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 Oil & Gas Company**	Contact **Crystal Tafoya**
Address 3401 East 30th St, Farmington, NM	Telephone No.(505) 326-9837
Facility Name: **Ute 12**	Facility Type: **Gas Well**

Surface Owner **Tribal**	Mineral Owner **Tribal (I-22-IND-2772)**	API No.**30-045-11426**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	**16**	**32N**	**14W**	**2708**	**South**	**1608**	**West**	**San Juan**

Latitude 36.98808 Longitude 108.3174

NATURE OF RELEASE

Type of Release **Produced Water**	Volume of Release **230 bbls**	Volume Recovered **150 bbls**
Source of Release **Produced Water Tank**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **3/4/2013 at 4:30 am**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Ryan Joyner (COBLM) & Brandon Powell (NMOCD)**	
By Whom? **Lisa Hunter**	Date and Hour **3/4/2013 at 1:26 pm**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RCVD JUL 11 '13
OIL CONS. DIV.
DIST. 3

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

Describe Cause of Problem and Remedial Action Taken.*
Corrosion in production tanks were discovered and released 230bbls of produced water. The well was shut-in and water trucks called to location. 150bbls produced water was recovered. The release was contained within the berm and did not leave location.

Describe Area Affected and Cleanup Action Taken.*
Soil sampling was conducted on 3/7/13 with recommendations of excavation using UMU & COGCC Table 910-1 Standards. The excavation was 25' X 35' X 3' Deep with 97 cubic yards of soil transported to a third party landfarm. On 5/21/13 during excavation a historic release was encountered and excavated. The excavation was 15' X 18' X 2' Deep with 20 cubic yards of soil being transported to a third party landfarm. Excavation and confirmation sampling occurred on 5/21/13. Field screening results indicated TPH concentrations below applicable UMUT Standards for all excavation areas. No further action will be performed and 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: Crystal L. Tafoya	OIL CONSERVATION DIVISION Approved by Environmental Specialist: Jonathan D. Kelly
Printed Name: **Crystal Tafoya**	
Title: **Field Environmental Specialist**	Approval Date: 8/1/2013 Expiration Date:
E-mail Address: crystal.tafoya@conocophillips.com	Conditions of Approval: Attached ☐
Date: 7/10/2013 Phone: (505) 326-9837	

* Attach Additional Sheets If Necessary

nJK1321355271 * 2 additional C-141s attached for adjoining remediation 96

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 Oil & Gas Company**	Contact **Crystal Tafoya**
Address 3401 East 30th St, Farmington, NM	Telephone No.(505) 326-9837
Facility Name: **Ute 12**	Facility Type: **Gas Well**

Surface Owner **Tribal**	Mineral Owner **Tribal (I-22-IND-2772)**	API No.**30-045-11426**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	**16**	**32N**	**14W**	**2708**	**South**	**1608**	**West**	**San Juan**

Latitude 36.98808 Longitude 108.3174

NATURE OF RELEASE

Type of Release **Produced Water**	Volume of Release **39 bbls**	Volume Recovered **0 bbls**
Source of Release **Produced Water Tank**	Date and Hour of Occurrence **12/3/2012**	Date and Hour of Discovery **12/3/2012 at 5:15 am**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Ryan Joyner (COBLM) & Charlie Perrin (NMOCD)**	
By Whom? **Crystal Tafoya**	Date and Hour **12/3/2012 at 2:52pm**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RCVD JUL 11 '13
OIL CONS. DIV.
DIST. 3

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

Describe Cause of Problem and Remedial Action Taken.*
Equalizer line between Tank #1 and Tank #2 became plugged and caused Tank #1 to overflow through the thief hatch. Approximately 39bbls of produced water overflowed out of the tank and into the berm. The fluid did not leave the bermed area.

Describe Area Affected and Cleanup Action Taken.*
Soil sampling was conducted on 12/6/12 with recommendation of excavation using Ute Mountain Ute & COGCC Table 910-1 Standards. The excavation was 25' X 25' X 3' Deep and 70 cubic yards of soil was transported to a third party landfarm Excavation and confirmation sampling occurred. Field screening results of the excavation extents showed that TPH concentrations were below applicable UMUT Standards for all of the final four walls and the base of the excavation. No further action will be performed and 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: Crystal L. Tafoya	OIL CONSERVATION DIVISION
Printed Name: **Crystal Tafoya**	Approved by Environmental Specialist: Jonathan D. Kelly
Title: **Field Environmental Specialist**	Approval Date: 8/1/2013 Expiration Date:
E-mail Address: crystal.tafoya@conocophillips.com	Conditions of Approval: Attached ☐
Date: 7/10/2013 Phone: (505) 326-9837	

* Attach Additional Sheets If Necessary

nJK1321355625

* 2 additional C-141s attached for adjoining remediation

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 Oil & Gas Company**	Contact **Crystal Tafoya**
Address 3401 East 30th St, Farmington, NM	Telephone No.(505) 326-9837
Facility Name: **Ute 12**	Facility Type: **Gas Well**

Surface Owner **Tribal**	Mineral Owner **Tribal (I-22-IND-2772)**	API No.**30-045-11426**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	**16**	**32N**	**14W**	**2708**	**South**	**1608**	**West**	**San Juan**

Latitude 36.98808 Longitude 108.3174

NATURE OF RELEASE

Type of Release **Produced Water**	Volume of Release **35 bbls**	Volume Recovered **30 bbls**
Source of Release **Produced Water Tank**	Date and Hour of Occurrence	Date and Hour of Discovery **1/17/2013 at 6:00am**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **COBLM (Ryan Joyner) & NMOCD (Brandon Powell)**	
By Whom? **Crystal Tafoya**	Date and Hour **1/17/2013 at 1:16pm**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RCVD JUL 11 '13
OIL CONS. DIV.
DIST. 3

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

Describe Cause of Problem and Remedial Action Taken.*
A hole in the produced water tank released 35bbls of produced water into the containment berm. The release did not leave location and a water truck was able to recover 30bbls of produced water. The well is shut-in and is awaiting repair.

Describe Area Affected and Cleanup Action Taken.*
Soil sampling was conducted on 1/25/2013 with recommendations of excavation using Ute Mountain Ute & COGCC Table 910-1 Standards. The excavation included the release from 12/3/2012 and was 25' X 25' X 3' Deep and 70 cubic yards of soil was transported to a third party landfarm. Excavation and confirmation sampling occurred. Field screening results of the excavation extents showed that TPH concentrations were below applicable UMUT Standards for all of the final four walls and the base of the excavation. No further action will be performed and 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: Crystal L. Tafoya	OIL CONSERVATION DIVISION Approved by Environmental Specialist: Jonathan D. Kelly
Printed Name: **Crystal Tafoya**	
Title: **Field Environmental Specialist**	Approval Date: 8/1/2013 Expiration Date:
E-mail Address: crystal.tafoya@conocophillips.com	Conditions of Approval: Attached ☐
Date: 7/10/2013 Phone: (505) 326-9837	

* Attach Additional Sheets If Necessary

nJK1321355869 * 2 additional C-141s attached for adjoining remediation

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

July 2, 2013

Crystal Tafoya
ConocoPhillips
San Juan Business Unit
Office 214-05
5525 Hwy 64
Farmington, New Mexico 87401

Via electronic mail to: SJBUE-Team@ConocoPhillips.com

RE: Initial Release Assessments and Final Excavation Report
Ute #12
San Juan County, New Mexico

Dear Ms. Tafoya:

On December 6, 2012, Animas Environmental Services, LLC (AES) completed an initial release assessment at the Ute #12, located in San Juan County, New Mexico. The release consisted of approximately 39 barrels (bbls) of produced water which overflowed from the northernmost produced water tank in the tank battery.

On January 25, 2013, AES returned to the location and completed an additional initial release assessment at the Ute #12. The second release consisted of approximately 35 bbls of produced water that leaked from a hole in the northernmost produced water tank in the tank battery.

On March 7, 2013, AES again returned to the location and completed an initial release assessment for a corrosion caused produced water release from the southernmost tank in the tank battery. The third release was estimated to be approximately 230 bbls.

On May 21, 2013, AES returned to the location and completed confirmation sampling on two excavations within the tank battery. During the confirmation sampling, an additional release area associated with the former drip tank was discovered, and AES completed confirmation sampling for an excavation associated with that release as well.

1.0 Site Information

1.1 Location

Location - NE¼ SW¼, Section 16, T32N, R14W, San Juan County, New Mexico
Well/Facility Location Latitude/Longitude – N36.98711 and W108.31692, respectively

Release #1 and #2 Latitude/Longitude - N36.98733 and W108.31715, respectively
Release #3 Latitude/Longitude - N36.98725 and W108.31721, respectively
Release #4 Latitude/Longitude - N36.98720 and W108.31763, respectively
Land Jurisdiction – Ute Mountain Ute Tribe (UMUT)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map

1.2 Regulatory

Standards for releases are determined by the Ute Mountain Ute Environmental Programs Department Standards for Spill Clean-Up and Reclamation based on Colorado Oil and Gas Commission Standards outlined within the COGCC Rules 900 Series Exploration and Production (E&P) Waste Management Table 910-1. These rules are applicable only to E&P waste, as defined in §34-60-103(4.5), Colorado Revised Statutes (CRS).

1.3 Distance to Groundwater and Surface Water

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a Cathodic Protection Report dated January 1995 for the Ute #12 reported the depth to groundwater as 340 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 site 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. An unnamed wash is located approximately 400 feet southeast of the location and drains to Barker Arroyo

1.4 Assessments

Release #1
AES was initially contacted by Crystal Tafoya of CoP on December 6, 2012, and on the same day, Deborah Watson of AES completed the initial release assessment field work. The assessment included collecting one 5-point composite soil sample (SC-1) from visibly stained surface soils in the release area for laboratory analysis. Sampling locations are shown on Figure 3.

Release #2
AES was contacted by Crystal Tafoya of CoP on January 22, 2013, and on January 25, 2013, Kelsey Christiansen and Corwin Lameman of AES completed the initial release assessment field work. The assessment included collection and field screening of 36 soil samples from 9 soil borings (SB-1 through SB-9) within the release area. Additionally, one soil sample (SC-2) was composited from surface samples collected in SB-1 through SB-9 for laboratory analysis. Sampling locations are shown on Figure 4.

Release #3
AES was contacted by Crystal Tafoya of CoP on March 6, 2013, and on March 7, 2013, Deborah Watson and Heather Woods of AES completed the initial release assessment field work. The assessment included collection and field screening of 23 soil samples from 11 soil borings (SB-10 through SB-20) within the release area. Additionally, three soil samples (SC-3 through SC-5) were composited from surface samples collected in SB-10 through SB-20. Sampling locations are shown on Figure 5.

Release #4
During final excavation confirmation sampling on May 21, 2013, a release from the former drip tank was identified, and AES personnel recommended an area of excavation based on visual observations and consultation with CoP personnel.

Final Excavation Confirmation Sampling
On May 21, 2013, AES personnel completed confirmation sampling on three excavation areas (Area A, B, and C). Composite soil samples were collected from the walls and base of each excavation, for a total of 15 samples (SC-6 through SC-20). Additionally, samples SC-16 through SC-20 were composited into sample SC-21 and submitted for laboratory analysis. Sample locations and excavation extents are shown on Figure 6.

2.0 Soil Sampling

A total of 59 soil samples were collected from 20 soil borings (SB-1 through SB-20). Additionally, five composite samples (SC-1 through SC-5) were collected during the assessments. Fifteen composite samples (SC-6 through SC-20) were collected during final excavation confirmation sampling. Soil samples were field-screened for volatile organic compounds (VOCs) and selected samples were also analyzed for total petroleum hydrocarbons (TPH). Additionally, composite samples SC-1 through SC-5 and SC-21 were submitted for laboratory analysis.

2.1 Field Screening

2.1.1 Volatile Organic Compounds

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

2.1.2 Total Petroleum Hydrocarbons

Field TPH samples were analyzed per 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.*

2.2 Laboratory Analyses

The composite soil samples (SC-1 through SC-5 and SC-21) collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil samples SC-1 through SC-5 and SC-21 were laboratory analyzed per Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 Requirements, which included the following:

- VOCs per USEPA Methods 8015/8021: *total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX)*;
- Polynuclear Aromatic Hydrocarbons (PAHs) per USEPA Method 8270C: *acenaphthene, anthracene, benzo(A)anthracene, benzo(B)fluoranthene, benzo(K)fluoranthene, benzo(A)pyrene, chrysene, dibenzo(A,H)anthracene, fluoranthene, fluorene, indeno(1,2,3,C,D)pyrene, naphthalene, and pyrene*;
- Inorganics: *electrical conductivity, sodium adsorption ratio, and pH;* and
- Metals per USEPA Method 6010B and 7471: *arsenic, barium, cadmium, chromium (III), chromium (VI), copper, lead, mercury, nickel, selenium, silver, and zinc.*

2.3 Field Screening and Laboratory Analytical Results

On January 25, 2013, release assessment field screening results for VOCs via OVM showed concentrations ranging from 0.1 ppm in SB-5 up to 773 ppm in SB-1. Field TPH concentrations ranged from less than 20 mg/kg in SB-5 through SB-9 to greater than 2,500 mg/kg in SB-1.

On March 7, 2013, release assessment field screening results for VOCs via OVM showed concentrations ranging from 2.5 ppm in SB-10 up to 1,040 ppm in SB-18. Field TPH

concentrations ranged from 39.5 mg/kg in SB-15 to greater than 2,500 mg/kg in SB-16 and SB-18.

On May 21, 2013, final excavation field screening results for VOCs via OVM showed concentrations ranging from 0.6 ppm (SC-10) to 218 ppm (SC-8) in Area A; from 1.4 ppm (SC-15) to 58.9 ppm (SC-12) in Area B; and from 0.4 ppm (SC-19) to 64.3 ppm (SC-20) in Area C. Field TPH concentrations ranged from 34.0 mg/kg (SC-10) to 107 mg/kg (SC-7) in Area A; from 46.6 mg/kg (SC-11) to 100 mg/kg (SC-12) in Area B; and from 46.6 mg/kg (SC-18) to 484 mg/kg (SC-20) in Area C. Results are included below in Table 1 and on Figures 3 through 5. The AES Field Screening Reports are attached.

Table 1. Soil Field Screening Results
Ute #12 Initial Release Assessments and Final Excavation
December 2012 through May 2013

Sample ID	*Date Sampled*	*Sample Depth (ft bgs)*	*VOCs OVM Reading (ppm)*	*Field TPH (mg/kg)*
	UMUT Standards*		*--*	***500***
SB-1	1/25/13	0.5	773	**>2,500**
		2	21.1	NA
		4	27.0	NA
		6	24.4	NA
		8	11.1	34.4
SB-2	1/25/13	0.5	12.2	41.4
		2	8.6	NA
		4	10.1	NA
		6	5.7	NA
		8	7.2	82.5
SB-3	1/25/13	0.5	2.5	NA
		2	1.9	NA
		3.5	1.2	40.0
SB-4	1/25/13	0.5	27.5	26.3
		1.5	2.1	NA
		4	1.1	NA
		6	0.9	NA
		8	5.7	30.4
SB-5	1/25/13	0.5	70.3	**658**
		2	2.2	NA
		3	0.1	<20.0
SB-6	1/25/13	0.5	15.4	31.8
		1	5.8	<20.0

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)
	UMUT Standards*		*--*	***500***
SB-7	1/25/13	0.5	1.7	26.3
		2	17.9	NA
		4	19.1	NA
		6	1.2	NA
		8	1.5	<20.0
SB-8	1/25/13	0.5	0.7	<20.0
		2	0.6	NA
		4	0.7	<20.0
SB-9	1/25/13	0.5	1.1	<20.0
		2	3.1	NA
		4	6.5	NA
		6	8.0	NA
		8	9.9	<20.0
SB-10	3/7/13	Surface	3.3	47.8
		2	2.5	50.6
		4	9.1	56.1
SB-11	3/7/13	Surface	5.5	68.5
		2	7.3	54.7
SB-12	3/7/13	Surface	11.8	151
		2	4.7	NA
		4	5.8	NA
SB-13	3/7/13	Surface	11.2	65.8
		2	5.7	NA
		4	5.4	NA
SB-14	3/7/13	Surface	2.6	54.7
SB-15	3/7/13	Surface	4.9	39.5
		1	4.0	NA
SB-16	3/7/13	Surface	319	**>2,500**
		2	13.1	52.0
SB-17	3/7/13	Surface	12.3	93.4
		2	8.1	NA
SB-18	3/7/13	Surface	1,040	**>2,500**
		2	63.1	139
SB-19	3/7/13	Surface	7.2	52.0
		2	6.7	NA
SB-20	3/7/13	Surface	5.5	NA
SC-6	5/21/13	1 to 3	0.9	38.2

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)
	UMUT Standards*		--	500
SC-7	5/21/13	1 to 3	149	107
SC-8	5/21/13	1 to 3	218	38.2
SC-9	5/21/13	1 to 3	189	52.3
SC-10	5/21/13	3	0.6	34.0
SC-11	5/21/13	1 to 3	1.6	46.6
SC-12	5/21/13	1 to 3	58.9	100
SC-13	5/21/13	1 to 3	1.8	50.9
SC-14	5/21/13	1 to 3	2.1	48.1
SC-15	5/21/13	3	1.4	53.7
SC-16	5/21/13	1 to 2.5	4.8	52.3
SC-17	5/21/13	1 to 2.5	1.9	59.3
SC-18	5/21/13	1 to 2.5	2.1	46.6
SC-19	5/21/13	1 to 2.5	0.4	69.1
SC-20	5/21/13	2.5	64.3	484

NA – Not Analyzed;
*UMUT Standards of Spill Clean-up and Reclamation (based on Colorado Oil and Gas Commission Standards)

Laboratory analytical results for the composite samples SC-1 through SC-5 and SC-21 are included below in Table 2, and laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results
Ute #12 Initial Release Assessments and Final Excavation
December 2012 through May 2013

Analytical Parameter	SC-1 12/6/12	SC-2 1/25/13	SC-3 3/29/13	SC-4 3/29/13	SC-5 3/29/13	SC-21 5/22/13	UMUT Standard*
Benzene (mg/kg)	<0.96	<0.19	<0.047	<0.047	<0.47	<0.047	0.17
Toluene (mg/kg)	<0.96	0.021	<0.047	<0.047	<0.47	<0.047	85
Ethylbenzene (mg/kg)	1.1	0.079	<0.047	<0.047	0.14	<0.047	100
Total Xylenes (mg/kg)	15	0.32	<0.093	<0.093	5.7	0.014	175
GRO (mg/kg)	**370**	**44**	<4.7	<4.7	**580**	<4.7	
DRO (mg/kg)	**11,000**	**2,200**	53	<10	**850**	22	500
MRO (mg/kg)	**NA**	**<500**	<52	<51	**<51**	<50	

Analytical Parameter	***SC-1 12/6/12***	***SC-2 1/25/13***	***SC-3 3/29/13***	***SC-4 3/29/13***	***SC-5 3/29/13***	***SC-21 5/22/13***	***UMUT Standard****
Acenaphthene (mg/kg)	<0.40	<0.10	<0.020	<0.020	0.31	<0.020	1,000
Anthracene (mg/kg)	<0.040	<0.020	<0.020	<0.020	<0.020	<0.020	1,000
Benzo(A)anthracene (mg/kg)	<0.040	<0.020	<0.020	<0.020	0.023	<0.020	0.22
Benzo(B)fluoranthene (mg/kg)	<0.040	0.0050	<0.020	0.0084	0.037	0.012	0.22
Benzo(K)fluoranthene (mg/kg)	<0.040	<0.020	<0.020	<0.020	0.010	0.0083	2.2
Benzo(A)pyrene (mg/kg)	<0.040	<0.020	<0.020	<0.020	0.021	<0.020	0.022
Chrysene (mg/kg)	<0.040	<0.020	<0.020	<0.020	0.023	<0.020	22
Dibenzo(A,H) anthracene(mg/kg)	<0.040	<0.020	<0.020	<0.020	<0.020	<0.020	0.022
Fluoranthene (mg/kg)	<0.040	<0.020	0.0043	0.0037	0.051	<0.020	1,000
Fluorene (mg/kg)	0.54	<0.10	<0.020	<0.020	0.65	<0.020	1,000
Indeno(1,2,3,C,D) pyrene (mg/kg)	<0.040	<0.020	<0.020	<0.020	<0.020	<0.020	0.22
Naphthalene (mg/kg)	4.1	0.46	0.0047	0.0047	0.56	<0.020	23
Pyrene (mg/kg)	<0.040	<0.020	<0.020	<0.020	0.054	<0.020	1,000
Electrical Conductivity (µmhos/cm)	**6,900**	**5,200**	**5,000**	1,900	**4,200**	2,400	<4,000
Sodium Adsorption Ratio	**89**	**63**	**91**	3.0	**60**	**34**	<12
pH	8.12	8.2	8.7	7.9	8.4	8.8	6-9
*Arsenic (mg/kg)**	**7.1**	**1.9**	**<3.1**	**<3.1**	**<3.1**	**4.0**	0.39
Barium (mg/kg)	150	160	190	130	130	200	15,000
Cadmium (mg/kg)	<0.10	0.037	<0.50	<0.50	<0.50	<0.20	70
Chromium (III) (mg/kg)	4.2	4.9	6.4	7.7	5.2	8.5	120,000
Chromium (VI) (mg/kg)	<2.0	<2.0	<2.0	<50	<2.0	<10	23
Copper (mg/kg)	8.5	9.0	10	9.5	9.7	11	3,100
Lead (mg/kg)	3.8	3.5	4.4	9.1	5.4	7.7	400

Analytical Parameter	***SC-1 12/6/12***	***SC-2 1/25/13***	***SC-3 3/29/13***	***SC-4 3/29/13***	***SC-5 3/29/13***	***SC-21 5/22/13***	***UMUT Standard****
Mercury (mg/kg)	<0.033	0.020	0.0079	0.043	0.0063	0.036	23
Nickel (mg/kg)	3.6	3.7	5.0	7.6	4.4	9.1	1,600
Selenium (mg/kg)	<2.5	<2.5	<12	<12	<12	<5.0	390
Silver (mg/kg)	<0.25	<0.25	<1.2	<1.2	<1.3	<0.50	390
Zinc (mg/kg)	24	24	37	44	28	47	23,000

*Per Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1

3.0 Conclusions and Recommendations

AES conducted initial assessments of four release areas at the Ute #12, located in San Juan County, New Mexico, from December 2012 through March 2013. Based on visual observations, field screening, and laboratory analytical results from the assessments, three excavation areas (A, B, and C) were recommended. On May 21, 2013, AES returned to conduct confirmation sampling on the final excavation areas. Soil arsenic concentrations were reported above the UMUT threshold of 0.39 mg/kg (which is based on the COGCC residential standard) in SC-1, SC-2, and SC-21; however, background arsenic concentrations in the general vicinity are known to be elevated. Additionally, sodium adsorption ratios exceeded UMUT Standards, which is consistent with previous work experience in the general area of this location.

