3051					
Prep Date:	5/25/2012	Analysis Date:	5/29/2012	SeqNo:	84655	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		96.4	82.1	121			

Sample ID	1205A10-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	2112	RunNo:	3051					
Prep Date:	5/25/2012	Analysis Date:	5/29/2012	SeqNo:	84661	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		4.878		94.2	82.1	121			

Sample ID	1205A10-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	2112	RunNo:	3051					
Prep Date:	5/25/2012	Analysis Date:	5/29/2012	SeqNo:	84744	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		4.854		98.5	82.1	121	0	0	

Sample ID	MB-2129	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	2129	RunNo:	3051					
Prep Date:	5/29/2012	Analysis Date:	5/29/2012	SeqNo:	84746	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205A97**

30-May-12

Client: Animas Environmental Services
Project: COP SJ 27-5 #39

Sample ID	MB-2129	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	PBS	Batch ID:	2129		RunNo:	3051				
Prep Date:	5/29/2012	Analysis Date:	5/29/2012		SeqNo:	84746	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		105	82.1	121			

Sample ID	LCS-2129	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	2129		RunNo:	3051				
Prep Date:	5/29/2012	Analysis Date:	5/29/2012		SeqNo:	84867	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.4	52.6	130			
Surr: DNOP	4.6		5.000		91.2	82.1	121			

Sample ID	1205A59-001AMS	SampType:	MS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	2116		RunNo:	3064				
Prep Date:	5/25/2012	Analysis Date:	5/29/2012		SeqNo:	85124	Units:	%REC		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.005		90.2	82.1	121			

Sample ID	1205A59-001AMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	2116		RunNo:	3064				
Prep Date:	5/25/2012	Analysis Date:	5/29/2012		SeqNo:	85125	Units:	%REC		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.3		5.025		105	82.1	121	0	0	

Sample ID	MB-2136	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	PBS	Batch ID:	2136		RunNo:	3082				
Prep Date:	5/29/2012	Analysis Date:	5/30/2012		SeqNo:	85154	Units:	%REC		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		106	82.1	121			

Sample ID	LCS-2136	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	2136		RunNo:	3082				
Prep Date:	5/29/2012	Analysis Date:	5/30/2012		SeqNo:	85155	Units:	%REC		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.9	82.1	121			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205A97**

30-May-12

Client: Animas Environmental Services

Project: COP SJ 27-5 #39

Sample ID	**1205A68-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015B: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID: **2136**			RunNo: **3082**					
Prep Date:	**5/29/2012**	Analysis Date: **5/30/2012**			SeqNo: **85232**		Units: **%REC**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.7		4.912		96.7	82.1	121			

Sample ID	**1205A68-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015B: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID: **2136**			RunNo: **3082**					
Prep Date:	**5/29/2012**	Analysis Date: **5/30/2012**			SeqNo: **85347**		Units: **%REC**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.8		4.907		97.6	82.1	121	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205A97**

30-May-12

Client: Animas Environmental Services
Project: COP SJ 27-5 #39

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	R3072	RunNo:	3072					
Prep Date:		Analysis Date:	5/29/2012	SeqNo:	84877	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: 1,2-Dichloroethane-d4	0.46		0.5000		92.9	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.7	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.7	71.7	132			
Surr: Toluene-d8	0.45		0.5000		90.9	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	R3072	RunNo:	3072					
Prep Date:		Analysis Date:	5/29/2012	SeqNo:	84878	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	103	70.7	123			
Toluene	0.99	0.050	1.000	0	99.3	80	120			
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.3	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.4	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.3	71.7	132			
Surr: Toluene-d8	0.43		0.5000		85.9	70	130			

Sample ID	mb-2131	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	2131	RunNo:	3072					
Prep Date:	5/25/2012	Analysis Date:	5/29/2012	SeqNo:	85197	Units:	%REC			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.7	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.2	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		88.4	71.7	132			
Surr: Toluene-d8	0.47		0.5000		95.0	70	130			

Sample ID	lcs-2131	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	2131	RunNo:	3072					
Prep Date:	5/25/2012	Analysis Date:	5/29/2012	SeqNo:	85198	Units:	%REC			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.0	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		87.7	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.6	71.7	132			
Surr: Toluene-d8	0.45		0.5000		89.6	70	130			

