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**

Revised August 8, 2011

Form C-141

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

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

#### **Release Notification and Corrective Action OPERATOR** Initial Report Final Report Name of Company ConocoPhillips Company Contact Crystal Tafoya Telephone No.(505) 326-9837 Address 3401 East 30<sup>th</sup> St, Farmington, NM Facility Name: Lindrith B Unit 2 Facility Type: Gas Well API No.30-039-22138 Surface Owner BLM Mineral Owner BLM (SF-078914) LOCATION OF RELEASE Unit Letter Section Feet from the North/South Line Feet from the East/West Line County Township Range 28 3W1739 South 861 West Rio Arriba 24N Latitude 36.2789 Longitude 107.16738 NATURE OF RELEASE Volume of Release Type of Release **Produced Fluids** 120 yds Volume Recovered Source of Release Date and Hour of Occurrence Date and Hour of Discovery 3/15/2012 If YES, To Whom? Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required By Whom? Date and Hour Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. ☐ Yes ☒ No If a Watercourse was Impacted, Describe Fully.\* RCVD AUG 23'12 N/A OIL CONS. DIV. <del>DIST. 3</del> Describe Cause of Problem and Remedial Action Taken.\* **Below Grade Tank Closure Activites** Describe Area Affected and Cleanup Action Taken.\* Historical hydrocarbon impacted soil was found during the BGT closure for the subject well. The excavation was 30'X40'X9' and 120vds of soil was transported to TNT landfarm and 120yds of clean soil was transported from Lindrith Oil Field and placed in the excavation site. The soil sampling report is attached for review. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. OIL CONSERVATION DIVISION Signature: Approved by Environmental Specialist: Printed Name: Crystal Tafoya Approval Date: **Expiration Date:** Title: Field Environmental Specialist

Date: 8/23/12 \* Attach Additional Sheets If Necessary

E-mail Address: crystal.tafoya@conocophillips.com

Phone: (505) 326-9837

ntk 122-5055257

Conditions of Approval:

Attached

AES

April 17, 2012

Ashley Maxwell ConocoPhillips San Juan Business Unit Office 216-2 5525 Hwy 64 Farmington, NM 87401 Animas Environmental Services, LLC

www.animasenvironmental.com

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

> Durango, Colorado 970-403-3274

RE: Initial Release Assessment and Final Excavation Report Lindrith B #2

Rio Arriba County, New Mexico

Dear Ms. Maxwell:

On March 9 and 23, 2012, Animas Environmental Services, LLC (AES) completed an initial and final assessment of a release excavation at the Lindrith B #2, located in Rio Arriba County, New Mexico. The initial release assessment and excavation was completed by CoP contractors prior to AES' arrival to the location on March 9, 2012. The final excavation was also completed by contractors prior to AES' arrival to the location on March 23, 2012. The historical release was reported to be from the former production tank at the location.

#### 1.0 Site Information

#### 1.1 Location

Location - NW¼ SW¼, Section 28, T24N, R3W, Rio Arriba County, New Mexico Well Head Latitude/Longitude - N36.27890 and W107.16807, respectively Release Location Latitude/Longitude - N36.27866 and W107.16848, respectively Land Jurisdiction - Private

Figure 1 - Topographic Site Location Map

Figure 2 - General Site Map, March 2012

Figure 3 – Initial Assessment Soil Sample Locations and Results, March 2012

Figure 4 – Final Excavation Soil Sample Locations and Results, March 2012

#### 1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and no prior ranking information was located. Additionally, the New Mexico Office of the State Engineer (NMOSE) database was reviewed, and no registered water wells are located within 1,000 feet of the location. Once on site, AES personnel

assessed the ranking using topographical interpretation, Global Positioning System (GPS) elevation readings, and visual reconnaissance. AES personnel concluded that depth to groundwater at the site was between 50 to 100 feet below ground surface (bgs), and the location is not within a well-head protection area. The site is located approximately 200 to 300 feet southwest of a livestock pond which discharges to Medio Wash. The site was assessed a NMOCD ranking of 20.

#### 1.3 Initial Release Assessment

AES was initially contacted by Ashley Maxwell of CoP on March 9, 2012, and the same day, Ross Kennemer and Tami Ross of AES completed the release assessment field work. The assessment included collection and field screening of five point composite samples from each wall and the base of an existing release excavation, for a total of five soil samples. Based on the field screening results, AES recommended further excavation of the release area. Sample locations and excavation extents are shown on Figure 3.