AREA A: Releases #1 and #2

On December 6, 2012, AES completed an initial assessment for an approximately 39 bbl produced water and condensate release that occurred when the northernmost tank in the tank battery was overfilled. The assessment included the collection of one 5-point composite soil sample (SC-1) from visibly stained surface soils in the release area for laboratory analysis. Laboratory analytical results confirmed TPH concentrations above UMUT Standards.

On January 25, 2013, AES completed an initial assessment for an approximately 35 bbl produced water release that resulted from a corrosion hole in the northernmost tank in the tank battery. The assessment included collection and field screening of 36 soil samples from 9 soil borings (SB-1 through SB-9) within the release area. Additionally, one soil sample (SC-2) was composited from surface samples collected in SB-1 through SB-9 for laboratory analysis. Field screening and laboratory analytical results confirmed

TPH concentrations above UMUT Standards, and an area of excavation (Area A) was recommended that would remove soils impacted by both Release #1 and #2.

On May 21, 2013, AES conducted confirmation sampling of the final excavation for Area A, which measured approximately 475 feet^2 by 3 feet in depth. Field screening results of the excavation extents showed that VOC and TPH concentrations were below applicable UMUT Standards for all of the final four walls and the base of the excavation.

AREA B: Release #3

On March 7, 2013, AES completed an initial assessment for an approximately 230 bbl release of produced water that resulted from a corrosion hole in the southernmost tank in the tank battery. The assessment included collection and field screening of 23 soil samples from 11 soil borings (SB-10 through SB-20) within the release area. Additionally, three soil samples (SC-3 through SC-5) were composited from surface samples collected in SB-10 through SB-20. Field screening and laboratory analytical results confirmed TPH concentrations above UMUT standards, and an area of excavation (Area B) was recommended that would remove soils impacted by Release #3.

On May 21, 2013, AES conducted confirmation sampling of the final excavation for Area B, which measured approximately 655 feet^2 by 3 feet in depth. Field screening results of the excavation extents showed that VOC and TPH concentrations were below applicable UMUT standards for all of the final four walls and the base of the excavation.

AREA C: Release #4

On May 21, 2013, a release from the former drip tank was identified, and AES personnel recommended an area of excavation based on visual observations and consultation with CoP personnel. AES conducted confirmation sampling of the final excavation for Area C, which measured approximately 500 feet^2 by 2.5 feet in depth. Field screening results of the excavation extents showed that VOC and TPH concentrations were below applicable UMUT standards for all of the final four walls and the base of the excavation. In addition, a composite sample from the walls and base of the excavation (SC-21) was submitted for confirmation laboratory analysis. All parameters were below UMUT Standards, with the exception of sodium adsorption ratio and arsenic, which were consistent with levels typically observed in regional soils.

Based on visual observations, field screening and laboratory analytical results, CoP received approval to backfill the excavations (Areas A, B, and C) from Scott Clow of UMUT Environmental Programs Department and Ryan Joyner of Colorado Bureau of Land Management on May 23, 2013.

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

Sincerely,

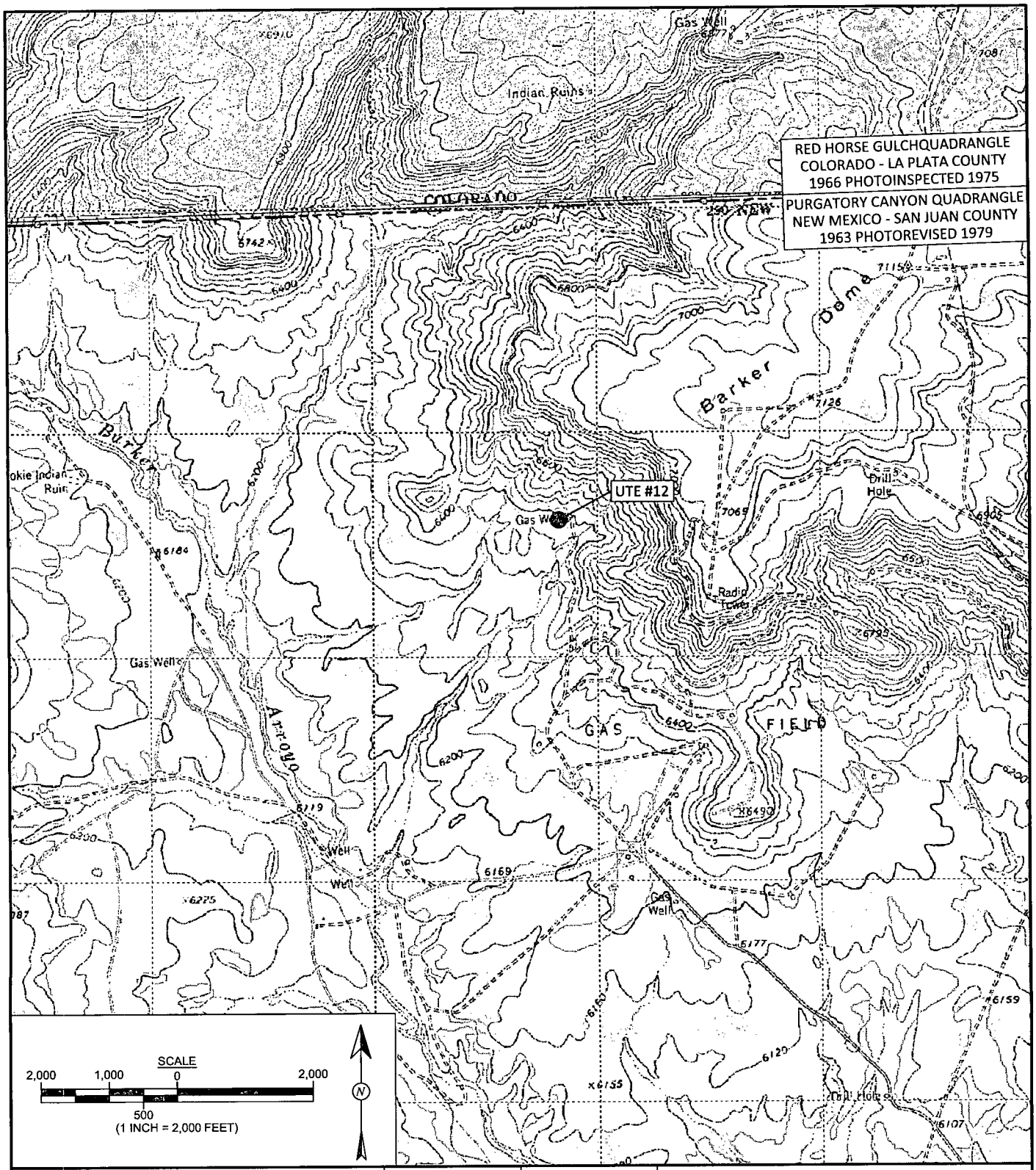
Landrea Cupps
Environmental Scientist

Elizabeth McNally, PE

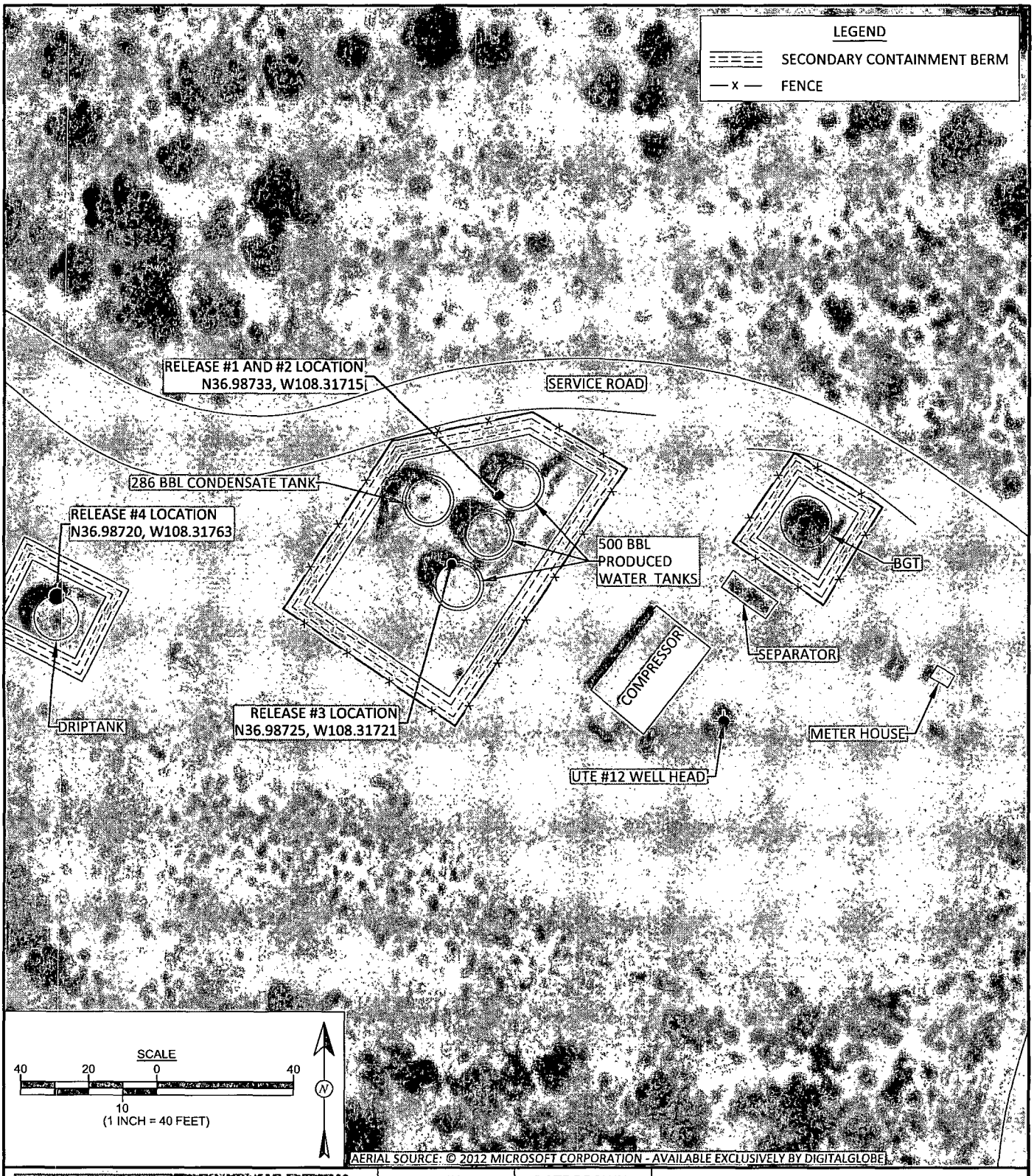
Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map
Figure 3. Initial Assessment Sample Locations and Results, December 2012
Figure 4. Initial Assessment Sample Locations and Results, January 2013
Figure 5. Initial Assessment Sample Locations and Results, March 2013
Figure 6. Final Excavation Sample Locations and Results, May 2013
AES Field Screening Reports 012513, 030713, and 052113
Hall Analytical Report 1212360, 1301920, 1303459, and 1305949

R:\Animas 2000\Dropbox\2013 Projects\ConocoPhillips\Ute 12\CoP Ute #12 Initial Release Assessments and Final Excavation Report 070213.docx



Animas Environmental Services, LLC	**DRAWN BY:** C. Lameman	**DATE DRAWN:** January 31, 2013	**FIGURE 1**
	REVISIONS BY: C. Lameman	**DATE REVISED:** June 6, 2013	**TOPOGRAPHIC SITE LOCATION MAP** ConocoPhillips UTE #12 SAN JUAN COUNTY, NEW MEXICO NE¼ SW¼, SECTION 16, T32N, R14W N36.98711, W108.31692
	CHECKED BY: D. Watson	**DATE CHECKED:** June 6, 2013	
	APPROVED BY: E. McNally	**DATE APPROVED:** June 6, 2013	



Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** March 8, 2013
REVISIONS BY: C. Lameman	**DATE REVISED:** June 6, 2013
CHECKED BY: D. Watson	**DATE CHECKED:** June 6, 2013
APPROVED BY: E. McNally	**DATE APPROVED:** June 6, 2013

FIGURE 2

AERIAL SITE MAP
ConocoPhillips
UTE #12
SAN JUAN COUNTY, NEW MEXICO
NE¼ SW¼, SECTION 16, T32N, R14W
N36.98711, W108.31692

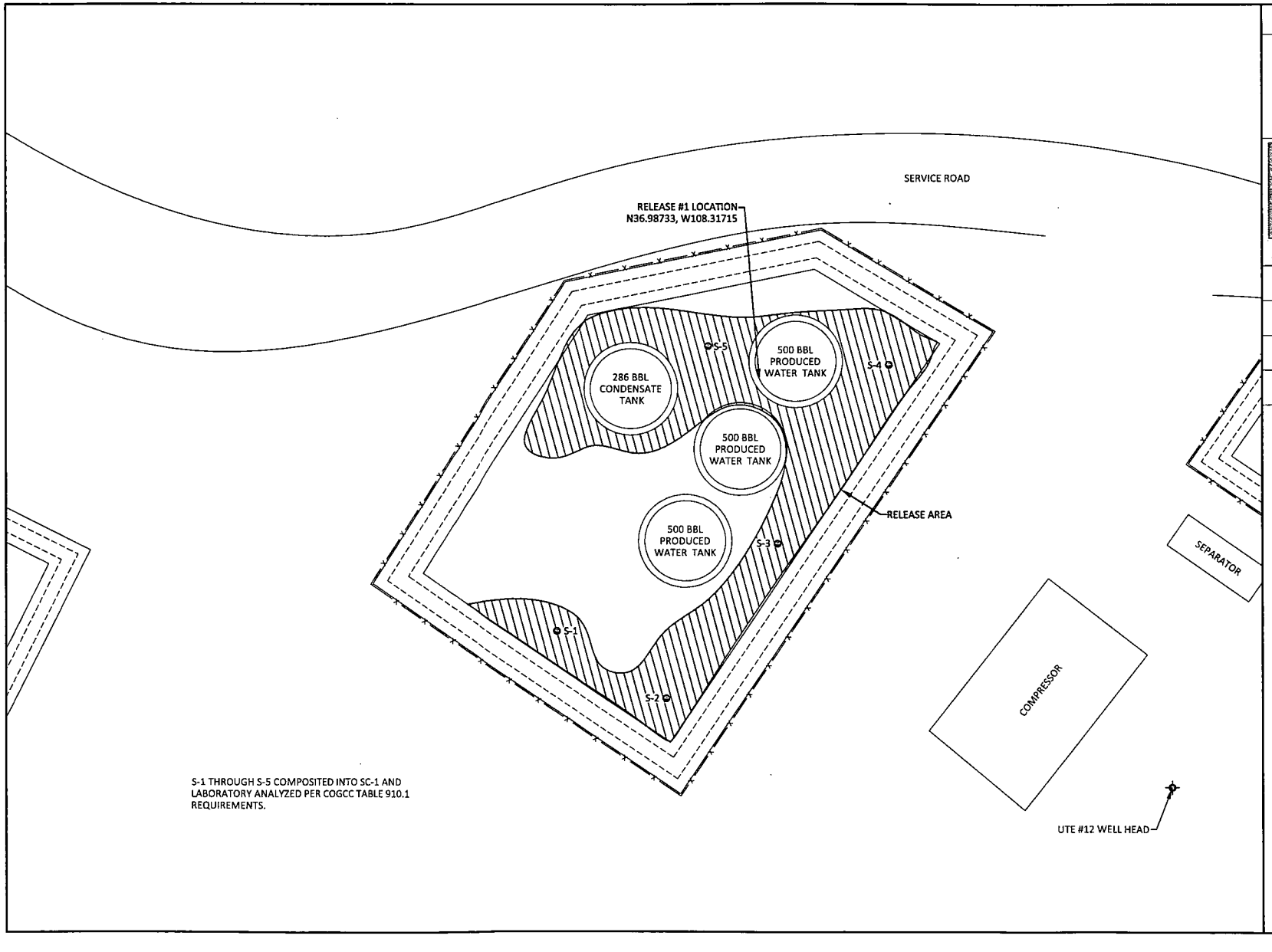


FIGURE 3

INITIAL ASSESSMENT
SAMPLE LOCATIONS
DECEMBER 2012
ConocoPhillips
UTE #12
SAN JUAN COUNTY, NEW MEXICO
NE¼ SW¼, SECTION 16, T32N, R14W
N36.98711, W108.31692

Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
C. Lameman	January 29, 2013
REVISIONS BY:	**DATE REVISED:**
C. Lameman	June 6, 2013
CHECKED BY:	**DATE CHECKED:**
D. Watson	June 6, 2013
APPROVED BY:	**DATE APPROVED:**
E. McNally	June 6, 2013