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1205A97

30-May-12

Client: Animas Environmental Services

Project: COP SJ 27-5 #39

Sample ID **1205a88-001ams** SampType: **MS** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **BatchQC** Batch ID: **2131** RunNo: **3072**

Prep Date: **5/25/2012** Analysis Date: **5/29/2012** SeqNo: **85201** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	4.7		5.171		91.3	70	130			
Surr: 4-Bromofluorobenzene	5.4		5.171		105	70	130			
Surr: Dibromofluoromethane	4.8		5.171		93.6	71.7	132			
Surr: Toluene-d8	4.9		5.171		94.1	70	130			

Sample ID **1205a88-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **BatchQC** Batch ID: **2131** RunNo: **3072**

Prep Date: **5/25/2012** Analysis Date: **5/29/2012** SeqNo: **85202** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	4.9		5.274		92.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	5.1		5.274		96.8	70	130	0	0	
Surr: Dibromofluoromethane	4.2		5.274		79.5	71.7	132	0	0	
Surr: Toluene-d8	4.9		5.274		93.6	70	130	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205A97**

30-May-12

Client: Animas Environmental Services
Project: COP SJ 27-5 #39

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8015B Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	R3072	RunNo:	3072					
Prep Date:		Analysis Date:	5/29/2012	SeqNo:	84881	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	480		500.0		96.7	70	130			

Sample ID	2.5gro lcs	SampType:	LCS	TestCode:	EPA Method 8015B Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	R3072	RunNo:	3072					
Prep Date:		Analysis Date:	5/29/2012	SeqNo:	84882	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	85	115			
Surr: BFB	470		500.0		93.6	70	130			

Sample ID	1205a99-001ams	SampType:	MS	TestCode:	EPA Method 8015B Mod: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3072	RunNo:	3072					
Prep Date:		Analysis Date:	5/29/2012	SeqNo:	85203	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0	25.00	0	130	70	130			
Surr: BFB	450		500.0		90.0	70	130			

Sample ID	1205a99-001amsd	SampType:	MSD	TestCode:	EPA Method 8015B Mod: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3072	RunNo:	3072					
Prep Date:		Analysis Date:	5/29/2012	SeqNo:	85204	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	113	70	130	13.6	20	
Surr: BFB	530		500.0		105	70	130	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1205A97

Received by/date: AF 05/26/12

Logged By: **Andy Freeman** 5/27/2012

Completed By: **Anne Thorne** 5/29/2012

Reviewed By: AF/AT 05/29/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. 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)

17. 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: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Animas Environmental Services LLC

Mailing Address: 624 E Comanche Farmington NM 87401

Phone #: 505 564 2281

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush Same Day

Project Name: CoP SJ 27-5 #39

Project #:

Project Manager: R. Kennemer

Sampler: D Watson

On Ice: ☒ Yes ☐ No

Sample Temperature: 0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and # (05/29/12 All Meoh kits)	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel) GRO / DRO	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
5-24-12	1217	soil	TH-1@1.5'	1-4oz glass	—	1205497-1	X		X									
	1229		TH-2@1'			-2	X		X									
	1234		TH-3@1'			-3	X		X									
	1240		TH-4@1'			-4	X		X									
	1243		TH-5@0.6'			-5	X		X									
	1309		TH-6@1'			-6	X		X									

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/25/12	1147	Debra Watson	Christie Walter	5/25/12	1147
Date:	Time:	Relinquished by:	Received by:	Date	Time
5/25/12	1237	Christie Walter		5/24/12	11:30

Remarks: Bill to ConocoPhillips
WO: 9032191
Area: 25
User: MKSPENC
ordered by: Ashley M.
Supervisor: Billy Schaaphok

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

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

July 18, 2012

Debbie Watson
Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-4071
FAX

RE: COP SJ 27-5 #39 OrderNo.: 1207589

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 7/14/2012 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 or the state specific web sites. 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. 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.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1207589**
Date Reported: **7/18/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: SC-2
Project: COP SJ 27-5 #39
Collection Date: 7/13/2012 9:18:00 AM
Lab ID: 1207589-001
Matrix: SOIL
Received Date: 7/14/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/16/2012 9:49:15 AM
Surr: DNOP	108	77.6-140		%REC	1	7/16/2012 9:49:15 AM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/16/2012 12:46:27 PM
Surr: BFB	95.5	70-130		%REC	1	7/16/2012 12:46:27 PM