On March 23, 2012, AES returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collecting 10 confirmation soil samples of the walls and base of the excavation. The final excavation was approximately 53 feet by 41 feet by 8 feet in depth. While on site, AES identified an area of concern near soil sample SC-8 where visible soil contamination was observed and confirmed during field screening. An additional 10 cubic yards of soil were removed from this area of concern while AES was on site, and sample SC-9 was collected following the additional excavation. Sample locations and final excavation extents are shown on Figure 4.

#### 2.0 Soil Sampling

A total of 15 5-point composite soil samples were collected from the four walls and the base of the existing excavation during the assessments (EXC-1 through EXC-5 and SC-1 through SC-10). All soil samples were field-screened for volatile organic compounds (VOCs) and were also analyzed for total petroleum hydrocarbons (TPH). Three of the soil samples collected during the initial assessment (EXC-2 through EXC-4) were also submitted to Hall Environmental Analysis Laboratory (Hall) 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 soil samples (EXC-2, EXC-3, and EXC-4) 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, in Albuquerque, New Mexico. Soil samples were laboratory analyzed for:

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

#### 2.3 Field Screening and Laboratory Analytical Results

On March 9, 2012, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 2.3 ppm in EXC-1 up to 1,720 ppm in EXC-3. Field TPH concentrations ranged from 42.1 mg/kg in EXC-1 up to 741 mg/kg in EXC-4.

On March 23, 2012, final excavation field screening results for VOCs via OVM showed concentrations ranging from 0.5 ppm in SC-5 to 14.9 ppm in SC-1. Field TPH concentrations ranged from 20.9 mg/kg in SC-6 up to 185 mg/kg in S-8. Results are included below in Table 1 and on Figures 3 and 4. The AES Field Screening Reports are attached.

Table 1. Soil Field Screening VOCs and TPH Results
Lindrith B #2 Release Assessment and Final Excavation, March 2012

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)
	NMOCD A	ction Level*	100	100
EXC-1	3/9/12	1 to 8	2.3	42.1
EXC-2	3/9/12	1 to 8	261	250
EXC-3	3/9/12	1 to 8	1,720	466
EXC-4	3/9/12	1 to 8	1,712	741
EXC-5	3/9/12	8	14.3	89.5

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)
	NMOCD A	ction Level*	100	100
SC-1	3/23/12	1 to 8	14.9	65.9
SC-2	3/23/12	1 to 8	3.3	71.5
SC-3	3/23/12	1 to 8	4.3	49.0
SC-4	3/23/12	1 to 8	8.6	40.6
SC-5	3/23/12	1 to 8	0.5	86.9
SC-6	3/23/12	1 to 8	2.2	20.9
SC-7	3/23/12	1 to 8	3.7	44.8
SC-8	3/23/12	1 to 8	4.7	185
SC-9	3/23/12	8	5.2	89.0
SC-10	3/23/12	8	NA	26.5

NA – Not Analyzed

Laboratory analyses for EXC-2 through EXC-4 were used to confirm field screening results from the initial assessment. Benzene concentrations ranged from less than 0.50 mg/kg in EXC-2 up to 20 mg/kg in EXC-4, and BTEX concentrations ranged from less than 2.5 mg/kg in EXC-2 up to 433 mg/kg in EXC-4. TPH concentrations (as GRO/DRO) ranged from 415 mg/kg in EXC-2 up to 4,110 mg/kg in EXC-4. Final TPH results over the NMOCD action level of 100 mg/kg were used to provide recommendations for the area needing further excavation. Results are presented in Table 2 and on Figure 3. Laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, BTEX and TPH Lindrith B #2 Release Assessment and Final Excavation, March 2012

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)
NMO	CD Action Le	vel*	10	50	1	00
EXC-2	03/9/12	1 to 8	<0.50	<2.5	85	330
EXC-3	03/9/12	1 to 8	5.8	52	710	1,100
EXC-4	03/9/12	1 to 8	20	433	3,600	510

<sup>\*</sup>Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993)

<sup>\*</sup>Action level determined by the NMOCD ranking score per *NMOCD Guidelines* for Leaks, Spills, and Releases (August 1993)

#### 3.0 Conclusions and Recommendations

On March 9, 2012, AES conducted an initial assessment of an existing excavation associated with a historical release from the former production tank at the Lindrith B #2, located in Rio Arriba County, New Mexico. Field screening showed concentrations above the NMOCD action levels of 100 ppm VOCs and 100 mg/kg TPH in EXC-2, EXC-3, and EXC-4. The highest VOC concentration was 1,720 ppm in EXC-3, and the highest TPH concentration was reported in EXC-4 with 741 mg/kg.