LEGEND

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

N

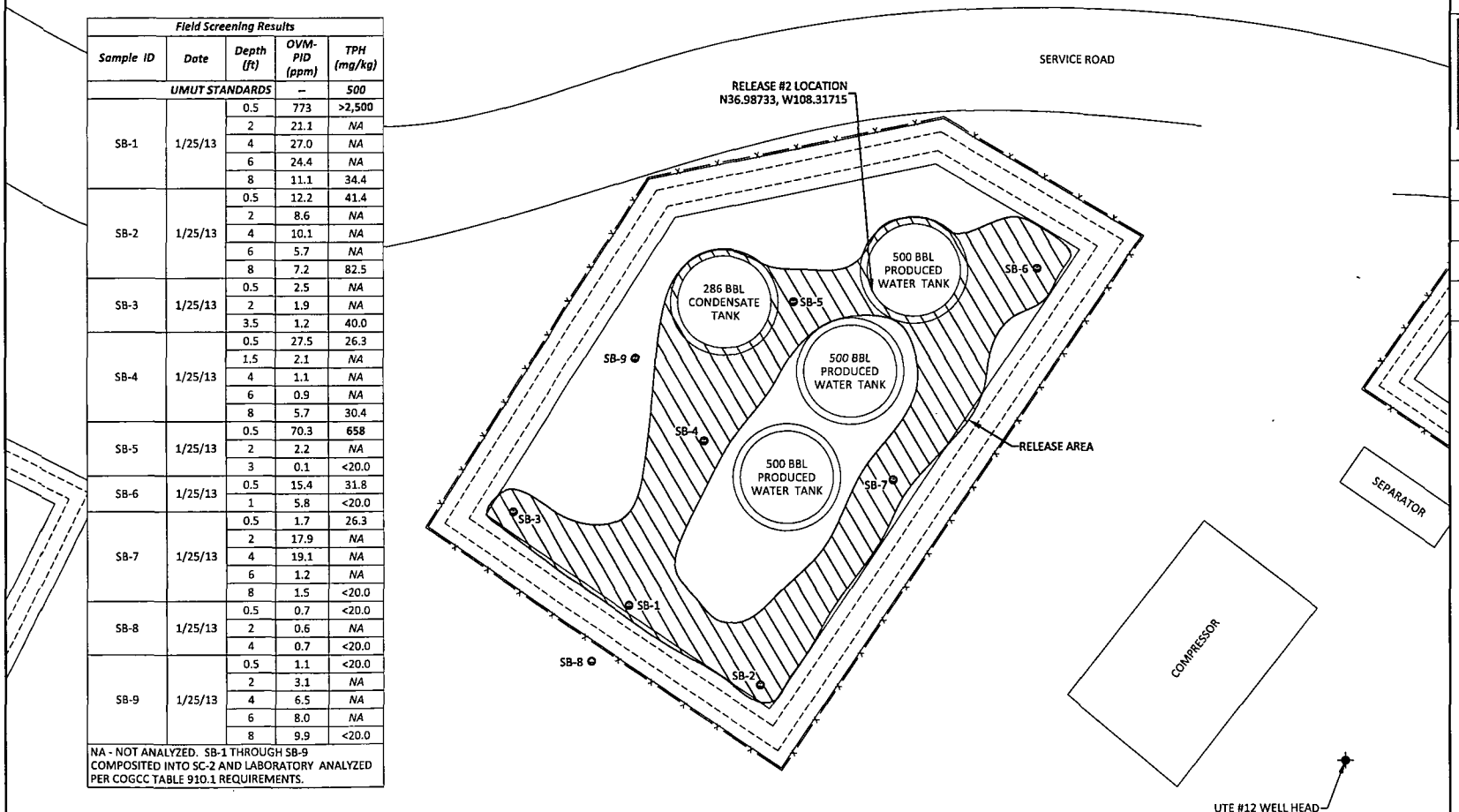
SCALE
10 6 0 10
2
(1 INCH = 10 FEET)

FIGURE 4

INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS
JANUARY 2013
ConocoPhillips
UTE #12
SAN JUAN COUNTY, NEW MEXICO
NE¼ SW¼, SECTION 16, T32N, R14W
N36.98711, W108.31692

Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
UMUT STANDARDS		--		500
SB-1	1/25/13	0.5	773	>2,500
		2	21.1	NA
		4	27.0	NA
		6	24.4	NA
		8	11.1	34.4
SB-2	1/25/13	0.5	12.2	41.4
		2	8.6	NA
		4	10.1	NA
		6	5.7	NA
		8	7.2	82.5
SB-3	1/25/13	0.5	2.5	NA
		2	1.9	NA
		3.5	1.2	40.0
SB-4	1/25/13	0.5	27.5	26.3
		1.5	2.1	NA
		4	1.1	NA
		6	0.9	NA
		8	5.7	30.4
SB-5	1/25/13	0.5	70.3	658
		2	2.2	NA
		3	0.1	<20.0
SB-6	1/25/13	0.5	15.4	31.8
		1	5.8	<20.0
SB-7	1/25/13	0.5	1.7	26.3
		2	17.9	NA
		4	19.1	NA
		6	1.2	NA
		8	1.5	<20.0
SB-8	1/25/13	0.5	0.7	<20.0
		2	0.6	NA
		4	0.7	<20.0
SB-9	1/25/13	0.5	1.1	<20.0
		2	3.1	NA
		4	6.5	NA
		6	8.0	NA
		8	9.9	<20.0

NA - NOT ANALYZED. SB-1 THROUGH SB-9 COMPOSITED INTO SC-2 AND LABORATORY ANALYZED PER COGCC TABLE 910.1 REQUIREMENTS.



Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
C. Lameman	January 29, 2013
REVISIONS BY:	**DATE REVISED:**
C. Lameman	June 6, 2013
CHECKED BY:	**DATE CHECKED:**
D. Watson	June 6, 2013
APPROVED BY:	**DATE APPROVED:**
E. McNally	June 6, 2013

LEGEND

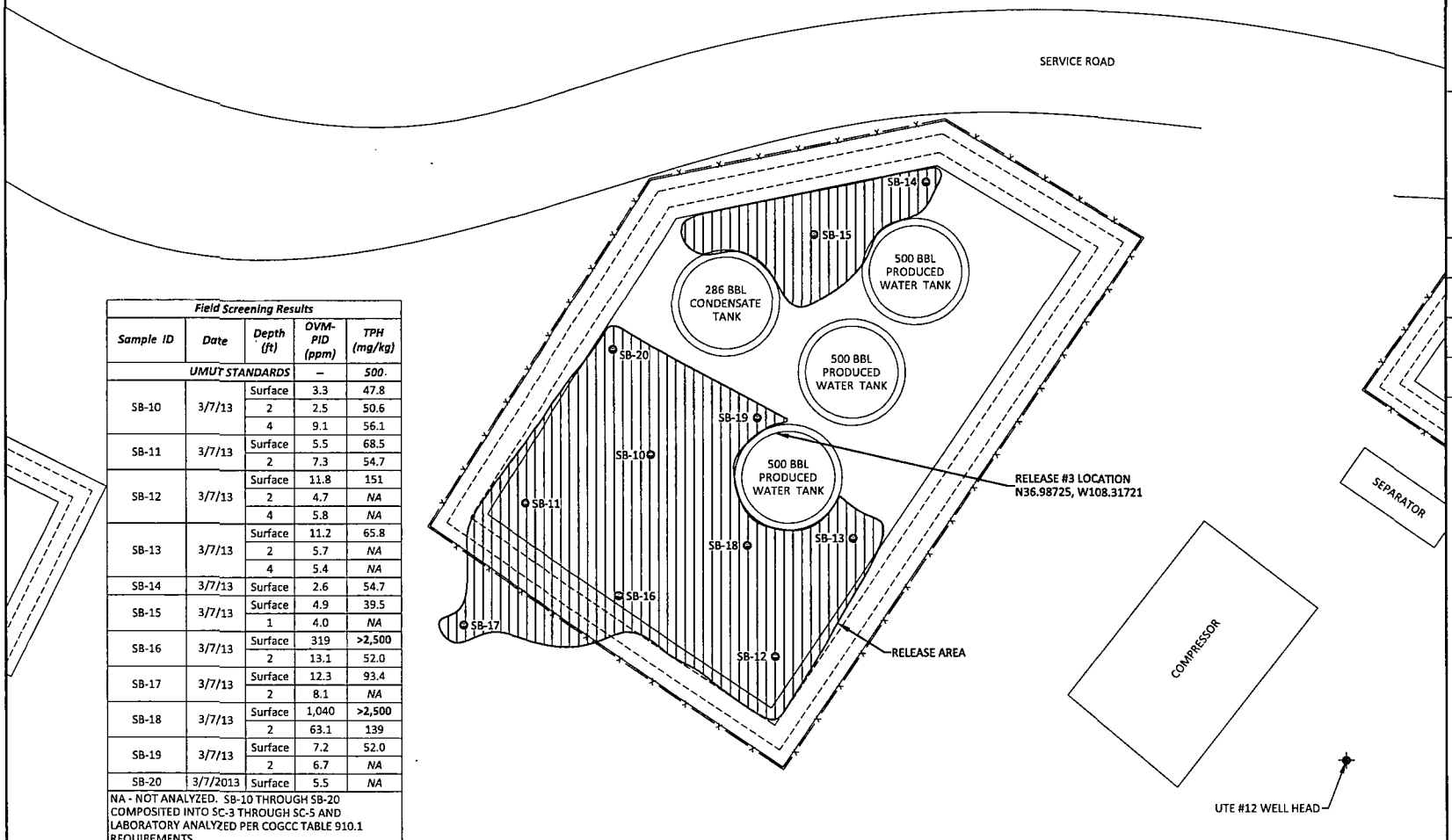
- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- —x— FENCE

N

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

FIGURE 5

INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS
MARCH 2013
ConocoPhillips
UTE #12
SAN JUAN COUNTY, NEW MEXICO
NE¼ SW¼, SECTION 16, T32N, R14W
N36.98711, W108.31692



Field Screening Results				
Sample ID	*Date*	*Depth (ft)*	*OVM-PID (ppm)*	*TPH (mg/kg)*
UMUT STANDARDS			–	*500*
SB-10	3/7/13	Surface	3.3	47.8
		2	2.5	50.6
		4	9.1	56.1
SB-11	3/7/13	Surface	5.5	68.5
		2	7.3	54.7
SB-12	3/7/13	Surface	11.8	151
		2	4.7	*NA*
		4	5.8	*NA*
SB-13	3/7/13	Surface	11.2	65.8
		2	5.7	*NA*
		4	5.4	*NA*
SB-14	3/7/13	Surface	2.6	54.7
SB-15	3/7/13	Surface	4.9	39.5
		1	4.0	*NA*
SB-16	3/7/13	Surface	319	>2,500
		2	13.1	52.0
SB-17	3/7/13	Surface	12.3	93.4
		2	8.1	*NA*
SB-18	3/7/13	Surface	1,040	>2,500
		2	63.1	139
SB-19	3/7/13	Surface	7.2	52.0
		2	6.7	*NA*
SB-20	3/7/2013	Surface	5.5	*NA*

NA - NOT ANALYZED. SB-10 THROUGH SB-20 COMPOSITED INTO SC-3 THROUGH SC-5 AND LABORATORY ANALYZED PER COGCC TABLE 910.1 REQUIREMENTS.

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** March 8, 2013
REVISIONS BY: C. Lameman	**DATE REVISED:** June 6, 2013
CHECKED BY: D. Watson	**DATE CHECKED:** June 6, 2013
APPROVED BY: E. McNally	**DATE APPROVED:** June 6, 2013

LEGEND

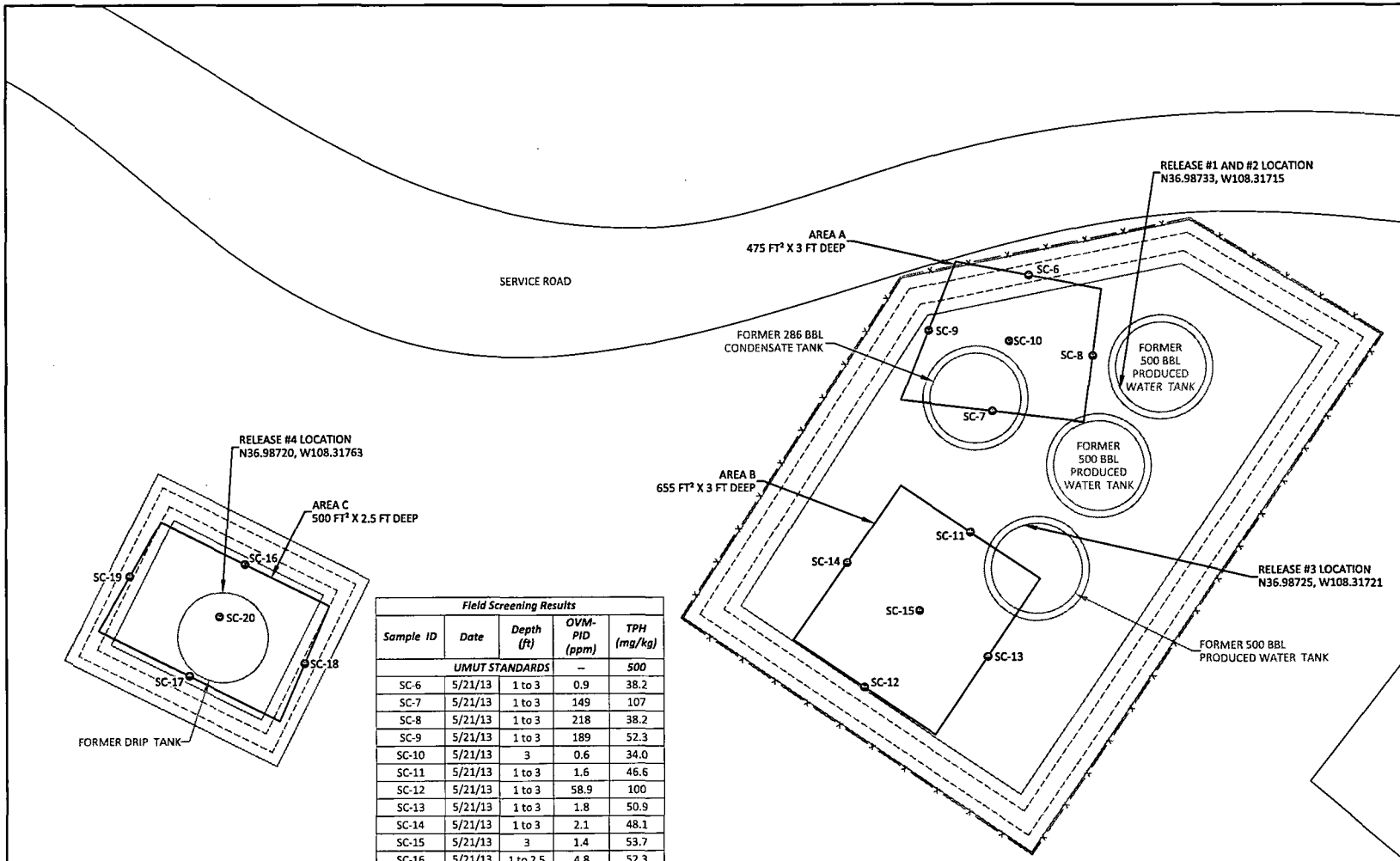
- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- —x— FENCE

N

SCALE
15 9 0 15
3
(1 INCH = 15 FEET)

FIGURE 6

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS
MAY 2013
ConocoPhillips
UTE #12
SAN JUAN COUNTY, NEW MEXICO
NE¼ SW¼, SECTION 16, T32N, R14W
N36.98711, W108.31692



Field Screening Results				
Sample ID	*Date*	*Depth (ft)*	*OVM-PID (ppm)*	*TPH (mg/kg)*
	UMUT STANDARDS		--	*500*
SC-6	5/21/13	1 to 3	0.9	38.2
SC-7	5/21/13	1 to 3	149	107
SC-8	5/21/13	1 to 3	218	38.2
SC-9	5/21/13	1 to 3	189	52.3
SC-10	5/21/13	3	0.6	34.0
SC-11	5/21/13	1 to 3	1.6	46.6
SC-12	5/21/13	1 to 3	58.9	100
SC-13	5/21/13	1 to 3	1.8	50.9
SC-14	5/21/13	1 to 3	2.1	48.1
SC-15	5/21/13	3	1.4	53.7
SC-16	5/21/13	1 to 2.5	4.8	52.3
SC-17	5/21/13	1 to 2.5	1.9	59.3
SC-18	5/21/13	1 to 2.5	2.1	46.6
SC-19	5/21/13	1 to 2.5	0.4	69.1
SC-20	5/21/13	2.5	64.3	484

SC-16 THROUGH SC-20 COMPOSITED INTO SC-21 AND *LABORATORY ANALYZED PER COGCC TABLE 910.1* REQUIREMENTS.

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** May 28, 2013
REVISIONS BY: C. Lameman	**DATE REVISED:** June 6, 2013
CHECKED BY: D. Watson	**DATE CHECKED:** June 6, 2013
APPROVED BY: E. McNally	**DATE APPROVED:** June 6, 2013

LEGEND

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

SCALE
15 9 0 15
3
(1 INCH = 15 FEET)

AES Field Screening Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: Ute #12

Date: 1/25/2013

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
SB-1 @ 0.5'	1/25/2013	11:30	773	12:43	>2,500	20.0	1	KC
SB-1 @ 2'	1/25/2013	11:33	21.1	*Not Analyzed for TPH*				
SB-1 @ 4'	1/25/2013	11:37	27.0	*Not Analyzed for TPH*				
SB-1 @ 6'	1/25/2013	11:41	24.4	*Not Analyzed for TPH*				
SB-1 @ 8'	1/25/2013	11:45	11.1	12:45	34.4	20.0	1	KC
SB-2 @ 0.5'	1/25/2013	11:51	12.2	13:43	41.4	20.0	1	KC
SB-2 @ 2'	1/25/2013	11:54	8.6	*Not Analyzed for TPH*				
SB-2 @ 4'	1/25/2013	11:57	10.1	*Not Analyzed for TPH*				
SB-2 @ 6'	1/25/2013	11:59	5.7	*Not Analyzed for TPH*				
SB-2 @ 8'	1/25/2013	12:04	7.2	13:46	82.5	20.0	1	KC
SB-3 @ 0.5'	1/25/2013	12:07	2.5	*Not Analyzed for TPH*				
SB-3 @ 2'	1/25/2013	12:11	1.9	*Not Analyzed for TPH*				
SB-3 @ 3.5'	1/25/2013	12:15	1.2	13:48	40.0	20.0	1	KC
SB-4 @ 0.5'	1/25/2013	12:20	27.5	14:58	26.3	20.0	1	KC
SB-4 @ 1.5'	1/25/2013	12:24	2.1	*Not Analyzed for TPH*				
SB-4 @ 4'	1/25/2013	12:28	1.1	*Not Analyzed for TPH*				
SB-4 @ 6'	1/25/2013	12:31	0.9	*Not Analyzed for TPH*				
SB-4 @ 8'	1/25/2013	12:35	5.7	15:02	30.4	20.0	1	KC
SB-5 @ 0.5'	1/25/2013	12:40	70.3	15:06	658	20.0	1	KC
SB-5 @ 2'	1/25/2013	12:44	2.2	*Not Analyzed for TPH*				
SB-5 @ 3'	1/25/2013	12:48	0.1	15:10	18.1	20.0	1	KC
SB-6 @ 0.5'	1/25/2013	12:53	15.4	15:14	31.8	20.0	1	KC

Report Finalized: 01/25/13

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-6 @ 1'	1/25/2013	12:57	5.8	15:18	19.4	20.0	1	KC
SB-7 @ 0.5'	1/25/2013	13:02	1.7	15:21	26.3	20.0	1	KC
SB-7 @ 2'	1/25/2013	13:06	17.9	*Not Analyzed for TPH*				
SB-7 @ 4'	1/25/2013	13:10	19.1	*Not Analyzed for TPH*				
SB-7 @ 6'	1/25/2013	13:14	1.2	*Not Analyzed for TPH*				
SB-7 @ 8'	1/25/2013	13:18	1.5	15:25	18.1	20.0	1	KC
SB-8 @ 0.5'	1/25/2013	13:23	0.7	15:29	16.7	20.0	1	KC
SB-8 @ 2'	1/25/2013	13:27	0.6	*Not Analyzed for TPH*				
SB-8 @ 4'	1/25/2013	13:31	0.7	15:32	18.1	20.0	1	KC
SB-9 @ 0.5'	1/25/2013	13:35	1.1	15:36	15.3	20.0	1	KC
SB-9 @ 2'	1/25/2013	13:39	3.1	*Not Analyzed for TPH*				
SB-9 @ 4'	1/25/2013	13:43	6.5	*Not Analyzed for TPH*				
SB-9 @ 6'	1/25/2013	13:47	8.0	*Not Analyzed for TPH*				
SB-9 @ 8'	1/25/2013	13:52	9.9	15:39	18.1	20.0	1	KC

Total Petroleum Hydrocarbons - USEPA 418.1

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

Analyst:

AES Field Screening Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: Ute #12