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Analytical Report
Lab Order **1207589**
Date Reported: **7/18/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: COP SJ 27-5 #39
Lab ID: 1207589-002 **Matrix:** SOIL

Client Sample ID: SC-3
Collection Date: 7/13/2012 9:20:00 AM
Received Date: 7/14/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/16/2012 10:14:19 AM
Surr: DNOP	111	77.6-140		%REC	1	7/16/2012 10:14:19 AM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/16/2012 1:14:50 PM
Surr: BFB	90.3	70-130		%REC	1	7/16/2012 1:14:50 PM

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: SC-5
Project: COP SJ 27-5 #39
Collection Date: 7/13/2012 9:28:00 AM
Lab ID: 1207589-003 **Matrix:** SOIL **Received Date:** 7/14/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	ND	30		mg/Kg	20	7/16/2012 11:18:46 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	7/16/2012 1:43:09 PM
Toluene	ND	0.050		mg/Kg	1	7/16/2012 1:43:09 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/16/2012 1:43:09 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/16/2012 1:43:09 PM
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%REC	1	7/16/2012 1:43:09 PM
Surr: 4-Bromofluorobenzene	99.1	70-130		%REC	1	7/16/2012 1:43:09 PM
Surr: Dibromofluoromethane	91.0	70-130		%REC	1	7/16/2012 1:43:09 PM
Surr: Toluene-d8	96.7	70-130		%REC	1	7/16/2012 1:43:09 PM

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207589

18-Jul-12

Client: Animas Environmental Services

Project: COP SJ 27-5 #39

Sample ID	**MB-2830**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**2830**		RunNo:	**4050**				
Prep Date:	**7/16/2012**	Analysis Date:	**7/16/2012**		SeqNo:	**115812**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-2830**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**2830**		RunNo:	**4050**				
Prep Date:	**7/16/2012**	Analysis Date:	**7/16/2012**		SeqNo:	**115813**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.5	90	110			

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207589

18-Jul-12

Client: Animas Environmental Services
Project: COP SJ 27-5 #39

Sample ID	MB-2821	SampType: MBLK			TestCode: EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID: 2821			RunNo: 4037					
Prep Date:	7/15/2012	Analysis Date: 7/16/2012			SeqNo: 115383		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	11		10.00		110	77.6	140			

Sample ID	LCS-2821	SampType: LCS			TestCode: EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID: 2821			RunNo: 4037					
Prep Date:	7/15/2012	Analysis Date: 7/16/2012			SeqNo: 115384		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	10	50.00	0	71.5	52.6	130			
Surr: DNOP	4.9		5.000		97.9	77.6	140			

Sample ID	1207447-001AMS	SampType: MS			TestCode: EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID: 2821			RunNo: 4037					
Prep Date:	7/15/2012	Analysis Date: 7/16/2012			SeqNo: 115386		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	9.8	49.21	0	73.6	57.2	146			
Surr: DNOP	4.0		4.921		81.8	77.6	140			

Sample ID	1207447-001AMSD	SampType: MSD			TestCode: EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID: 2821			RunNo: 4037					
Prep Date:	7/15/2012	Analysis Date: 7/16/2012			SeqNo: 115387		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	9.9	49.46	0	71.4	57.2	146	2.54	24.5	
Surr: DNOP	3.9		4.946		77.9	77.6	140	0	0	

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207589

18-Jul-12

Client: Animas Environmental Services

Project: COP SJ 27-5 #39

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **R4052**	RunNo: **4052**
Prep Date:	Analysis Date: **7/16/2012**	SeqNo: **116879** 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: 1,2-Dichloroethane-d4	0.48		0.5000		95.1	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.6	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **R4052**	RunNo: **4052**
Prep Date:	Analysis Date: **7/16/2012**	SeqNo: **116880** 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	107	70.7	123			
Toluene	1.0	0.050	1.000	0	99.7	80	120			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.8	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.8	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID **1207589-003a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SC-5**	Batch ID: **R4052**	RunNo: **4052**
Prep Date:	Analysis Date: **7/16/2012**	SeqNo: **116881** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.77	0.050	0.7424	0	104	81.3	119			
Toluene	0.71	0.050	0.7424	0	95.4	75	121			
Surr: 1,2-Dichloroethane-d4	0.37		0.3712		98.4	70	130			
Surr: 4-Bromofluorobenzene	0.34		0.3712		90.6	70	130			
Surr: Dibromofluoromethane	0.36		0.3712		97.8	70	130			
Surr: Toluene-d8	0.36		0.3712		96.5	70	130			