Laboratory analyses collected on March 9, 2012, showed that benzene, total BTEX, and TPH concentrations were above the applicable NMOCD thresholds in EXC-4 with 20 mg/kg benzene, 433 mg/kg BTEX, and 4,110 mg/kg TPH. TPH concentrations were also above the NMOCD action level in EXC-2 (1,810 mg/kg) and EXC-3 (415 mg/kg). Based on field screening and laboratory results, continued excavation was recommended for the location.

On March 23, 2012, a final assessment of the additional excavation area was completed. Field screening results of the excavation extents showed that VOC and TPH concentrations were below applicable NMOCD action levels for all of the final four walls and the base of the excavation. Note that TPH concentrations in SC-8 were reported at 185 mg/kg. Based on this, an additional area of petroleum hydrocarbon soil was removed, and the subsequent sample SC-9 showed a confirmation TPH concentration of 89.0 mg/kg.

Based on the final field screening results of the excavation of petroleum contaminated soils at the Lindrith B #2, VOC and TPH concentrations were below applicable NMOCD action levels. No further work is recommended.

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

Sincerely,

Tami C. Ross, CHMM

Project Manager

Elizabeth McNally, PE

Elizabeth V MeNelly

Ashley Maxwell Lindrith B #2 Release Assessment and Final Excavation Report April 17, 2012 Page 6 of 6

#### Attachments:

Figure 1 - Topographic Site Location Map

Figure 2 – General Site Map

Figure 3 – Initial Assessment Soil Sample Locations and Results, March 2012

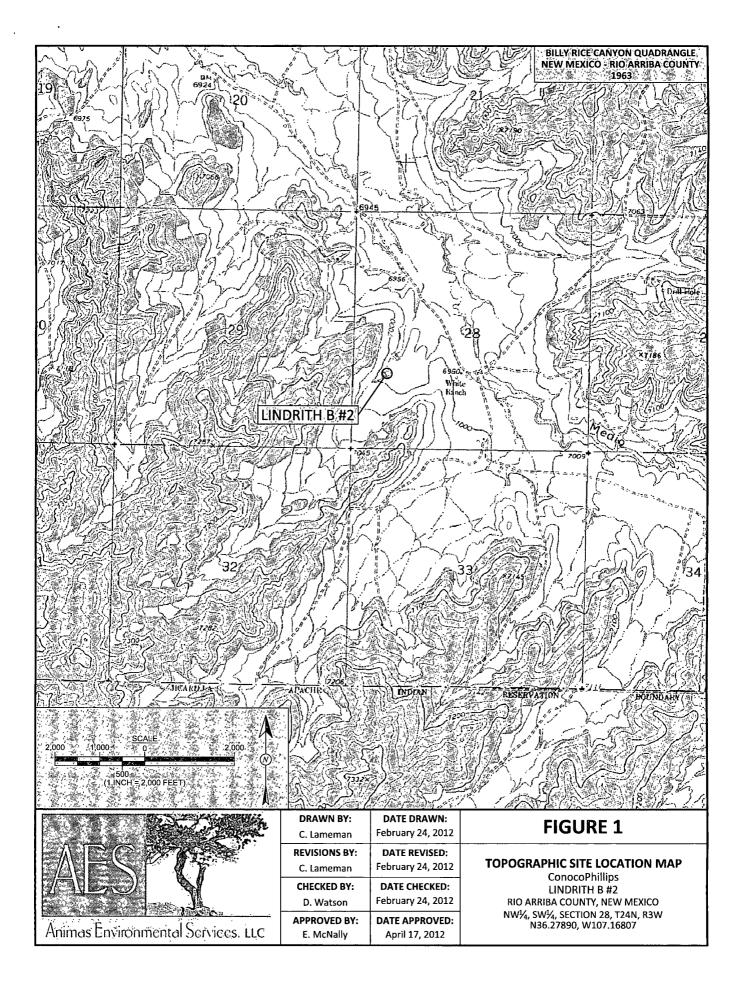
Figure 4 – Final Excavation Soil Sample Locations and Results, March 2012