Date: 3/7/2013

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
SB-10 @ Surface	3/7/2013	13:57	3.3	14:34	47.8	20.0	1	DAW
SB-10 @ 2'	3/7/2013	14:02	2.5	14:37	50.6	20.0	1	DAW
SB-10 @ 4'	3/7/2013	14:05	9.1	14:39	56.1	20.0	1	DAW
SB-11 @ Surface	3/7/2013	14:08	5.5	14:42	68.5	20.0	1	DAW
SB-11 @ 2'	3/7/2013	14:13	7.3	14:44	54.7	20.0	1	DAW
SB-12 @ Surface	3/7/2013	14:17	11.8	15:15	151	20.0	1	DAW
SB-12 @ 2'	3/7/2013	14:21	4.7	*Not Analyzed for TPH*				
SB-12 @ 4'	3/7/2013	14:23	5.8	*Not Analyzed for TPH*				
SB-13 @ Surface	3/7/2013	14:26	11.2	15:17	65.8	20.0	1	DAW
SB-13 @ 2'	3/7/2013	14:31	5.7	*Not Analyzed for TPH*				
SB-13 @ 4'	3/7/2013	14:33	5.4	*Not Analyzed for TPH*				
SB-14 @ Surface	3/7/2013	14:44	2.6	15:19	54.7	20.0	1	DAW
SB-15 @ Surface	3/7/2013	14:54	4.9	15:21	39.5	20.0	1	DAW
SB-15 @ 1'	3/7/2013	14:58	4.0	*Not Analyzed for TPH*				
SB-16 @ Surface	3/7/2013	15:04	319	15:25	>2,500	20.0	1	DAW
SB-16 @ 2'	3/7/2013	15:36	13.1	16:04	52.0	20.0	1	DAW
SB-17 @ Surface	3/7/2013	15:11	12.3	15:53	93.4	20.0	1	DAW
SB-17 @ 2'	3/7/2013	15:15	8.1	*Not Analyzed for TPH*				
SB-18 @ Surface	3/7/2013	15:38	1,040	16:07	>2,500	20.0	1	DAW
SB-18 @ 2'	3/7/2013	15:42	63.1	16:13	139	20.0	1	DAW
SB-19 @ Surface	3/7/2013	15:44	7.2	16:11	52.0	20.0	1	DAW
SB-19 @ 2'	3/7/2013	15:48	6.7	*Not Analyzed for TPH*				

Report Finalized: 03/07/13

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-20 @ Surface	3/7/2013	15:53	5.5	*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

Analyst: Deborah Watts

AES Field Screening Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

Client: ConocoPhillips
Project Location: Ute #12
Date: 5/21/2013
Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-6	5/21/2013	11:48	Area A North Wall	0.9	11:55	38.2	20.0	1	KC
SC-7	5/21/2013	11:49	Area A South Wall	149	11:57	107	20.0	1	KC
SC-8	5/21/2013	11:50	Area A East Wall	218	12:00	38.2	20.0	1	KC
SC-9	5/21/2013	11:51	Area A West Wall	189	12:03	52.3	20.0	1	KC
SC-10	5/21/2013	11:52	Area A Base	0.6	12:05	34.0	20.0	1	KC
SC-11	5/21/2013	12:41	Area B North Wall	1.6	12:47	46.6	20.0	1	KC
SC-12	5/21/2013	12:43	Area B South Wall	58.9	12:50	100	20.0	1	KC
SC-13	5/21/2013	12:44	Area B East Wall	1.8	12:53	50.9	20.0	1	KC
SC-14	5/21/2013	12:45	Area B West Wall	2.1	12:55	48.1	20.0	1	KC
SC-15	5/21/2013	12:46	Area B Base	1.4	12:58	53.7	20.0	1	KC
SC-16	5/21/2013	13:40	Area C North Wall	4.8	14:51	52.3	20.0	1	KC
SC-17	5/21/2013	13:31	Area C South Wall	1.9	14:44	59.3	20.0	1	KC
SC-18	5/21/2013	13:20	Area C East Wall	2.1	13:53	46.6	20.0	1	KC
SC-19	5/21/2013	13:30	Area C West Wall	0.4	14:50	69.1	20.0	1	KC
SC-20	5/21/2013	13:23	Area C Base	64.3	14:14	484	20.0	1	KC

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

Analyst: Kelsey Christensen

Report Finalized: 05/21/13

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

December 19, 2012

Debbie Watson

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

RE: COP Ute #12 OrderNo.: 1212360

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/7/2012 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 **1212360**
Date Reported: **12/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: COP Ute #12
Lab ID: 1212360-001 **Matrix:** SOIL

Client Sample ID: SC-1
Collection Date: 12/6/2012 1:25:00 PM
Received Date: 12/7/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	11000	200		mg/Kg	20	12/11/2012 8:41:00 AM
Surr: DNOP	0	72.4-120	S	%REC	20	12/11/2012 8:41:00 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	370	96		mg/Kg	20	12/11/2012 5:31:44 PM
Surr: BFB	178	84-116	S	%REC	20	12/11/2012 5:31:44 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.96		mg/Kg	20	12/11/2012 5:31:44 PM
Toluene	ND	0.96		mg/Kg	20	12/11/2012 5:31:44 PM
Ethylbenzene	1.1	0.96		mg/Kg	20	12/11/2012 5:31:44 PM
Xylenes, Total	15	1.9		mg/Kg	20	12/11/2012 5:31:44 PM
Surr: 4-Bromofluorobenzene	99.8	80-120		%REC	20	12/11/2012 5:31:44 PM
EPA METHOD 7471: MERCURY						Analyst: **TMG**
Mercury	ND	0.033		mg/kg	1	12/17/2012 10:00:03 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Arsenic	7.1	2.5		mg/Kg	1	12/18/2012 9:09:22 AM
Barium	150	0.50		mg/Kg	5	12/18/2012 9:42:06 AM
Cadmium	ND	0.10		mg/Kg	1	12/18/2012 9:09:22 AM
Chromium	4.2	0.30		mg/Kg	1	12/18/2012 9:09:22 AM
Copper	8.5	0.30		mg/Kg	1	12/18/2012 9:09:22 AM
Lead	3.8	0.25		mg/Kg	1	12/18/2012 9:09:22 AM
Nickel	3.6	0.50		mg/Kg	1	12/18/2012 9:09:22 AM
Selenium	ND	2.5		mg/Kg	1	12/18/2012 9:09:22 AM
Silver	ND	0.25		mg/Kg	1	12/18/2012 9:09:22 AM
Zinc	24	2.5		mg/Kg	1	12/18/2012 9:09:22 AM
SAR SOLUBLE CATIONS						Analyst: **ELS**
Calcium	1900	1.0		mg/L	1	12/18/2012 7:43:00 AM
Magnesium	390	1.0		mg/L	1	12/18/2012 7:43:00 AM
Sodium	16000	1.0		mg/L	1	12/18/2012 7:43:00 AM
Sodium Adsorption Ratio	89	0			1	12/18/2012 7:43:00 AM
EPA METHOD 8270C: PAHS						Analyst: **JDC**
Naphthalene	4.1	0.40		mg/Kg	10	12/11/2012 12:41:09 PM
1-Methylnaphthalene	2.4	0.40		mg/Kg	10	12/11/2012 12:41:09 PM
2-Methylnaphthalene	11	0.40		mg/Kg	10	12/11/2012 12:41:09 PM
Acenaphthylene	ND	0.40		mg/Kg	10	12/11/2012 12:41:09 PM
Acenaphthene	ND	0.40		mg/Kg	10	12/11/2012 12:41:09 PM
Fluorene	0.54	0.40		mg/Kg	10	12/11/2012 12:41:09 PM
Phenanthrene	0.28	0.040		mg/Kg	1	12/11/2012 12:06:02 PM
Anthracene	ND	0.040		mg/Kg	1	12/11/2012 12:06:02 PM
Fluoranthene	ND	0.040		mg/Kg	1	12/11/2012 12:06:02 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: SC-1
Project: COP Ute #12
Collection Date: 12/6/2012 1:25:00 PM
Lab ID: 1212360-001
Matrix: SOIL
Received Date: 12/7/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: PAHS						Analyst: **JDC**
Pyrene	ND	0.040		mg/Kg	1	12/11/2012 12:06:02 PM
Benz(a)anthracene	ND	0.040		mg/Kg	1	12/11/2012 12:06:02 PM
Chrysene	ND	0.040		mg/Kg	1	12/11/2012 12:06:02 PM
Benzo(b)fluoranthene	ND	0.040		mg/Kg	1	12/11/2012 12:06:02 PM
Benzo(k)fluoranthene	ND	0.040		mg/Kg	1	12/11/2012 12:06:02 PM
Benzo(a)pyrene	ND	0.040		mg/Kg	1	12/11/2012 12:06:02 PM
Dibenz(a,h)anthracene	ND	0.040		mg/Kg	1	12/11/2012 12:06:02 PM
Benzo(g,h,i)perylene	ND	0.040		mg/Kg	1	12/11/2012 12:06:02 PM
Indeno(1,2,3-cd)pyrene	ND	0.040		mg/Kg	1	12/11/2012 12:06:02 PM
Surr: Benzo(e)pyrene	48.9	44.9-129		%REC	1	12/11/2012 12:06:02 PM
Surr: N-hexadecane	0	45.4-126	S	%REC	10	12/11/2012 12:41:09 PM
CONDUCTANCE						Analyst: **TAF**
Specific Conductance	6900	1.0		µmhos/cm	1	12/19/2012 8:03:00 AM
SM4500-H+B: PH						Analyst: **IDC**
pH	8.12	1.68		pH Units	1	12/13/2012 5:15:00 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

December 17, 2012

ESC Sample # : L611141-01

Site ID :

Project # :

Date Received : December 14, 2012
Description :

Sample ID : 1212360-001B SC-1

Collected By :
Collection Date : 12/06/12 13:25

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	12/17/12	1
ORP	200		mV	2580	12/15/12	1
pH	8.1		su	9045D	12/17/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

Reported: 12/17/12 15:29 Printed: 12/17/12 15:29
L611141-01 (PH) - 8.1@22.4c

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L611141

December 17, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Chromium, Hexavalent	< 2	mg/kg			WG628065	12/17/12 13:35

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
ORP	mV	200.	190.	3.62	20	L611054-01	WG628232
Chromium, Hexavalent	mg/kg	0	0	0	20	L610592-03	WG628065
Chromium, Hexavalent	mg/kg	0.400	0.920	78.8*	20	L610592-04	WG628065
pH	su	4.60	4.60	0.434	1	L611048-01	WG628397
pH	su	8.20	8.10	0.860	1	L611452-08	WG628397

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
ORP	mV	228	234.	103.	95.6-104.	WG628232
Chromium, Hexavalent	mg/kg	261	227.	87.0	80-120	WG628065
pH	su	6.03	6.01	99.7	98-101.6	WG628397

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
ORP	mV	234.	234.	103.	95.6-104.	0	20	WG628232
Chromium, Hexavalent	mg/kg	233.	227.	89.0	80-120	2.61	20	WG628065
pH	su	6.03	6.01	100.	98-101.6	0.332	20	WG628397

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Chromium, Hexavalent	mg/kg	2.88	0	20	14.4*	75-125	L610592-02	WG628065

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Chromium, Hexavalent	mg/kg	1.24	2.88	6.20*	75-125	79.6*	20	L610592-02	WG628065

Batch number /Run number / Sample number cross reference

WG628232: R2479837: L611141-01
WG628065: R2480877: L611141-01
WG628397: R2481017: L611141-01

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212360**

19-Dec-12

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID	**MB-5158**	SampType:	**MBLK**		TestCode:	**EPA Method 8015B: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**5158**		RunNo:	**7361**				
Prep Date:	**12/7/2012**	Analysis Date:	**12/7/2012**		SeqNo:	**213505**	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	9.7		10.00		96.9	72.4	120			

Sample ID	**LCS-5158**	SampType:	**LCS**		TestCode:	**EPA Method 8015B: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**5158**		RunNo:	**7361**				
Prep Date:	**12/7/2012**	Analysis Date:	**12/7/2012**		SeqNo:	**213516**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.6	47.4	122			
Surr: DNOP	4.2		5.000		84.0	72.4	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212360**

19-Dec-12

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID **1212385-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015B: Gasoline Range**						
Client ID: **BatchQC**	Batch ID: **5186**			RunNo: **7465**						
Prep Date: **12/10/2012**	Analysis Date: **12/12/2012**			SeqNo: **216508**		Units: **mg/Kg**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.7	23.74	0	101	70	130			
Surr: BFB	1500		949.7		159	84	116			S

Sample ID **1212385-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015B: Gasoline Range**						
Client ID: **BatchQC**	Batch ID: **5186**			RunNo: **7465**						
Prep Date: **12/10/2012**	Analysis Date: **12/12/2012**			SeqNo: **216509**		Units: **mg/Kg**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.7	23.67	0	105	70	130	3.67	22.1	
Surr: BFB	1900		947.0		197	84	116	0	0	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212360**

19-Dec-12

Client: Animas Environmental Services
Project: COP Ute #12

Sample ID **mb-5196**	SampType: **MBLK**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **PBS**	Batch ID: **5196**	RunNo: **7422**
Prep Date: **12/10/2012**	Analysis Date: **12/11/2012**	SeqNo: **215077** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.020								
1-Methylnaphthalene	ND	0.020								
2-Methylnaphthalene	ND	0.020								
Acenaphthylene	ND	0.020								
Acenaphthene	ND	0.020								
Fluorene	ND	0.020								
Phenanthrene	ND	0.020								
Anthracene	ND	0.020								
Fluoranthene	ND	0.020								
Pyrene	ND	0.020								
Benz(a)anthracene	ND	0.020								
Chrysene	ND	0.020								
Benzo(b)fluoranthene	ND	0.020								
Benzo(k)fluoranthene	ND	0.020								
Benzo(a)pyrene	ND	0.020								
Dibenz(a,h)anthracene	ND	0.020								
Benzo(g,h,i)perylene	ND	0.020								
Indeno(1,2,3-cd)pyrene	ND	0.020								
Surr: Benzo(e)pyrene	0.27		0.3300		81.2	44.9	129			
Surr: N-hexadecane	1.1		1.460		72.3	45.4	126			

Sample ID **lcs-5196**	SampType: **LCS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSS**	Batch ID: **5196**	RunNo: **7422**
Prep Date: **12/10/2012**	Analysis Date: **12/11/2012**	SeqNo: **215078** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.26	0.020	0.3300	0	77.4	52	107			
1-Methylnaphthalene	0.26	0.020	0.3300	0	78.6	54.7	112			
2-Methylnaphthalene	0.25	0.020	0.3300	0	76.7	50.2	112			
Acenaphthylene	0.30	0.020	0.3300	0	90.3	53.3	111			
Acenaphthene	0.31	0.020	0.3300	0	93.2	50	120			
Fluorene	0.30	0.020	0.3300	0	89.4	50.8	115			
Phenanthrene	0.30	0.020	0.3300	0	92.2	54.1	124			
Anthracene	0.30	0.020	0.3300	0	90.8	53.9	117			
Fluoranthene	0.30	0.020	0.3300	0	90.5	54.5	112			
Pyrene	0.28	0.020	0.3300	0	86.2	51.2	113			
Benz(a)anthracene	0.28	0.020	0.3300	0	86.0	54.9	109			
Chrysene	0.19	0.020	0.3300	0	58.3	49	112			
Benzo(b)fluoranthene	0.24	0.020	0.3300	0	73.9	58.2	118			
Benzo(k)fluoranthene	0.29	0.020	0.3300	0	87.5	53.5	118			
Benzo(a)pyrene	0.26	0.020	0.3300	0	79.5	50.1	118			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212360**

19-Dec-12

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID **lcs-5196**	SampType: **LCS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSS**	Batch ID: **5196**	RunNo: **7422**
Prep Date: **12/10/2012**	Analysis Date: **12/11/2012**	SeqNo: **215078** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dibenz(a,h)anthracene	0.27	0.020	0.3300	0	82.3	59.5	113			
Benzo(g,h,i)perylene	0.29	0.020	0.3300	0	86.6	56.5	117			
Indeno(1,2,3-cd)pyrene	0.28	0.020	0.3300	0	83.9	58.5	114			
Surr: Benzo(e)pyrene	0.24		0.3300		72.9	44.9	129			
Surr: N-hexadecane	1.3		1.460		91.4	45.4	126			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212360**

19-Dec-12

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID **1212360-001ADUP** SampType: **DUP** TestCode: **CONDUCTANCE**

Client ID: **SC-1** Batch ID: **R7578** RunNo: **7578**

Prep Date: Analysis Date: **12/19/2012** SeqNo: **219972** Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Conductance	6900	1.0						0	20	

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212360**

19-Dec-12

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID	**MB-5289**	SampType: **MBLK**			TestCode: **EPA Method 7471: Mercury**					
Client ID:	**PBS**	Batch ID: **5289**			RunNo: **7527**					
Prep Date:	**12/17/2012**	Analysis Date: **12/17/2012**			SeqNo: **218472**		Units: **mg/kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	**LCS-5289**	SampType: **LCS**			TestCode: **EPA Method 7471: Mercury**					
Client ID:	**LCSS**	Batch ID: **5289**			RunNo: **7527**					
Prep Date:	**12/17/2012**	Analysis Date: **12/17/2012**			SeqNo: **218473**		Units: **mg/kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	103	80	120			

Sample ID	**1212360-001AMS**	SampType: **MS**			TestCode: **EPA Method 7471: Mercury**					
Client ID:	**SC-1**	Batch ID: **5289**			RunNo: **7527**					
Prep Date:	**12/17/2012**	Analysis Date: **12/17/2012**			SeqNo: **218475**		Units: **mg/kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1643	0.008724	105	75	125			

Sample ID	**1212360-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 7471: Mercury**					
Client ID:	**SC-1**	Batch ID: **5289**			RunNo: **7527**					
Prep Date:	**12/17/2012**	Analysis Date: **12/17/2012**			SeqNo: **218476**		Units: **mg/kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1657	0.008724	106	75	125	1.27	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212360**

19-Dec-12

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID **MB-5292**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **5292**	RunNo: **7561**
Prep Date: **12/17/2012**	Analysis Date: **12/18/2012**	SeqNo: **219504** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	ND	0.30								
Lead	ND	0.25								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Zinc	ND	2.5								

Sample ID **LCS-5292**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **5292**	RunNo: **7561**
Prep Date: **12/17/2012**	Analysis Date: **12/18/2012**	SeqNo: **219505** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	23	2.5	25.00	0	91.4	80	120			
Barium	22	0.10	25.00	0	89.4	80	120			
Cadmium	22	0.10	25.00	0	88.7	80	120			
Chromium	22	0.30	25.00	0	89.7	80	120			
Copper	23	0.30	25.00	0	90.8	80	120			
Lead	22	0.25	25.00	0	88.9	80	120			
Nickel	21	0.50	25.00	0	85.5	80	120			
Selenium	22	2.5	25.00	0	87.4	80	120			
Silver	4.9	0.25	5.000	0.1050	96.6	80	120			
Zinc	22	2.5	25.00	0	89.8	80	120			

Sample ID **1212338-001AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **5292**	RunNo: **7561**
Prep Date: **12/17/2012**	Analysis Date: **12/18/2012**	SeqNo: **219510** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	19	2.5	24.91	0.8300	74.1	75	125			S
Cadmium	18	0.10	24.91	0	73.0	75	125			S
Chromium	20	0.30	24.91	1.446	72.6	75	125			S
Lead	20	0.25	24.91	2.284	69.6	75	125			S
Selenium	17	2.5	24.91	0	69.1	75	125			S
Silver	3.7	0.25	4.982	0.05163	72.9	75	125			S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212360**

19-Dec-12

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID **1212338-001AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **5292** RunNo: **7561**

Prep Date: **12/17/2012** Analysis Date: **12/18/2012** SeqNo: **219511** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	20	2.5	24.55	0.8300	78.1	75	125	3.62	20	
Cadmium	19	0.10	24.55	0	76.9	75	125	3.80	20	
Chromium	20	0.30	24.55	1.446	77.5	75	125	4.65	20	
Lead	20	0.25	24.55	2.284	73.4	75	125	3.49	20	S
Selenium	18	2.5	24.55	0	73.2	75	125	4.32	20	S
Silver	3.9	0.25	4.911	0.05163	77.5	75	125	4.66	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212360**

19-Dec-12

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID	**1212360-001ADUP**	SampType:	**DUP**	TestCode:	**SM4500-H+B: pH**					
Client ID:	**SC-1**	Batch ID:	**R7490**	RunNo:	**7490**					
Prep Date:		Analysis Date:	**12/13/2012**	SeqNo:	**217055**	Units:	**pH Units**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.08	1.68								

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

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: 1212360

Received by/date: 12/07/12

Logged By: **Lindsay Mangin** 12/7/2012 10:00:00 AM

Completed By: **Lindsay Mangin** 12/7/2012 12:04:34 PM

Reviewed By: 12/07/12

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

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 5 day TAT

Project Name: CoP Ute #12

Project #:

Project Manager: D. Watson

Sampler: D Watson

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

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. 1212346	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	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)	Ute Mtn Ute Table (see attached)				Air Bubbles (Y or N)
12-6-12	1325	Soil	SC-1	3-8oz	—	-001												X				

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
12/6/12	1647	Deborah Watson	Christine Walters	12/6/12	1647
12/6/12	1715	Christine Walters		12/07/12	1000

Remarks: Bill to ConocoPhillips
WO: 9344655
Area: 1
User ID: GARRECD
ordered by: Crystal Tafoya
Supervisor: Richard Lopez

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.