Sample ID **1207589-003a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SC-5**	Batch ID: **R4052**	RunNo: **4052**
Prep Date:	Analysis Date: **7/16/2012**	SeqNo: **116882** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.74	0.050	0.7424	0	99.5	81.3	119	4.71	15.7	
Toluene	0.69	0.050	0.7424	0	93.3	75	121	2.24	16.2	
Surr: 1,2-Dichloroethane-d4	0.38		0.3712		102	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.37		0.3712		100	70	130	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207589**

18-Jul-12

Client: Animas Environmental Services
Project: COP SJ 27-5 #39

Sample ID	**1207589-003a msd**	SampType: **MSD**		TestCode: **EPA Method 8260B: Volatiles Short List**					
Client ID:	**SC-5**	Batch ID: **R4052**		RunNo: **4052**					
Prep Date:		Analysis Date: **7/16/2012**		SeqNo: **116882**	Units: **mg/Kg**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.37		0.3712		98.7	70	130	0	0	
Surr: Toluene-d8	0.36		0.3712		97.8	70	130	0	0	

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207589

18-Jul-12

Client: Animas Environmental Services

Project: COP SJ 27-5 #39

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **R4052**	RunNo: **4052**
Prep Date:	Analysis Date: **7/16/2012**	SeqNo: **116850** 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	520		500.0		105	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R4052**	RunNo: **4052**
Prep Date:	Analysis Date: **7/16/2012**	SeqNo: **116852** 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	85	115			
Surr: BFB	500		500.0		99.6	70	130			

Sample ID **1207589-001a ms**	SampType: **MS**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **SC-2**	Batch ID: **R4052**	RunNo: **4052**
Prep Date:	Analysis Date: **7/16/2012**	SeqNo: **116853** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	5.0	19.24	0	97.0	70	130			
Surr: BFB	360		384.7		93.6	70	130			

Sample ID **1207589-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **SC-2**	Batch ID: **R4052**	RunNo: **4052**
Prep Date:	Analysis Date: **7/16/2012**	SeqNo: **116854** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	5.0	19.24	0	89.1	70	130	8.47	20	
Surr: BFB	370		384.7		95.9	70	130	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1207589

Received by/date: AF 07/14/12

Logged By: Anne Thorne 7/14/2012 12:00:00 PM Anne Thorne

Completed By: Anne Thorne 7/16/2012 Anne Thorne

Reviewed By: JO 07/16/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. 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)

17. 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: _____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes			

Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 624 E. Comanche
Farmington, NM 87401

Phone #: (505) 564-2281

email or Fax#: (505) 324-2022

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☑ Rush Same Day

Project Name:
CoP SJ 27-5 #39

Project #:

Project Manager:
D. Watson

Sampler: H. Woods

On Ice: ☑ Yes ☐ No

Sample Temperature: 2.4°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1209589	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel) (GRO/DRO)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F^-, Cl^-, NO_3, NO_2, PO_4, SO_4) Chloride only	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
7/13/12	918	Soil	SC-2	MeOH Kit 2 4oz Jars	MeOH	-001			X	X								
7/13/12	920	Soil	SC-3	MeOH Kit 2 4oz Jars	MeOH	-002			X	X								
7/13/12	928	Soil	SC-5	MeOH Kit 2 4oz Jars	MeOH	-003	X							X				

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/13/12	1557	Heather M Woods	Christine Walker	7/13/12	1557
7/13/12	1648	Christine Walker		7/14/12	1200

Remarks: Bill to Conoco Phillips
WO: 9032191 User: MKSPENC
Area: 25 ordered by: Ashley Maxwell
Supervisor: Billy Schaaphok

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.