Standards for Spill Clean-up and Reclamation
Ute Mountain Ute Tribe
Based on Colorado Oil and Gas Commission Standards

Note: Samples must be collected by a qualified professional and samples analyzed by a qualified laboratory (EPA certification recommended). At a minimum sufficient quality assurance/quality control data should be provided with analyses. These should be sent to Scott Clow, Environmental Programs Director, PO Box 448, Towaoc, CO 81334, or delivered to 520 Sunset Blvd. Towaoc, CO during regular business hours of 8 am to 4:30 pm, Monday through Friday. Other contact information: (970) 564-5432; FAX (970) 565-2651; cellular phone (970) 749-3508.

The Ute Mountain Ute Environmental Programs Department can do sampling on behalf of the Operator/Leasee with the understanding that analytical costs will be reimbursed to the Tribe.

Pollutant Concentrations in Soil and Water

CONCENTRATION LEVELS Contaminant of Concern	Concentrations
Organic Compounds in Soil	
TPH (total volatile and extractable petroleum hydrocarbons)	500 mg/kg
Benzene	0.17 mg/kg2
Toluene	85 mg/kg2
Ethylbenzene	100 mg/kg2
Xylenes (total	175 mg/kg2
Acenaphthene	1,000 mg/kg2
Anthracene	1,000 mg/kg2
Benzo(A)anthracene	0.22 mg/kg2
Benzo(B)fluoranthene	0.22 mg/kg2
Benzo(K)fluoranthene	2.2 mg/kg2
Benzo(A)pyrene	0.022 mg/kg2
Chrysene	22 mg/kg2
Dibenzo(A,H)anthracene	0.022 mg/kg2
Fluoranthene	1,000 mg/kg2
Fluorene	1,000 mg/kg2
Indeno(1,2,3,C,D)pyrene	0.22 mg/kg2
Napthalene	23 mg/kg2

Pyrene	1,000 mg/kg2
Organic Compounds in Ground Water	
Benzene	5 µg/l3
Toluene	560 to 1,000 µg/l3
Ethylbenzene	700 µg/l3
Xylenes (Total)	1,400 to 10,000 µg/l3,4
Inorganics in Soils	
Electrical Conductivity (EC)	<4 mmhos/cm or 2x background
Sodium Adsorption Ratio (SAR)	<125
pH	6-9
Inorganics in Ground Water	
Total Dissolved Solids (TDS)	<1.25 x background3
Chlorides	<1.25 x background3
Sulfates	<1.25 x background3
Metals in Soils	
Arsenic	0.39 mg/kg2
Barium (LDNR True Total Barium)	15,000 mg/kg2
Boron (Hot Water Soluble)	2 mg/l3
Cadmium	70 mg/kg3,6
Chromium (III)	120,000 mg/kg2
Chromium (VI)	23 mg/kg2,6
Copper	3,100 mg/kg2
Lead (inorganic)	400 mg/kg2
Mercury	23 mg/kg2
Nickel (soluble salts)	1,600 mg/kg2,6
Selenium	390 mg/kg2,6
Silver	390 mg/kg2
Zinc	23,000 mg/kg2,6
Liquid Hydrocarbons in Soils and Ground Water	
Liquid hydrocarbons including condensate and oil	Below detection level

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

February 04, 2013

Debbie Watson

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

RE: COP Ute #12 OrderNo.: 1301920

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/29/2013 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued February 04, 2013.

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 **1301920**
Date Reported: **2/4/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: ~~SC-1~~ SC-2 lrc
Project: COP Ute #12
Collection Date: 1/25/2013 4:45:00 PM
Lab ID: 1301920-001
Matrix: SOIL
Received Date: 1/29/2013 10:20:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS							Analyst: **MMD**
Diesel Range Organics (DRO)	2200	61.77645	100		mg/Kg	10	1/31/2013 11:15:20 AM
Motor Oil Range Organics (MRO)	ND	499.00200	500		mg/Kg	10	1/31/2013 11:15:20 AM
Surr: DNOP	0	0.00000	72.4-120	S	%REC	10	1/31/2013 11:15:20 AM
EPA METHOD 8015B: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	44	4.25846	19		mg/Kg	4	1/31/2013 12:15:32 PM
Surr: BFB	148	0.00000	84-116	S	%REC	4	1/31/2013 12:15:32 PM
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Benzene	ND	0.01192	0.19		mg/Kg	4	1/31/2013 12:15:32 PM
Toluene	0.021	0.01231	0.19	J	mg/Kg	4	1/31/2013 12:15:32 PM
Ethylbenzene	0.079	0.01346	0.19	J	mg/Kg	4	1/31/2013 12:15:32 PM
Xylenes, Total	0.32	0.04346	0.38	J	mg/Kg	4	1/31/2013 12:15:32 PM
Surr: 4-Bromofluorobenzene	103	0.00000	80-120		%REC	4	1/31/2013 12:15:32 PM
EPA METHOD 7471: MERCURY							Analyst: **TMG**
Mercury	0.020	0.00164	0.033	J	mg/kg	1	1/31/2013 8:07:12 AM
EPA METHOD 6010B: SOIL METALS							Analyst: **ELS**
Arsenic	1.9	0.62632	2.5	J	mg/Kg	1	1/31/2013 7:43:31 AM
Barium	160	0.30451	0.50		mg/Kg	5	1/31/2013 7:45:51 AM
Cadmium	0.037	0.02710	0.10	J	mg/Kg	1	1/31/2013 7:43:31 AM
Chromium	4.9	0.11840	0.30		mg/Kg	1	1/31/2013 7:43:31 AM
Copper	9.0	0.23231	0.30		mg/Kg	1	1/31/2013 7:43:31 AM
Lead	3.5	0.21941	0.25		mg/Kg	1	1/31/2013 7:43:31 AM
Nickel	3.7	0.16681	0.50		mg/Kg	1	1/31/2013 7:43:31 AM
Selenium	ND	1.40255	2.5		mg/Kg	1	1/31/2013 7:43:31 AM
Silver	ND	0.03540	0.25		mg/Kg	1	1/31/2013 7:43:31 AM
Zinc	24	1.00664	2.5		mg/Kg	1	1/31/2013 7:43:31 AM
SAR SOLUBLE CATIONS							Analyst: **JLF**
Calcium	1600	0.48650	1.0		mg/L	1	1/31/2013 9:58:00 AM
Magnesium	380	0.34400	1.0		mg/L	1	1/31/2013 9:58:00 AM
Sodium	11000	0.87900	1.0		mg/L	1	1/31/2013 9:58:00 AM
Sodium Adsorption Ratio	63	0.00000	0			1	1/31/2013 9:58:00 AM
EPA METHOD 8270C: PAHS							Analyst: **JDC**
Naphthalene	0.46	0.00434	0.020		mg/Kg	1	1/31/2013 3:17:05 PM
1-Methylnaphthalene	0.53	0.00395	0.020		mg/Kg	1	1/31/2013 3:17:05 PM
2-Methylnaphthalene	4.3	0.03997	0.20		mg/Kg	10	2/1/2013 11:27:55 AM
Acenaphthylene	ND	0.02405	0.10		mg/Kg	5	1/31/2013 4:29:18 PM
Acenaphthene	ND	0.02881	0.10		mg/Kg	5	1/31/2013 4:29:18 PM
Fluorene	ND	0.02053	0.10		mg/Kg	5	1/31/2013 4:29:18 PM
Phenanthrene	0.11	0.00324	0.020		mg/Kg	1	1/31/2013 3:17:05 PM
Anthracene	ND	0.00316	0.020		mg/Kg	1	1/31/2013 3:17:05 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: ~~SC-1~~ SC-2 lrc
Project: COP Ute #12
Collection Date: 1/25/2013 4:45:00 PM
Lab ID: 1301920-001
Matrix: SOIL
Received Date: 1/29/2013 10:20:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: PAHS							Analyst: **JDC**
Fluoranthene	ND	0.00355	0.020		mg/Kg	1	1/31/2013 3:17:05 PM
Pyrene	ND	0.00485	0.020		mg/Kg	1	1/31/2013 3:17:05 PM
Benz(a)anthracene	ND	0.00568	0.020		mg/Kg	1	1/31/2013 3:17:05 PM
Chrysene	ND	0.00376	0.020		mg/Kg	1	1/31/2013 3:17:05 PM
Benzo(b)fluoranthene	0.0050	0.00474	0.020	J	mg/Kg	1	1/31/2013 3:17:05 PM
Benzo(k)fluoranthene	ND	0.00581	0.020		mg/Kg	1	1/31/2013 3:17:05 PM
Benzo(a)pyrene	ND	0.00391	0.020		mg/Kg	1	1/31/2013 3:17:05 PM
Dibenz(a,h)anthracene	ND	0.00389	0.020		mg/Kg	1	1/31/2013 3:17:05 PM
Benzo(g,h,i)perylene	ND	0.00506	0.020		mg/Kg	1	1/31/2013 3:17:05 PM
Indeno(1,2,3-cd)pyrene	ND	0.00783	0.020		mg/Kg	1	1/31/2013 3:17:05 PM
Surr: Benzo(e)pyrene	105	0.00000	44.9-129		%REC	1	1/31/2013 3:17:05 PM
Surr: N-hexadecane	0	0.00000	45.4-126	S	%REC	5	1/31/2013 4:29:18 PM
CONDUCTANCE							Analyst: **TAF**
Specific Conductance	5200	0.00000	1.0		µmhos/cm	1	1/31/2013 7:02:00 AM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

ESC
L·A·B S·C·I·E·N·C·E·S
MOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

February 01, 2013

ESC Sample # : L617639-01

Date Received : January 30, 2013
Description :

Sample ID : 1301920-001C SC-1 SC-2 lrc

Site ID :

Project # :

Collected By :
Collection Date : 01/25/13 16:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	02/01/13	1
ORP	58.		mV	2580 B-2011	01/31/13	1
pH	8.2		su	9045D	01/31/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

Reported: 02/01/13 15:31 Printed: 02/01/13 15:40
L617639-01 (PH) - 8.2@20.3c

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L617639

February 01, 2013

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Chromium,Hexavalent	< 2	mg/kg			WG634626	02/01/13 13:44

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
ORP	mV	240.	230.	3.42	20	L617129-01	WG634580
ORP	mV	57.0	58.0	1.74	20	L617639-01	WG634580
pH	su	8.20	8.20	0	1	L617639-01	WG634633
Chromium,Hexavalent	mg/kg	0	0	0	20	L617639-01	WG634626

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
ORP	mV	228	226.	99.1	95.6-104.	WG634580
pH	su	5.7	5.72	100.	98.25-101.75	WG634633
Chromium,Hexavalent	mg/kg	261	214.	82.0	80-120	WG634626

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
ORP	mV	227.	226.	100.	95.6-104.	0.442	20	WG634580
pH	su	5.73	5.72	100.	98.25-101.75	0.175	20	WG634633
Chromium,Hexavalent	mg/kg	215.	214.	82.0	80-120	0.466	20	WG634626

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Chromium,Hexavalent	mg/kg	19.6	0	20	98.0	75-125	L617645-02	WG634626

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Chromium,Hexavalent	mg/kg	19.8	19.6	99.0	75-125	1.02	20	L617645-02	WG634626

Batch number /Run number / Sample number cross reference

WG634580: R2525258: L617639-01
WG634633: R2525299: L617639-01
WG634626: R2525957: L617639-01

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1301920**

04-Feb-13

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID **MB-5902**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **5902**	RunNo: **8358**
Prep Date: **1/30/2013**	Analysis Date: **1/31/2013**	SeqNo: **241455** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		99.1	72.4	120			

Sample ID **LCS-5902**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **5902**	RunNo: **8358**
Prep Date: **1/30/2013**	Analysis Date: **1/31/2013**	SeqNo: **241456** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.1	47.4	122			
Surr: DNOP	4.9		5.000		98.1	72.4	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1301920**

04-Feb-13

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID **MB-5894**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **5894**	RunNo: **8360**
Prep Date: **1/29/2013**	Analysis Date: **1/30/2013**	SeqNo: **241161** 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	990		1000		99.5	84	116			

Sample ID **LCS-5894**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **5894**	RunNo: **8360**
Prep Date: **1/29/2013**	Analysis Date: **1/30/2013**	SeqNo: **241162** 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	74	117			
Surr: BFB	1000		1000		104	84	116			

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R8391**	RunNo: **8391**
Prep Date:	Analysis Date: **1/31/2013**	SeqNo: **241924** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		102	84	116			

Sample ID **2.5UG GRO LCSB**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R8391**	RunNo: **8391**
Prep Date:	Analysis Date: **1/31/2013**	SeqNo: **241925** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		108	84	116			

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1301920**

04-Feb-13

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID **MB-5894**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **5894**	RunNo: **8360**
Prep Date: **1/29/2013**	Analysis Date: **1/30/2013**	SeqNo: **241166** 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	0.0055	0.050								J
Xylenes, Total	0.019	0.10								J
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID **LCS-5894**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **5894**	RunNo: **8360**
Prep Date: **1/29/2013**	Analysis Date: **1/30/2013**	SeqNo: **241167** 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	104	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		114	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1301920**

04-Feb-13

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID **mb-5906**	SampType: **MBLK**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **PBS**	Batch ID: **5906**	RunNo: **8390**
Prep Date: **1/30/2013**	Analysis Date: **1/31/2013**	SeqNo: **241908** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.020								
1-Methylnaphthalene	ND	0.020								
2-Methylnaphthalene	ND	0.020								
Acenaphthylene	ND	0.020								
Acenaphthene	ND	0.020								
Fluorene	ND	0.020								
Phenanthrene	ND	0.020								
Anthracene	ND	0.020								
Fluoranthene	ND	0.020								
Pyrene	ND	0.020								
Benz(a)anthracene	ND	0.020								
Chrysene	ND	0.020								
Benzo(b)fluoranthene	ND	0.020								
Benzo(k)fluoranthene	0.0063	0.020								J
Benzo(a)pyrene	ND	0.020								
Dibenz(a,h)anthracene	ND	0.020								
Benzo(g,h,i)perylene	ND	0.020								
Indeno(1,2,3-cd)pyrene	ND	0.020								
Surr: Benzo(e)pyrene	0.35		0.3300		106	44.9	129			
Surr: N-hexadecane	1.4		1.460		94.2	45.4	126			

Sample ID **lcs-5906**	SampType: **LCS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSS**	Batch ID: **5906**	RunNo: **8390**
Prep Date: **1/30/2013**	Analysis Date: **1/31/2013**	SeqNo: **241910** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.35	0.020	0.3300	0	105	52	107			
1-Methylnaphthalene	0.35	0.020	0.3300	0	106	54.7	112			
2-Methylnaphthalene	0.35	0.020	0.3300	0	107	50.2	112			
Acenaphthylene	0.37	0.020	0.3300	0	112	53.3	111			S
Acenaphthene	0.38	0.020	0.3300	0	114	50	120			
Fluorene	0.37	0.020	0.3300	0	112	50.8	115			
Phenanthrene	0.39	0.020	0.3300	0	119	54.1	124			
Anthracene	0.38	0.020	0.3300	0	116	53.9	117			
Fluoranthene	0.40	0.020	0.3300	0	120	54.5	112			S
Pyrene	0.39	0.020	0.3300	0	117	51.2	113			S
Benz(a)anthracene	0.39	0.020	0.3300	0	118	54.9	109			S
Chrysene	0.36	0.020	0.3300	0	110	49	112			
Benzo(b)fluoranthene	0.37	0.020	0.3300	0	113	58.2	118			
Benzo(k)fluoranthene	0.37	0.020	0.3300	0	112	53.5	118			
Benzo(a)pyrene	0.36	0.020	0.3300	0	109	50.1	118			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1301920**

04-Feb-13

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID **lcs-5906**	SampType: **LCS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSS**	Batch ID: **5906**	RunNo: **8390**
Prep Date: **1/30/2013**	Analysis Date: **1/31/2013**	SeqNo: **241910** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dibenz(a,h)anthracene	0.37	0.020	0.3300	0	113	59.5	113			S
Benzo(g,h,i)perylene	0.39	0.020	0.3300	0	118	56.5	117			S
Indeno(1,2,3-cd)pyrene	0.36	0.020	0.3300	0	110	58.5	114			
Surr: Benzo(e)pyrene	0.54		0.6600		81.7	44.9	129			
Surr: N-hexadecane	2.4		2.920		81.3	45.4	126			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1301920**

04-Feb-13

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID **MB-5905**	SampType: **MBLK**	TestCode: **EPA Method 7471: Mercury**
Client ID: **PBS**	Batch ID: **5905**	RunNo: **8362**
Prep Date: **1/30/2013**	Analysis Date: **1/31/2013**	SeqNo: **241248** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID **LCS-5905**	SampType: **LCS**	TestCode: **EPA Method 7471: Mercury**
Client ID: **LCSS**	Batch ID: **5905**	RunNo: **8362**
Prep Date: **1/30/2013**	Analysis Date: **1/31/2013**	SeqNo: **241249** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	99.1	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1301920**

04-Feb-13

Client: Animas Environmental Services

Project: COP Ute #12

Sample ID **MB-5899**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **5899**	RunNo: **8364**
Prep Date: **1/30/2013**	Analysis Date: **1/31/2013**	SeqNo: **241288** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	ND	0.30								
Lead	ND	0.25								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Zinc	ND	2.5								

Sample ID **LCS-5899**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **5899**	RunNo: **8364**
Prep Date: **1/30/2013**	Analysis Date: **1/31/2013**	SeqNo: **241289** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	2.5	25.00	0	104	80	120			
Barium	27	0.10	25.00	0	107	80	120			
Cadmium	26	0.10	25.00	0	104	80	120			
Chromium	26	0.30	25.00	0	105	80	120			
Copper	27	0.30	25.00	0	110	80	120			
Lead	26	0.25	25.00	0	104	80	120			
Nickel	25	0.50	25.00	0	101	80	120			
Selenium	25	2.5	25.00	0	99.9	80	120			
Silver	5.1	0.25	5.000	0	103	80	120			
Zinc	26	2.5	25.00	0	105	80	120			

Qualifiers:

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

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: 1301920

Received by/date: MG 01/29/13

Logged By: **Anne Thorne** 1/29/2013 10:20:00 AM Anne Thorne

Completed By: **Anne Thorne** 1/29/2013 Anne Thorne

Reviewed By: IO 01/29/2013

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: per DW results on 02/01/13
☐ Standard ☒ Rush 5 day

Project Name: CoP Ute #12

Project #:

Project Manager: D Watson

Sampler: CLamerman

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 #	Preservative Type	HEAL No. 1301928	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Colorado CogCC 910-1				Air Bubbles (Y or N)
1-25-13	1645	Soil	SC-1	3-8oz	—	-001												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/28/13	1656			1/28/13	1656
1/28/13	1721			01/29/13	10:2

Remarks: Bill to ConocoPhillips
wo:
Area: 1
Supervisor: Richard Lopez
User: GARRECD
ordered by: Crystal Tafoya

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

March 29, 2013

Debbie Watson

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

RE: CoP Ute #12 March 2013 OrderNo.: 1303459

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/12/2013 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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: ~~SC-1~~ SC-3 Irc
Project: CoP Ute #12 March 2013
Collection Date: 3/8/2013 2:25:00 PM
Lab ID: 1303459-001 **Matrix:** SOIL **Received Date:** 3/12/2013 9:53:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS							Analyst: **MMD**
Diesel Range Organics (DRO)	53	6.4	10		mg/Kg	1	3/22/2013 11:40:14 PM
Motor Oil Range Organics (MRO)	ND	52	52		mg/Kg	1	3/22/2013 11:40:14 PM
Surr: DNOP	96.6	0	72.4-120		%REC	1	3/22/2013 11:40:14 PM
EPA METHOD 300.0: ANIONS							Analyst: **JRR**
Chloride	2100	7.8	75		mg/Kg	50	3/15/2013 12:06:57 PM
EPA METHOD 7471: MERCURY							Analyst: **TMG**
Mercury	0.0079	0.0016	0.033	J	mg/kg	1	3/18/2013 10:35:17 AM
EPA METHOD 6010B: SOIL METALS							Analyst: **ELS**
Arsenic	ND	3.1	12		mg/Kg	5	3/14/2013 10:03:29 AM
Barium	190	0.30	0.50		mg/Kg	5	3/14/2013 10:03:29 AM
Cadmium	ND	0.14	0.50		mg/Kg	5	3/14/2013 10:03:29 AM
Chromium	6.4	0.59	1.5		mg/Kg	5	3/14/2013 10:03:29 AM
Copper	10	1.2	1.5		mg/Kg	5	3/14/2013 10:03:29 AM
Lead	4.4	1.1	1.2		mg/Kg	5	3/14/2013 10:03:29 AM
Nickel	5.0	0.83	2.5		mg/Kg	5	3/14/2013 10:03:29 AM
Selenium	ND	7.0	12		mg/Kg	5	3/18/2013 11:46:30 AM
Silver	ND	0.18	1.2		mg/Kg	5	3/14/2013 10:03:29 AM
Zinc	37	5.0	12		mg/Kg	5	3/14/2013 10:03:29 AM
SAR SOLUBLE CATIONS							Analyst: **JLF**
Calcium	330	0.49	1.0		mg/L	1	3/25/2013 9:28:00 AM
Magnesium	50	0.34	1.0		mg/L	1	3/25/2013 9:28:00 AM
Sodium	6700	0.88	1.0		mg/L	1	3/25/2013 9:28:00 AM
Sodium Adsorption Ratio	91	0	0			1	3/25/2013 9:28:00 AM
EPA METHOD 8270C: PAHS							Analyst: **JDC**
Naphthalene	0.0047	0.0044	0.020	J	mg/Kg	1	3/14/2013 4:32:16 PM
Acenaphthene	ND	0.0058	0.020		mg/Kg	1	3/14/2013 4:32:16 PM
Fluorene	ND	0.0041	0.020		mg/Kg	1	3/14/2013 4:32:16 PM
Anthracene	ND	0.0032	0.020		mg/Kg	1	3/14/2013 4:32:16 PM
Fluoranthene	0.0043	0.0036	0.020	J	mg/Kg	1	3/14/2013 4:32:16 PM
Pyrene	ND	0.0049	0.020		mg/Kg	1	3/14/2013 4:32:16 PM
Benz(a)anthracene	ND	0.0057	0.020		mg/Kg	1	3/14/2013 4:32:16 PM
Chrysene	ND	0.0038	0.020		mg/Kg	1	3/14/2013 4:32:16 PM
Benzo(b)fluoranthene	ND	0.0048	0.020		mg/Kg	1	3/14/2013 4:32:16 PM
Benzo(k)fluoranthene	ND	0.0058	0.020		mg/Kg	1	3/14/2013 4:32:16 PM
Benzo(a)pyrene	ND	0.0039	0.020		mg/Kg	1	3/14/2013 4:32:16 PM
Dibenz(a,h)anthracene	ND	0.0039	0.020		mg/Kg	1	3/14/2013 4:32:16 PM
Indeno(1,2,3-cd)pyrene	ND	0.0079	0.020		mg/Kg	1	3/14/2013 4:32:16 PM
Surr: Benzo(e)pyrene	106	0	44.9-129		%REC	1	3/14/2013 4:32:16 PM
Surr: N-hexadecane	204	0	45.4-126	S	%REC	1	3/14/2013 4:32:16 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: ~~SC-1~~ SC-3 lrc
Project: CoP Ute #12 March 2013
Collection Date: 3/8/2013 2:25:00 PM
Lab ID: 1303459-001 **Matrix:** SOIL **Received Date:** 3/12/2013 9:53:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: **RAA**
Benzene	ND	0.0019	0.047		mg/Kg	1	3/15/2013 2:33:16 PM
Toluene	ND	0.0023	0.047		mg/Kg	1	3/15/2013 2:33:16 PM
Ethylbenzene	ND	0.0019	0.047		mg/Kg	1	3/15/2013 2:33:16 PM
Xylenes, Total	ND	0.024	0.093		mg/Kg	1	3/15/2013 2:33:16 PM
Surr: 1,2-Dichloroethane-d4	85.7	0	70-130		%REC	1	3/15/2013 2:33:16 PM
Surr: 4-Bromofluorobenzene	83.6	0	70-130		%REC	1	3/15/2013 2:33:16 PM
Surr: Dibromofluoromethane	91.2	0	70-130		%REC	1	3/15/2013 2:33:16 PM
Surr: Toluene-d8	104	0	70-130		%REC	1	3/15/2013 2:33:16 PM
EPA METHOD 8015B MOD: GASOLINE RANGE							Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.82	4.7		mg/Kg	1	3/15/2013 2:33:16 PM
Surr: BFB	83.6	0	70-130		%REC	1	3/15/2013 2:33:16 PM
CONDUCTANCE							Analyst: **TAF**
Specific Conductance	5000	0	1.0		µmhos/c	1	3/15/2013 7:16:00 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: ~~SC-2~~ SC-4 lrc
Project: CoP Ute #12 March 2013
Collection Date: 3/8/2013 2:29:00 PM
Lab ID: 1303459-002 **Matrix:** SOIL **Received Date:** 3/12/2013 9:53:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS							Analyst: **MMD**
Diesel Range Organics (DRO)	ND	6.3	10		mg/Kg	1	3/23/2013 1:02:07 AM
Motor Oil Range Organics (MRO)	ND	51	51		mg/Kg	1	3/23/2013 1:02:07 AM
Surr: DNOP	99.7	0	72.4-120		%REC	1	3/23/2013 1:02:07 AM
EPA METHOD 300.0: ANIONS							Analyst: **JRR**
Chloride	130	3.1	30		mg/Kg	20	3/14/2013 12:35:18 PM
EPA METHOD 7471: MERCURY							Analyst: **TMG**
Mercury	0.043	0.0016	0.033		mg/kg	1	3/18/2013 10:37:08 AM
EPA METHOD 6010B: SOIL METALS							Analyst: **JLF**
Arsenic	ND	3.1	12		mg/Kg	5	3/18/2013 11:48:51 AM
Barium	130	0.30	0.50		mg/Kg	5	3/14/2013 10:20:11 AM
Cadmium	ND	0.14	0.50		mg/Kg	5	3/14/2013 10:20:11 AM
Chromium	7.7	0.59	1.5		mg/Kg	5	3/14/2013 10:20:11 AM
Copper	9.5	1.2	1.5		mg/Kg	5	3/14/2013 10:20:11 AM
Lead	9.1	1.1	1.2		mg/Kg	5	3/18/2013 11:48:51 AM
Nickel	7.6	0.83	2.5		mg/Kg	5	3/14/2013 10:20:11 AM
Selenium	ND	7.0	12		mg/Kg	5	3/18/2013 11:48:51 AM
Silver	ND	0.18	1.2		mg/Kg	5	3/14/2013 10:20:11 AM
Zinc	44	5.0	12		mg/Kg	5	3/18/2013 11:48:51 AM
SAR SOLUBLE CATIONS							Analyst: **JLF**
Calcium	540	0.49	1.0		mg/L	1	3/25/2013 9:28:00 AM
Magnesium	330	0.34	1.0		mg/L	1	3/25/2013 9:28:00 AM
Sodium	370	0.88	1.0		mg/L	1	3/25/2013 9:28:00 AM
Sodium Adsorption Ratio	3.0	0	0			1	3/25/2013 9:28:00 AM
EPA METHOD 8270C: PAHS							Analyst: **JDC**
Naphthalene	0.0047	0.0044	0.020	J	mg/Kg	1	3/14/2013 5:42:06 PM
Acenaphthene	ND	0.0058	0.020		mg/Kg	1	3/14/2013 5:42:06 PM
Fluorene	ND	0.0041	0.020		mg/Kg	1	3/14/2013 5:42:06 PM
Anthracene	ND	0.0032	0.020		mg/Kg	1	3/14/2013 5:42:06 PM
Fluoranthene	0.0037	0.0036	0.020	J	mg/Kg	1	3/14/2013 5:42:06 PM
Pyrene	ND	0.0049	0.020		mg/Kg	1	3/14/2013 5:42:06 PM
Benz(a)anthracene	ND	0.0057	0.020		mg/Kg	1	3/14/2013 5:42:06 PM
Chrysene	ND	0.0038	0.020		mg/Kg	1	3/14/2013 5:42:06 PM
Benzo(b)fluoranthene	0.0084	0.0048	0.020	J	mg/Kg	1	3/14/2013 5:42:06 PM
Benzo(k)fluoranthene	ND	0.0058	0.020		mg/Kg	1	3/14/2013 5:42:06 PM
Benzo(a)pyrene	ND	0.0039	0.020		mg/Kg	1	3/14/2013 5:42:06 PM
Dibenz(a,h)anthracene	ND	0.0039	0.020		mg/Kg	1	3/14/2013 5:42:06 PM
Indeno(1,2,3-cd)pyrene	ND	0.0079	0.020		mg/Kg	1	3/14/2013 5:42:06 PM
Surr: Benzo(e)pyrene	123	0	44.9-129		%REC	1	3/14/2013 5:42:06 PM
Surr: N-hexadecane	124	0	45.4-126		%REC	1	3/14/2013 5:42:06 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: ~~SC-2~~ SC-4 lrc
Project: CoP Ute #12 March 2013
Collection Date: 3/8/2013 2:29:00 PM
Lab ID: 1303459-002 **Matrix:** SOIL **Received Date:** 3/12/2013 9:53:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: **RAA**
Benzene	ND	0.0019	0.047		mg/Kg	1	3/15/2013 5:40:09 AM
Toluene	ND	0.0023	0.047		mg/Kg	1	3/15/2013 5:40:09 AM
Ethylbenzene	ND	0.0020	0.047		mg/Kg	1	3/15/2013 5:40:09 AM
Xylenes, Total	ND	0.024	0.093		mg/Kg	1	3/15/2013 5:40:09 AM
Surr: 1,2-Dichloroethane-d4	85.2	0	70-130		%REC	1	3/15/2013 5:40:09 AM
Surr: 4-Bromofluorobenzene	91.9	0	70-130		%REC	1	3/15/2013 5:40:09 AM
Surr: Dibromofluoromethane	93.7	0	70-130		%REC	1	3/15/2013 5:40:09 AM
Surr: Toluene-d8	99.6	0	70-130		%REC	1	3/15/2013 5:40:09 AM
EPA METHOD 8015B MOD: GASOLINE RANGE							Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.82	4.7		mg/Kg	1	3/15/2013 5:40:09 AM
Surr: BFB	91.9	0	70-130		%REC	1	3/15/2013 5:40:09 AM
CONDUCTANCE							Analyst: **TAF**
Specific Conductance	1900	0	1.0		µmhos/c	1	3/15/2013 7:16:00 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: ~~SC-3~~ SC-5 lrc
Project: CoP Ute #12 March 2013
Collection Date: 3/8/2013 2:35:00 PM
Lab ID: 1303459-003 **Matrix:** SOIL **Received Date:** 3/12/2013 9:53:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS							Analyst: **MMD**
Diesel Range Organics (DRO)	850	6.3	10		mg/Kg	1	3/23/2013 1:29:21 AM
Motor Oil Range Organics (MRO)	ND	51	51		mg/Kg	1	3/23/2013 1:29:21 AM
Surr: DNOP	113	0	72.4-120		%REC	1	3/23/2013 1:29:21 AM
EPA METHOD 300.0: ANIONS							Analyst: **JRR**
Chloride	1900	7.8	75		mg/Kg	50	3/15/2013 12:19:21 PM
EPA METHOD 7471: MERCURY							Analyst: **TMG**
Mercury	0.0063	0.0016	0.033	J	mg/kg	1	3/18/2013 10:38:51 AM
EPA METHOD 6010B: SOIL METALS							Analyst: **JLF**
Arsenic	ND	3.1	12		mg/Kg	5	3/18/2013 11:58:13 AM
Barium	130	0.30	0.50		mg/Kg	5	3/14/2013 10:32:11 AM
Cadmium	ND	0.14	0.50		mg/Kg	5	3/14/2013 10:32:11 AM
Chromium	5.2	0.59	1.5		mg/Kg	5	3/14/2013 10:32:11 AM
Copper	9.7	1.2	1.5		mg/Kg	5	3/14/2013 10:32:11 AM
Lead	5.4	1.1	1.2		mg/Kg	5	3/18/2013 11:58:13 AM
Nickel	4.4	0.83	2.5		mg/Kg	5	3/14/2013 10:32:11 AM
Selenium	ND	7.0	12		mg/Kg	5	3/18/2013 11:58:13 AM
Silver	ND	0.18	1.3		mg/Kg	5	3/14/2013 10:32:11 AM
Zinc	28	5.0	12		mg/Kg	5	3/18/2013 11:58:13 AM
SAR SOLUBLE CATIONS							Analyst: **JLF**
Calcium	580	0.49	1.0		mg/L	1	3/25/2013 9:28:00 AM
Magnesium	67	0.34	1.0		mg/L	1	3/25/2013 9:28:00 AM
Sodium	5700	0.88	1.0		mg/L	1	3/25/2013 9:28:00 AM
Sodium Adsorption Ratio	60	0	0			1	3/25/2013 9:28:00 AM
EPA METHOD 8270C: PAHS							Analyst: **JDC**
Naphthalene	0.56	0.043	0.20		mg/Kg	10	3/15/2013 11:33:06 PM
Acenaphthene	0.31	0.058	0.20		mg/Kg	10	3/15/2013 11:33:06 PM
Fluorene	0.65	0.041	0.20		mg/Kg	10	3/15/2013 11:33:06 PM
Anthracene	ND	0.0032	0.020		mg/Kg	1	3/14/2013 6:05:21 PM
Fluoranthene	0.051	0.0036	0.020		mg/Kg	1	3/14/2013 6:05:21 PM
Pyrene	0.054	0.0049	0.020		mg/Kg	1	3/14/2013 6:05:21 PM
Benz(a)anthracene	0.023	0.0057	0.020		mg/Kg	1	3/14/2013 6:05:21 PM
Chrysene	0.023	0.0038	0.020		mg/Kg	1	3/14/2013 6:05:21 PM
Benzo(b)fluoranthene	0.037	0.0047	0.020		mg/Kg	1	3/14/2013 6:05:21 PM
Benzo(k)fluoranthene	0.010	0.0058	0.020	J	mg/Kg	1	3/14/2013 6:05:21 PM
Benzo(a)pyrene	0.021	0.0039	0.020		mg/Kg	1	3/14/2013 6:05:21 PM
Dibenz(a,h)anthracene	ND	0.0039	0.020		mg/Kg	1	3/14/2013 6:05:21 PM
Indeno(1,2,3-cd)pyrene	ND	0.0078	0.020		mg/Kg	1	3/14/2013 6:05:21 PM
Surr: Benzo(e)pyrene	102	0	44.9-129		%REC	1	3/14/2013 6:05:21 PM
Surr: N-hexadecane	0	0	45.4-126	S	%REC	10	3/15/2013 11:33:06 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: ~~SC-3~~ SC-5 lrc
Project: CoP Ute #12 March 2013
Collection Date: 3/8/2013 2:35:00 PM
Lab ID: 1303459-003 **Matrix:** SOIL **Received Date:** 3/12/2013 9:53:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: **RAA**
Benzene	ND	0.019	0.47		mg/Kg	10	3/15/2013 6:08:02 AM
Toluene	ND	0.023	0.47		mg/Kg	10	3/15/2013 6:08:02 AM
Ethylbenzene	0.14	0.020	0.47	J	mg/Kg	10	3/15/2013 6:08:02 AM
Xylenes, Total	5.7	0.24	0.94		mg/Kg	10	3/15/2013 6:08:02 AM
Surr: 1,2-Dichloroethane-d4	90.7	0	70-130		%REC	10	3/15/2013 6:08:02 AM
Surr: 4-Bromofluorobenzene	119	0	70-130		%REC	10	3/15/2013 6:08:02 AM
Surr: Dibromofluoromethane	93.9	0	70-130		%REC	10	3/15/2013 6:08:02 AM
Surr: Toluene-d8	91.8	0	70-130		%REC	10	3/15/2013 6:08:02 AM
EPA METHOD 8015B MOD: GASOLINE RANGE							Analyst: **RAA**
Gasoline Range Organics (GRO)	580	8.2	47		mg/Kg	10	3/15/2013 6:08:02 AM
Surr: BFB	119	0	70-130		%REC	10	3/15/2013 6:08:02 AM
CONDUCTANCE							Analyst: **TAF**
Specific Conductance	4200	0	1.0		µmhos/c	1	3/15/2013 7:16:00 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

March 20, 2013

ESC Sample # : L624607-01

Date Received : March 13, 2013
Description :

Sample ID : 1303459-001B SC-1 SC-3 lrc

Site ID :

Project # :

Collected By :
Collection Date : 03/08/13 14:25

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	03/15/13	1
ORP	140		mV	2580 B-2011	03/15/13	1
pH	8.7		su	9045D	03/20/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

Reported: 03/20/13 16:36 Printed: 03/20/13 16:37
L624607-01 (PH) - 8.7@23.9c

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

March 20, 2013

ESC Sample # : L624607-02

Date Received : March 13, 2013
Description :

Sample ID : 1303459-002B SC-2 SC-4 lrc

Site ID :

Project # :

Collected By :
Collection Date : 03/08/13 14:29

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	50.	mg/kg	3060A/7196A	03/15/13	25
ORP	140		mV	2580 B-2011	03/15/13	1
pH	7.9		su	9045D	03/20/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

Reported: 03/20/13 16:36 Printed: 03/20/13 16:37
L624607-02 (PH) - 7.9@22.6c
L624607-02 (CR6) - diluted due to sample color

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

March 20, 2013

ESC Sample # : L624607-03

Date Received : March 13, 2013
Description :

Sample ID : 1303459-003B SC-3 SC-5 Irc

Site ID :

Project # :

Collected By :
Collection Date : 03/08/13 14:35

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	03/15/13	1
ORP	140		mV	2580 B-2011	03/15/13	1
pH	8.4		su	9045D	03/20/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

Reported: 03/20/13 16:36 Printed: 03/20/13 16:37
L624607-03 (PH) - 8.4@22.1c

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L624607

March 20, 2013

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Chromium,Hexavalent	< 2	mg/kg			WG650764	03/15/13 13:41

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Chromium,Hexavalent	mg/kg	0	0	0	20	L624154-06	WG650764
Chromium,Hexavalent	mg/kg	0	0	0	20	L624323-06	WG650764
ORP	mV	0.	0.	0	20	L624261-01	WG650793
ORP	mV	110.	110.	0.913	20	L624670-01	WG650793
pH	su	5.30	7.70	36.4*	1	L624682-01	WG651729
pH	su	8.70	8.70	0.115	1	L625356-02	WG651729

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Chromium,Hexavalent	mg/kg	218	225.	103.	80-120	WG650764
ORP	mV	228	225.	98.7	95.6-104.	WG650793
pH	su	5.7	5.70	100.	98.25-101.75	WG651729

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Chromium,Hexavalent	mg/kg	220.	225.	101.	80-120	2.25	20	WG650764
ORP	mV	226.	225.	99.0	95.6-104.	0.443	20	WG650793
pH	su	5.69	5.70	100.	98.25-101.75	0.176	20	WG651729

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Chromium,Hexavalent	mg/kg	17.8	0	20	89.0	75-125	L624320-06	WG650764

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Chromium,Hexavalent	mg/kg	17.1	17.8	85.5	75-125	4.01	20	L624320-06	WG650764

Batch number /Run number / Sample number cross reference

WG650764: R2582297: L624607-01 02 03
WG650793: R2582518: L624607-01 02 03
WG651729: R2589617: L624607-01 02 03

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303459**

29-Mar-13

Client: Animas Environmental Services

Project: CoP Ute #12 March 2013

Sample ID **MB-6485**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **6485**	RunNo: **9186**
Prep Date: **3/14/2013**	Analysis Date: **3/14/2013**	SeqNo: **261163** Units: **mg/Kg**

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

Sample ID **LCS-6485**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **6485**	RunNo: **9186**
Prep Date: **3/14/2013**	Analysis Date: **3/14/2013**	SeqNo: **261164** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.1	90	110			

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
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#: **1303459**

29-Mar-13

Client: Animas Environmental Services

Project: CoP Ute #12 March 2013

Sample ID **MB-6604**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **6604**	RunNo: **9311**
Prep Date: **3/21/2013**	Analysis Date: **3/21/2013**	SeqNo: **265889** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		122	72.4	120			S

Sample ID **LCS-6604**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **6604**	RunNo: **9311**
Prep Date: **3/21/2013**	Analysis Date: **3/21/2013**	SeqNo: **265890** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.2	47.4	122			
Surr: DNOP	5.0		5.000		101	72.4	120			

Sample ID **MB-6604**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **6604**	RunNo: **9345**
Prep Date: **3/21/2013**	Analysis Date: **3/22/2013**	SeqNo: **267512** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		96.8	72.4	120			

Sample ID **LCS-6604**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **6604**	RunNo: **9345**
Prep Date: **3/21/2013**	Analysis Date: **3/22/2013**	SeqNo: **267513** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	107	47.4	122			
Surr: DNOP	5.2		5.000		104	72.4	120			

Sample ID **1303459-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **SC-1**	Batch ID: **6604**	RunNo: **9345**
Prep Date: **3/21/2013**	Analysis Date: **3/23/2013**	SeqNo: **267554** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	100	10	51.98	53.38	90.1	12.6	148			
Surr: DNOP	5.2		5.198		99.8	72.4	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303459**

29-Mar-13

Client: Animas Environmental Services

Project: CoP Ute #12 March 2013

Sample ID **1303459-001AMSD**	SampType: **MSD**		TestCode: **EPA Method 8015B: Diesel Range Organics**		
Client ID: **SC-1**	Batch ID: **6604**		RunNo: **9345**		
Prep Date: **3/21/2013**	Analysis Date: **3/23/2013**		SeqNo: **267557**	Units: **mg/Kg**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	120	10	50.10	53.38	134	12.6	148	18.4	22.5	
Surr: DNOP	5.6		5.010		112	72.4	120	0	0	

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
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#: **1303459**

29-Mar-13

Client: Animas Environmental Services

Project: CoP Ute #12 March 2013

Sample ID **mb-6438**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **6438**	RunNo: **9181**
Prep Date: **3/12/2013**	Analysis Date: **3/14/2013**	SeqNo: **261864** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0046	0.050								J
Toluene	0.0051	0.050								J
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		86.3	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.3	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.1	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			

Sample ID **lcs-6438**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **6438**	RunNo: **9181**
Prep Date: **3/12/2013**	Analysis Date: **3/14/2013**	SeqNo: **261865** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.3	70	130			
Toluene	1.0	0.050	1.000	0	101	80	120			
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.7	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.4	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.2	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			

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
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#: **1303459**

29-Mar-13

Client: Animas Environmental Services

Project: CoP Ute #12 March 2013

Sample ID **mb-6463**	SampType: **MBLK**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **PBS**	Batch ID: **6463**	RunNo: **9179**
Prep Date: **3/13/2013**	Analysis Date: **3/14/2013**	SeqNo: **261627** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.020								
1-Methylnaphthalene	ND	0.020								
2-Methylnaphthalene	ND	0.020								
Acenaphthylene	ND	0.020								
Acenaphthene	ND	0.020								
Fluorene	ND	0.020								
Phenanthrene	0.0037	0.020								J
Anthracene	ND	0.020								
Fluoranthene	ND	0.020								
Pyrene	ND	0.020								
Benz(a)anthracene	ND	0.020								
Chrysene	ND	0.020								
Benzo(b)fluoranthene	ND	0.020								
Benzo(k)fluoranthene	ND	0.020								
Benzo(a)pyrene	ND	0.020								
Dibenz(a,h)anthracene	ND	0.020								
Benzo(g,h,i)perylene	ND	0.020								
Indeno(1,2,3-cd)pyrene	ND	0.020								
Surr: Benzo(e)pyrene	0.36		0.3300		110	44.9	129			
Surr: N-hexadecane	1.5		1.460		100	45.4	126			

Sample ID **lcs-6463**	SampType: **LCS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSS**	Batch ID: **6463**	RunNo: **9179**
Prep Date: **3/13/2013**	Analysis Date: **3/14/2013**	SeqNo: **261628** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.29	0.020	0.3300	0	87.0	52	107			
1-Methylnaphthalene	0.31	0.020	0.3300	0	93.8	54.7	112			
2-Methylnaphthalene	0.32	0.020	0.3300	0	97.5	50.2	112			
Acenaphthylene	0.30	0.020	0.3300	0	91.9	53.3	111			
Acenaphthene	0.28	0.020	0.3300	0	83.8	50	120			
Fluorene	0.29	0.020	0.3300	0	89.2	50.8	115			
Phenanthrene	0.29	0.020	0.3300	0	86.7	54.1	124			
Anthracene	0.31	0.020	0.3300	0	93.6	53.9	117			
Fluoranthene	0.27	0.020	0.3300	0	81.9	54.5	112			
Pyrene	0.29	0.020	0.3300	0	88.8	51.2	113			
Benz(a)anthracene	0.31	0.020	0.3300	0	92.5	54.9	109			
Chrysene	0.28	0.020	0.3300	0	83.8	49	112			
Benzo(b)fluoranthene	0.32	0.020	0.3300	0	98.0	58.2	118			
Benzo(k)fluoranthene	0.29	0.020	0.3300	0	87.2	53.5	118			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303459**

29-Mar-13

Client: Animas Environmental Services

Project: CoP Ute #12 March 2013

Sample ID **lcs-6463**	SampType: **LCS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSS**	Batch ID: **6463**	RunNo: **9179**
Prep Date: **3/13/2013**	Analysis Date: **3/14/2013**	SeqNo: **261628** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(a)pyrene	0.29	0.020	0.3300	0	89.1	50.1	118			
Dibenz(a,h)anthracene	0.33	0.020	0.3300	0	101	59.5	113			
Benzo(g,h,i)perylene	0.32	0.020	0.3300	0	95.8	56.5	117			
Indeno(1,2,3-cd)pyrene	0.32	0.020	0.3300	0	97.8	58.5	114			
Surr: Benzo(e)pyrene	0.33		0.3300		98.7	44.9	129			
Surr: N-hexadecane	1.5		1.460		102	45.4	126			

Sample ID **1303459-001Ams**	SampType: **MS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **SC-1**	Batch ID: **6463**	RunNo: **9179**
Prep Date: **3/13/2013**	Analysis Date: **3/14/2013**	SeqNo: **261633** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.31	0.020	0.3290	0.004664	91.6	55.7	95.1			
1-Methylnaphthalene	0.34	0.020	0.3290	0	104	60.8	100			S
2-Methylnaphthalene	0.35	0.020	0.3290	0.006662	105	58.1	98.5			S
Acenaphthylene	0.30	0.020	0.3290	0	92.4	56.5	101			
Acenaphthene	0.31	0.020	0.3290	0	93.4	57	107			
Fluorene	0.30	0.020	0.3290	0	91.3	61.6	100			
Phenanthrene	0.33	0.020	0.3290	0	102	68.5	115			
Anthracene	0.33	0.020	0.3290	0	100	62.5	117			
Fluoranthene	0.33	0.020	0.3290	0.004330	99.9	59.5	112			
Pyrene	0.33	0.020	0.3290	0	101	55.3	109			
Benz(a)anthracene	0.34	0.020	0.3290	0	103	52.3	115			
Chrysene	0.30	0.020	0.3290	0	91.5	52.3	113			
Benzo(b)fluoranthene	0.36	0.020	0.3290	0	109	47.1	125			
Benzo(k)fluoranthene	0.29	0.020	0.3290	0	89.6	46.9	125			
Benzo(a)pyrene	0.31	0.020	0.3290	0	93.9	55.9	115			
Dibenz(a,h)anthracene	0.37	0.020	0.3290	0	112	59.4	112			
Benzo(g,h,i)perylene	0.34	0.020	0.3290	0	103	50.2	120			
Indeno(1,2,3-cd)pyrene	0.35	0.020	0.3290	0	106	54.2	118			
Surr: Benzo(e)pyrene	0.37		0.3290		112	44.9	129			
Surr: N-hexadecane	3.7		1.456		256	45.4	126			S

Sample ID **1303459-001Amsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **SC-1**	Batch ID: **6463**	RunNo: **9179**
Prep Date: **3/13/2013**	Analysis Date: **3/14/2013**	SeqNo: **261634** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.30	0.020	0.3306	0.004664	88.6	55.7	95.1	2.85	20	
1-Methylnaphthalene	0.33	0.020	0.3306	0	101	60.8	100	3.18	20	S

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
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#: **1303459**

29-Mar-13

Client: Animas Environmental Services

Project: CoP Ute #12 March 2013

Sample ID **1303459-001Amsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **SC-1**	Batch ID: **6463**	RunNo: **9179**
Prep Date: **3/13/2013**	Analysis Date: **3/14/2013**	SeqNo: **261634** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylnaphthalene	0.35	0.020	0.3306	0.006662	105	58.1	98.5	0.655	20	S
Acenaphthylene	0.33	0.020	0.3306	0	99.3	56.5	101	7.63	20	
Acenaphthene	0.32	0.020	0.3306	0	96.6	57	107	3.76	20	
Fluorene	0.33	0.020	0.3306	0	99.5	61.6	100	9.04	20	
Phenanthrene	0.33	0.020	0.3306	0	98.8	68.5	115	2.55	20	
Anthracene	0.33	0.020	0.3306	0	98.7	62.5	117	1.26	20	
Fluoranthene	0.33	0.020	0.3306	0.004330	98.7	59.5	112	0.738	20	
Pyrene	0.33	0.020	0.3306	0	98.5	55.3	109	2.36	20	
Benz(a)anthracene	0.34	0.020	0.3306	0	102	52.3	115	0.619	20	
Chrysene	0.30	0.020	0.3306	0	89.6	52.3	113	1.65	20	
Benzo(b)fluoranthene	0.34	0.020	0.3306	0	104	47.1	125	3.99	20	
Benzo(k)fluoranthene	0.29	0.020	0.3306	0	88.6	46.9	125	0.667	20	
Benzo(a)pyrene	0.32	0.020	0.3306	0	95.7	55.9	115	2.28	20	
Dibenz(a,h)anthracene	0.36	0.020	0.3306	0	108	59.4	112	3.40	20	
Benzo(g,h,i)perylene	0.33	0.020	0.3306	0	99.8	50.2	120	2.33	20	
Indeno(1,2,3-cd)pyrene	0.34	0.020	0.3306	0	104	54.2	118	1.45	20	
Surr: Benzo(e)pyrene	0.37		0.3306		112	44.9	129	0	0	
Surr: N-hexadecane	4.2		1.462		287	45.4	126	0	0	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303459**

29-Mar-13

Client: Animas Environmental Services

Project: CoP Ute #12 March 2013

Sample ID **1303551-001ADUP**	SampType: **DUP**	TestCode: **CONDUCTANCE**							
Client ID: **BatchQC**	Batch ID: **R9219**	RunNo: **9219**							
Prep Date:	Analysis Date: **3/15/2013**	SeqNo: **262182**	Units: **µmhos/cm**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Conductance	1300	1.0						11.1	20	

Sample ID **1303459-001ADUP**	SampType: **DUP**	TestCode: **CONDUCTANCE**							
Client ID: **SC-1**	Batch ID: **R9219**	RunNo: **9219**							
Prep Date:	Analysis Date: **3/15/2013**	SeqNo: **262208**	Units: **µmhos/cm**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Conductance	5000	1.0						0	20	

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
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#: **1303459**

29-Mar-13

Client: Animas Environmental Services
Project: CoP Ute #12 March 2013

Sample ID **MB-6458**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **6458**	RunNo: **9189**
Prep Date: **3/13/2013**	Analysis Date: **3/14/2013**	SeqNo: **261278** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	ND	0.30								
Lead	ND	0.25								
Nickel	ND	0.50								
Silver	ND	0.25								
Zinc	ND	2.5								

Sample ID **LCS-6458**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **6458**	RunNo: **9189**
Prep Date: **3/13/2013**	Analysis Date: **3/14/2013**	SeqNo: **261279** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	2.5	25.00	0	105	80	120			
Barium	25	0.10	25.00	0	101	80	120			
Cadmium	25	0.10	25.00	0	101	80	120			
Chromium	26	0.30	25.00	0	102	80	120			
Copper	26	0.30	25.00	0	104	80	120			
Lead	25	0.25	25.00	0	98.9	80	120			
Nickel	24	0.50	25.00	0	97.9	80	120			
Silver	5.1	0.25	5.000	0	102	80	120			
Zinc	26	2.5	25.00	0	102	80	120			

Sample ID **1303459-003AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **SC-3**	Batch ID: **6458**	RunNo: **9189**
Prep Date: **3/13/2013**	Analysis Date: **3/14/2013**	SeqNo: **261310** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	170	0.50	23.95	129.8	187	75	125			S
Cadmium	24	0.50	23.95	0	102	75	125			
Chromium	33	1.5	23.95	5.195	114	75	125			
Copper	32	1.5	23.95	9.731	93.4	75	125			
Nickel	28	2.5	23.95	4.415	100	75	125			
Silver	4.9	1.2	4.790	0	102	75	125			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303459**

29-Mar-13

Client: Animas Environmental Services

Project: CoP Ute #12 March 2013

Sample ID	1303459-003AMSD	SampType:	MSD			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	SC-3	Batch ID:	6458			RunNo:	9189			
Prep Date:	3/13/2013	Analysis Date:	3/14/2013			SeqNo:	261311	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	210	0.50	23.90	129.8	325	75	125	17.2	20	S
Cadmium	25	0.50	23.90	0	103	75	125	1.03	20	
Chromium	32	1.5	23.90	5.195	111	75	125	3.02	20	
Copper	32	1.5	23.90	9.731	93.6	75	125	0.0322	20	
Nickel	29	2.5	23.90	4.415	101	75	125	0.422	20	
Silver	4.8	1.2	4.781	0	100	75	125	2.61	20	

Sample ID	MB-6458	SampType:	MBLK			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	PBS	Batch ID:	6458			RunNo:	9239			
Prep Date:	3/13/2013	Analysis Date:	3/18/2013			SeqNo:	263002	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	2.5								

Sample ID	LCS-6458	SampType:	LCS			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	LCSS	Batch ID:	6458			RunNo:	9239			
Prep Date:	3/13/2013	Analysis Date:	3/18/2013			SeqNo:	263003	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	24	2.5	25.00	0	94.1	80	120			

Sample ID	1303459-003AMS	SampType:	MS			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	SC-3	Batch ID:	6458			RunNo:	9239			
Prep Date:	3/13/2013	Analysis Date:	3/18/2013			SeqNo:	263561	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	31	12	23.95	0	131	75	125			S
Lead	29	1.2	23.95	0	123	75	125			
Selenium	23	12	23.95	0	98.1	75	125			
Zinc	63	12	23.95	0	261	75	125			S

Sample ID	1303459-003AMSD	SampType:	MSD			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	SC-3	Batch ID:	6458			RunNo:	9239			
Prep Date:	3/13/2013	Analysis Date:	3/18/2013			SeqNo:	263562	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	12	23.90	0	107	75	125	20.3	20	R
Lead	30	1.2	23.90	0	125	75	125	1.68	20	S
Selenium	21	12	23.90	0	87.6	75	125	11.4	20	
Zinc	59	12	23.90	0	247	75	125	5.77	20	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303459**

29-Mar-13

Client: Animas Environmental Services

Project: CoP Ute #12 March 2013

Sample ID **mb-6438**	SampType: **MBLK**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **6438**	RunNo: **9181**
Prep Date: **3/12/2013**	Analysis Date: **3/14/2013**	SeqNo: **261843** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	1.1	5.0								J
Surr: BFB	450		500.0		90.3	70	130			

Sample ID **LCS-6438**	SampType: **LCS**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **6438**	RunNo: **9181**
Prep Date: **3/12/2013**	Analysis Date: **3/14/2013**	SeqNo: **261844** 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	95.9	74.6	137			
Surr: BFB	440		500.0		87.2	70	130			

Sample ID **1303408-005AMS**	SampType: **MS**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **6438**	RunNo: **9181**
Prep Date: **3/12/2013**	Analysis Date: **3/15/2013**	SeqNo: **261857** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	24.13	1.017	90.7	50.3	148			
Surr: BFB	420		482.6		86.3	70	130			

Sample ID **1303408-005AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **6438**	RunNo: **9181**
Prep Date: **3/12/2013**	Analysis Date: **3/15/2013**	SeqNo: **261858** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	24.15	1.017	89.5	50.3	148	1.22	20	
Surr: BFB	420		483.1		86.6	70	130	0	0	

Qualifiers:

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

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: 1303459

Received by/date: AG 03/12/13

Logged By: **Michelle Garcia** 3/12/2013 9:53:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 3/12/2013 11:47:33 AM Michelle Garcia

Reviewed By: 03/12/13

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

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

Project Name:
CoP Ute #12 March 2013

Project #:

Project Manager:
D. Watson

Sampler: H. Woods / D. Watson

On Ice: ☒ Yes ☐ No

Sample Temperature: 0.8

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. 1303459
3/8/13	1425	Soil	SC-1	3-4 oz	—	-001
3/8/13	1429	Soil	SC-2	3-4 oz	—	-002
3/8/13	1435	Soil	SC-3	3-4 oz	—	-003

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	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) 300.0 Cl	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	COGCC Table 910-1 Soil				Air Bubbles (Y or N)
							X				X				
							X				X				
							X				X				

Date	Time	Relinquished by:	Received by:	Date	Time
3/11/13	1636	Heather M. Woods	Christa Walters	3/11/13	1636
3/11/13	1730	Christa Walters		03/12	130953

Remarks: Bill to ConocoPhillips
WO: 9479804
Supervisor: Richard Lopez
User ID: GARRECD
Area: 1
Ordered by: Crystal Tafoya

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

May 31, 2013

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

RE: COP Ute #12 OrderNo.: 1305949

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/23/2013 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. 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 qualifers 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.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: COP Ute #12
Lab ID: 1305949-001 **Matrix:** SOIL

Client Sample ID: ~~SC-1~~ SC-21 lrc
Collection Date: 5/22/2013 9:35:00 AM
Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: **JME**	
Diesel Range Organics (DRO)	22	6.2	10		mg/Kg	1	5/24/2013 3:21:28 PM	7579
Motor Oil Range Organics (MRO)	ND	50	50		mg/Kg	1	5/24/2013 3:21:28 PM	7579
Surr: DNOP	92.3	0	63-147		%REC	1	5/24/2013 3:21:28 PM	7579
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	0.91	4.7		mg/Kg	1	5/24/2013 10:07:18 PM	7587
Surr: BFB	95.7	0	80-120		%REC	1	5/24/2013 10:07:18 PM	7587
EPA METHOD 8021B: VOLATILES							Analyst: **DAM**	
Benzene	ND	0.0029	0.047		mg/Kg	1	5/24/2013 10:07:18 PM	7587
Toluene	ND	0.0030	0.047		mg/Kg	1	5/24/2013 10:07:18 PM	7587
Ethylbenzene	ND	0.0033	0.047		mg/Kg	1	5/24/2013 10:07:18 PM	7587
Xylenes, Total	0.014	0.011	0.094	J	mg/Kg	1	5/24/2013 10:07:18 PM	7587
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	1	5/24/2013 10:07:18 PM	7587
EPA METHOD 7471: MERCURY							Analyst: **IDC**	
Mercury	0.036	0.0016	0.033		mg/kg	1	5/29/2013 11:45:42 AM	7635
EPA METHOD 6010B: SOIL METALS							Analyst: **ELS**	
Arsenic	4.0	1.3	5.0	J	mg/Kg	2	5/29/2013 7:45:22 AM	7618
Barium	200	0.30	0.49		mg/Kg	5	5/29/2013 8:28:20 AM	7618
Cadmium	ND	0.054	0.20		mg/Kg	2	5/29/2013 7:45:22 AM	7618
Chromium	8.5	0.24	0.60		mg/Kg	2	5/29/2013 7:45:22 AM	7618
Copper	11	0.46	0.60		mg/Kg	2	5/29/2013 7:45:22 AM	7618
Lead	7.7	0.44	0.50		mg/Kg	2	5/29/2013 7:45:22 AM	7618
Nickel	9.1	0.33	1.0		mg/Kg	2	5/29/2013 7:45:22 AM	7618
Selenium	ND	2.8	5.0		mg/Kg	2	5/29/2013 7:45:22 AM	7618
Silver	ND	0.071	0.50		mg/Kg	2	5/29/2013 7:45:22 AM	7618
Zinc	47	2.0	5.0		mg/Kg	2	5/29/2013 7:45:22 AM	7618
SAR SOLUBLE CATIONS							Analyst: **JLF**	
Calcium	190	0.49	1.0		mg/L	1	5/29/2013 12:56:00 PM	7628
Magnesium	64	0.34	1.0		mg/L	1	5/29/2013 12:56:00 PM	7628
Sodium	2100	0.88	1.0		mg/L	1	5/29/2013 12:56:00 PM	7628
Sodium Adsorption Ratio	34	0	0			1	5/29/2013 12:56:00 PM	7628
EPA METHOD 8270C: PAHS							Analyst: **JDC**	
Naphthalene	ND	0.0043	0.020		mg/Kg	1	5/28/2013 9:13:43 PM	7613
Acenaphthene	ND	0.0057	0.020		mg/Kg	1	5/28/2013 9:13:43 PM	7613
Fluorene	ND	0.0041	0.020		mg/Kg	1	5/28/2013 9:13:43 PM	7613
Anthracene	ND	0.0031	0.020		mg/Kg	1	5/28/2013 9:13:43 PM	7613
Fluoranthene	ND	0.0035	0.020		mg/Kg	1	5/28/2013 9:13:43 PM	7613
Pyrene	ND	0.0048	0.020		mg/Kg	1	5/28/2013 9:13:43 PM	7613

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
P	Sample pH greater than 2 for VOA and TOC only.	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
Project: COP Ute #12
Lab ID: 1305949-001 **Matrix:** SOIL

Client Sample ID: ~~SC-1~~ SC-21 lrc
Collection Date: 5/22/2013 9:35:00 AM
Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: PAHS							Analyst: **JDC**	
Benz(a)anthracene	ND	0.0057	0.020		mg/Kg	1	5/28/2013 9:13:43 PM	7613
Chrysene	ND	0.0038	0.020		mg/Kg	1	5/28/2013 9:13:43 PM	7613
Benzo(b)fluoranthene	0.012	0.0047	0.020	J	mg/Kg	1	5/28/2013 9:13:43 PM	7613
Benzo(k)fluoranthene	0.0083	0.0058	0.020	J	mg/Kg	1	5/28/2013 9:13:43 PM	7613
Benzo(a)pyrene	ND	0.0039	0.020		mg/Kg	1	5/28/2013 9:13:43 PM	7613
Dibenz(a,h)anthracene	ND	0.0039	0.020		mg/Kg	1	5/28/2013 9:13:43 PM	7613
Indeno(1,2,3-cd)pyrene	ND	0.0078	0.020		mg/Kg	1	5/28/2013 9:13:43 PM	7613
Surr: Benzo(e)pyrene	86.0	0	54.9-125		%REC	1	5/28/2013 9:13:43 PM	7613
Surr: N-hexadecane	84.6	0	54.7-111		%REC	1	5/28/2013 9:13:43 PM	7613
CONDUCTANCE							Analyst: **JML**	
Specific Conductance	2400	0	1.0		µmhos/c	1	5/30/2013 4:41:00 PM	R10980

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
P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

May 30, 2013

ESC Sample # : L637642-01

Date Received : May 24, 2013
Description :

Site ID :

Sample ID : 1305949-001B SC-1 SC-21 lrc

Project # :

Collected By :
Collection Date : 05/22/13 09:35

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	10.	mg/kg	3060A/7196A	05/28/13	5
ORP	230		mV	2580 B-2011	05/28/13	1
pH	8.8		su	9045D	05/29/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

Reported: 05/30/13 10:11 Printed: 05/30/13 10:12
L637642-01 (CR6) - diluted due to sample color
L637642-01 (PH) - 8.8@21.6c

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L637642

May 30, 2013

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Chromium,Hexavalent	< 2	mg/kg			WG663011	05/28/13 13:55

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Chromium,Hexavalent	mg/kg	16.0	13.0	18.2	20	L637431-01	WG663011
Chromium,Hexavalent	mg/kg	5.80	7.30	22.2*	20	L636947-01	WG663011
ORP	mV	180.	160.	11.8	20	L637268-01	WG662957
ORP	mV	440.	440.	0	20	L637431-01	WG662957
pH	su	8.00	7.90	0.757	1	L637174-18	WG663557
pH	su	7.50	7.50	0.133	1	L637174-21	WG663557

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Chromium,Hexavalent	mg/kg	146	148.	101.	80-120	WG663011
ORP	mV	228	223.	97.8	95.6-104.	WG662957
pH	su	5.79	5.80	100.	98.3-101.7	WG663557

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Chromium,Hexavalent	mg/kg	140.	148.	96.0	80-120	5.56	20	WG663011
ORP	mV	221.	223.	97.0	95.6-104.	0.901	20	WG662957
pH	su	5.80	5.80	100.	98.3-101.7	0	20	WG663557

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Chromium,Hexavalent	mg/kg	5.20	0	20	5.20*	75-125	L637164-01	WG663011

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Chromium,Hexavalent	mg/kg	6.12	5.20	6.12*	75-125	16.3	20	L637164-01	WG663011

Batch number /Run number / Sample number cross reference

WG663011: R2685421: L637642-01
WG662957: R2685740: L637642-01
WG663557: R2687740: L637642-01

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305949**

31-May-13

Client: Animas Environmental

Project: COP Ute #12

Sample ID	MB-7579	SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	7579		RunNo:	10810				
Prep Date:	5/23/2013	Analysis Date:	5/23/2013		SeqNo:	306110	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	63	147			

Sample ID	LCS-7579	SampType:	LCS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	7579		RunNo:	10810				
Prep Date:	5/23/2013	Analysis Date:	5/23/2013		SeqNo:	306204	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.1	77.1	128			
Surr: DNOP	5.9		5.000		119	63	147			

Sample ID	1305873-001AMS	SampType:	MS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	7560		RunNo:	10862				
Prep Date:	5/22/2013	Analysis Date:	5/24/2013		SeqNo:	307309	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		4.965		103	63	147			

Sample ID	1305873-001AMSD	SampType:	MSD		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	7560		RunNo:	10862				
Prep Date:	5/22/2013	Analysis Date:	5/24/2013		SeqNo:	307310	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.2		5.030		103	63	147	0	0	

Sample ID	1305918-001AMS	SampType:	MS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	7579		RunNo:	10884				
Prep Date:	5/23/2013	Analysis Date:	5/28/2013		SeqNo:	307884	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	20	49.85	0	83.6	61.3	138			
Surr: DNOP	6.6		4.985		132	63	147			

Sample ID	1305918-001AMSD	SampType:	MSD		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	7579		RunNo:	10884				
Prep Date:	5/23/2013	Analysis Date:	5/28/2013		SeqNo:	307885	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	20	49.70	0	89.4	61.3	138	6.38	20	
Surr: DNOP	6.5		4.970		130	63	147	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305949**

31-May-13

Client: Animas Environmental

Project: COP Ute #12

Sample ID **MB-7587**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **7587**	RunNo: **10880**
Prep Date: **5/23/2013**	Analysis Date: **5/24/2013**	SeqNo: **307514** 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	960		1000		96.0	80	120			

Sample ID **LCS-7587**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **7587**	RunNo: **10880**
Prep Date: **5/23/2013**	Analysis Date: **5/24/2013**	SeqNo: **307516** 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	109	62.6	136			
Surr: BFB	1000		1000		101	80	120			

Sample ID **1305949-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SC-1**	Batch ID: **7587**	RunNo: **10880**
Prep Date: **5/23/2013**	Analysis Date: **5/24/2013**	SeqNo: **307518** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	34	4.6	23.23	0	148	70	130			S
Surr: BFB	1100		929.4		122	80	120			S

Sample ID **1305949-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SC-1**	Batch ID: **7587**	RunNo: **10880**
Prep Date: **5/23/2013**	Analysis Date: **5/24/2013**	SeqNo: **307519** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.6	23.21	0	129	70	130	14.2	22.1	
Surr: BFB	1100		928.5		117	80	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305949**

31-May-13

Client: Animas Environmental

Project: COP Ute #12

Sample ID **MB-7587**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **7587**	RunNo: **10880**
Prep Date: **5/23/2013**	Analysis Date: **5/24/2013**	SeqNo: **307478** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	0.0087	0.050								J
Ethylbenzene	ND	0.050								
Xylenes, Total	0.015	0.10								J
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID **LCS-7587**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **7587**	RunNo: **10880**
Prep Date: **5/23/2013**	Analysis Date: **5/24/2013**	SeqNo: **307480** 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	110	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	108	80	120			
Xylenes, Total	3.3	0.10	3.000	0	109	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID **1305949-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SC-1**	Batch ID: **7587**	RunNo: **10880**
Prep Date: **5/23/2013**	Analysis Date: **5/24/2013**	SeqNo: **307481** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.046	0.9294	0	125	67.2	113			S
Toluene	1.1	0.046	0.9294	0	123	62.1	116			S
Ethylbenzene	1.2	0.046	0.9294	0	127	67.9	127			
Xylenes, Total	3.5	0.093	2.788	0.01401	126	60.6	134			
Surr: 4-Bromofluorobenzene	0.98		0.9294		105	80	120			

Sample ID **1305949-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SC-1**	Batch ID: **7587**	RunNo: **10880**
Prep Date: **5/23/2013**	Analysis Date: **5/24/2013**	SeqNo: **307482** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.046	0.9285	0	123	67.2	113	2.14	14.3	S
Toluene	1.1	0.046	0.9285	0	120	62.1	116	2.57	15.9	S
Ethylbenzene	1.1	0.046	0.9285	0	123	67.9	127	3.05	14.4	
Xylenes, Total	3.5	0.093	2.786	0.01401	124	60.6	134	2.14	12.6	
Surr: 4-Bromofluorobenzene	0.98		0.9285		105	80	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305949**

31-May-13

Client: Animas Environmental

Project: COP Ute #12

Sample ID **mb-7613**	SampType: **MBLK**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **PBS**	Batch ID: **7613**	RunNo: **10909**
Prep Date: **5/27/2013**	Analysis Date: **5/28/2013**	SeqNo: **308398** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.020								
Acenaphthene	ND	0.020								
Fluorene	ND	0.020								
Anthracene	ND	0.020								
Fluoranthene	ND	0.020								
Pyrene	ND	0.020								
Benz(a)anthracene	ND	0.020								
Chrysene	ND	0.020								
Benzo(b)fluoranthene	ND	0.020								
Benzo(k)fluoranthene	ND	0.020								
Benzo(a)pyrene	ND	0.020								
Dibenz(a,h)anthracene	ND	0.020								
Indeno(1,2,3-cd)pyrene	ND	0.020								
Surr: Benzo(e)pyrene	0.33		0.3300		99.6	54.9	125			
Surr: N-hexadecane	1.4		1.460		93.7	54.7	111			

Sample ID **lcs-7613**	SampType: **LCS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSS**	Batch ID: **7613**	RunNo: **10909**
Prep Date: **5/27/2013**	Analysis Date: **5/28/2013**	SeqNo: **308399** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.31	0.020	0.3300	0	93.8	42.5	118			
Acenaphthene	0.31	0.020	0.3300	0	92.9	47.5	125			
Fluorene	0.31	0.020	0.3300	0	93.4	49.1	120			
Anthracene	0.31	0.020	0.3300	0	94.4	42.9	130			
Fluoranthene	0.30	0.020	0.3300	0	91.5	37	134			
Pyrene	0.31	0.020	0.3300	0	94.4	46.4	126			
Benz(a)anthracene	0.32	0.020	0.3300	0	97.9	50.6	126			
Chrysene	0.30	0.020	0.3300	0	90.3	36.8	123			
Benzo(b)fluoranthene	0.33	0.020	0.3300	0	101	47.2	130			
Benzo(k)fluoranthene	0.29	0.020	0.3300	0	87.0	40	122			
Benzo(a)pyrene	0.29	0.020	0.3300	0	86.5	44	118			
Dibenz(a,h)anthracene	0.34	0.020	0.3300	0	102	53.3	131			
Indeno(1,2,3-cd)pyrene	0.33	0.020	0.3300	0	99.8	52	126			
Surr: Benzo(e)pyrene	0.32		0.3300		95.6	54.9	125			
Surr: N-hexadecane	1.3		1.460		91.7	54.7	111			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305949**

31-May-13

Client: Animas Environmental

Project: COP Ute #12

Sample ID **1305572-012Ams**	SampType: **MS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **BatchQC**	Batch ID: **7613**	RunNo: **10909**
Prep Date: **5/27/2013**	Analysis Date: **5/28/2013**	SeqNo: **308410** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	0.27	0.020	0.3314	0	82.2	50.2	114			
Fluorene	0.32	0.020	0.3314	0.06576	76.7	55.3	107			
Anthracene	0.26	0.020	0.3314	0	79.8	54.9	116			
Fluoranthene	0.28	0.020	0.3314	0.01694	79.6	55.2	119			
Pyrene	0.35	0.020	0.3314	0.03122	95.1	60.2	115			
Benz(a)anthracene	0.30	0.020	0.3314	0.006310	88.6	61.9	120			
Chrysene	0.30	0.020	0.3314	0.007307	87.7	42.5	117			
Benzo(b)fluoranthene	0.35	0.020	0.3314	0.007971	102	57.4	124			
Benzo(k)fluoranthene	0.29	0.020	0.3314	0.006642	86.9	52.6	107			
Benzo(a)pyrene	0.26	0.020	0.3314	0	78.5	55.7	106			
Dibenz(a,h)anthracene	0.34	0.020	0.3314	0	102	51.8	130			
Indeno(1,2,3-cd)pyrene	0.32	0.020	0.3314	0	96.3	56.8	120			
Surr: Benzo(e)pyrene	0.34		0.3314		103	54.9	125			
Surr: N-hexadecane	1.4		1.466		92.4	54.7	111			

Sample ID **1305572-012Amsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **BatchQC**	Batch ID: **7613**	RunNo: **10909**
Prep Date: **5/27/2013**	Analysis Date: **5/28/2013**	SeqNo: **308411** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	0.32	0.020	0.3310	0	96.4	50.2	114	15.7	20.5	
Fluorene	0.37	0.020	0.3310	0.06576	92.8	55.3	107	15.2	20	
Anthracene	0.33	0.020	0.3310	0	98.4	54.9	116	20.7	26.6	
Fluoranthene	0.36	0.020	0.3310	0.01694	103	55.2	119	24.2	23.7	R
Pyrene	0.38	0.020	0.3310	0.03122	104	60.2	115	8.38	29.3	
Benz(a)anthracene	0.35	0.020	0.3310	0.006310	104	61.9	120	15.6	25.4	
Chrysene	0.32	0.020	0.3310	0.007307	95.5	42.5	117	8.16	27.6	
Benzo(b)fluoranthene	0.44	0.020	0.3310	0.007971	130	57.4	124	23.1	20	SR
Benzo(k)fluoranthene	0.34	0.020	0.3310	0.006642	102	52.6	107	15.5	31.3	
Benzo(a)pyrene	0.33	0.020	0.3310	0	99.3	55.7	106	23.3	22.1	R
Dibenz(a,h)anthracene	0.42	0.020	0.3310	0	127	51.8	130	21.7	21.2	R
Indeno(1,2,3-cd)pyrene	0.41	0.020	0.3310	0	123	56.8	120	24.5	20.4	SR
Surr: Benzo(e)pyrene	0.40		0.3310		121	54.9	125	0	0	
Surr: N-hexadecane	1.6		1.464		106	54.7	111	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305949**

31-May-13

Client: Animas Environmental

Project: COP Ute #12

Sample ID **1305A05-003ADUP**	SampType: **DUP**	TestCode: **CONDUCTANCE**
Client ID: **BatchQC**	Batch ID: **R10980**	RunNo: **10980**
Prep Date:	Analysis Date: **5/30/2013**	SeqNo: **310454** Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Conductance	5000	1.0						2.94	20	

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
P	Sample pH greater than 2 for VOA and TOC only.	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#: **1305949**

31-May-13

Client: Animas Environmental

Project: COP Ute #12

Sample ID	**MB-7635**	SampType: **MBLK**			TestCode: **EPA Method 7471: Mercury**					
Client ID:	**PBS**	Batch ID: **7635**			RunNo: **10928**					
Prep Date:	**5/28/2013**	Analysis Date: **5/29/2013**			SeqNo: **309005**		Units: **mg/kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	**LCS-7635**	SampType: **LCS**			TestCode: **EPA Method 7471: Mercury**					
Client ID:	**LCSS**	Batch ID: **7635**			RunNo: **10928**					
Prep Date:	**5/28/2013**	Analysis Date: **5/29/2013**			SeqNo: **309006**		Units: **mg/kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	104	80	120			

Sample ID	**1305837-011AMS**	SampType: **ms**			TestCode: **EPA Method 7471: Mercury**					
Client ID:	**BatchQC**	Batch ID: **7635**			RunNo: **10928**					
Prep Date:	**5/28/2013**	Analysis Date: **5/29/2013**			SeqNo: **309020**		Units: **mg/kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1658	0.002587	100	75	125			

Sample ID	**1305837-011AMSD**	SampType: **msd**			TestCode: **EPA Method 7471: Mercury**					
Client ID:	**BatchQC**	Batch ID: **7635**			RunNo: **10928**					
Prep Date:	**5/28/2013**	Analysis Date: **5/29/2013**			SeqNo: **309021**		Units: **mg/kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1649	0.002587	102	75	125	1.34	20	

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
P	Sample pH greater than 2 for VOA and TOC only.	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#: **1305949**

31-May-13

Client: Animas Environmental

Project: COP Ute #12

Sample ID	**LCS-7618**	SampType: **LCS**		TestCode: **EPA Method 6010B: Soil Metals**					
Client ID:	**LCSS**	Batch ID: **7618**		RunNo: **10919**					
Prep Date:	**5/28/2013**	Analysis Date: **5/29/2013**		SeqNo: **308671**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.00	0	99.7	80	120			
Barium	24	0.10	25.00	0	95.2	80	120			
Cadmium	23	0.10	25.00	0	93.8	80	120			
Chromium	24	0.30	25.00	0	95.6	80	120			
Copper	25	0.30	25.00	0	98.6	80	120			
Lead	23	0.25	25.00	0	93.9	80	120			
Nickel	23	0.50	25.00	0	91.2	80	120			
Selenium	22	2.5	25.00	0	87.3	80	120			
Silver	5.0	0.25	5.000	0	99.2	80	120			
Zinc	23	2.5	25.00	0	93.5	80	120			

Sample ID	**MB-7618**	SampType: **MBLK**		TestCode: **EPA Method 6010B: Soil Metals**					
Client ID:	**PBS**	Batch ID: **7618**		RunNo: **10919**					
Prep Date:	**5/28/2013**	Analysis Date: **5/29/2013**		SeqNo: **308678**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	ND	0.30								
Lead	ND	0.25								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Zinc	ND	2.5								

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
P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

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: 1305949 | RcptNo: 1

Received by/date:		05/23/13	
Logged By:	Lindsay Mangin	5/23/2013 10:00:00 AM	
Completed By:	Lindsay Mangin	5/23/2013 10:38:57 AM	
Reviewed By:	IO	05/23/2013	

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	1.1	Good	Yes			

Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 624 E. Comanche

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 5 day TAT

Project Name: CoP Ute #12

Project #:

Project Manager: D. Watson

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.1

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 #	Preservative Type	HEAL No. 1305949	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	COGCC 910-1 Soils Table				Air Bubbles (Y or N)
5/22/13	9:35	Soil	SC-1	3-8oz jars	non	-001												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/23/13	620	Kelsey Christensen	Christine Waele	5/23/13	620
5/23/13	645	Christine Waele	[signature]	05/23/13	1000

Remarks: Bill to ConocoPhillips

Area: 1

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