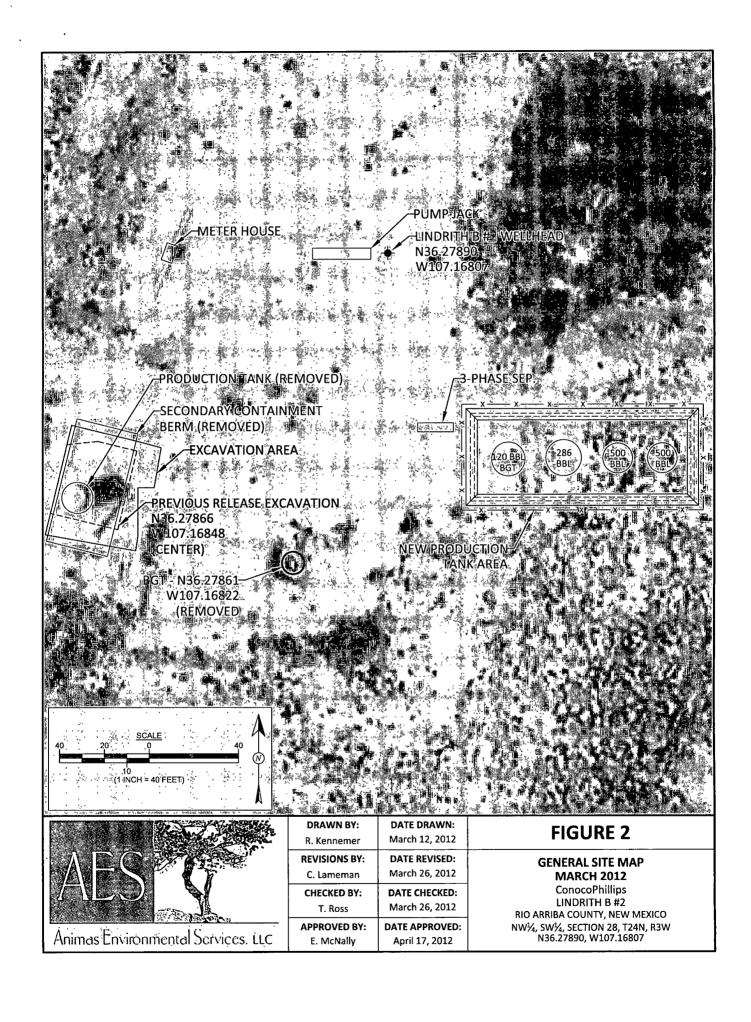
AES Field Screening Report 030912

AES Field Screening Report 032312

Hall Laboratory Analytical Report 1203369

S:\Animas 2000\2012 Projects\Conoco Phillips\Lindrith B #2\Release Assessment March 2012\Lindrith B #2 Release Assessment and Final Excavation Report 041712.docx







SAMPLE LOCATIONS

FIELD SCREENING RESULTS								
SAMPLE ID	DATE	OVM- PID (ppm)	TPH (mg/kg)					
NMOC	D ACTION I	EVEL	100	100				
EXC-1	3/9/12	1 to 8	2.3	- 42.1				
EXC-2	3/9/12	1.to 8	261	250				
EXC-3	3/9/12	1 to 8	1,720	466				
EXC-4	3/9/12	1 to 8	1,712	741				
, EXC-5	3/9/12	8	14.3	89.5				

LABORATORY ANALYTICAL RESULTS								
SAMPLE ID	DATE	BENZENE (mg/kg)	TOTAL BTEX (mg/kg)	TPH - TPH GRO DRO (mg/kg) (mg/				
NMOCD ACTION LEVEL		10	50	10	00			
EXC-2	3/9/12	<0.50	<2.5	68	330			
EXC-3	3/9/12	5.8	52	710	1,100			
EXC-4	3/9/12	20	433	3,600	510			
NOTE: ALL SAMPLES WERE ANALYZED PER EPA METHOD								

8021B AND 8015B. EXC-2 SECONDARY CONTAINMENT BERM (REMOVED) RELEASE EXCAVATION-1,085 FT<sup>2</sup> x 8 FT AVE. DEPTH **⇔** EXC-1 EXC-5 🚯 **∳**EXC-3 PRODUCTION TANK (REMOVED) EXC-4 (1 INCH = 10 FEET)

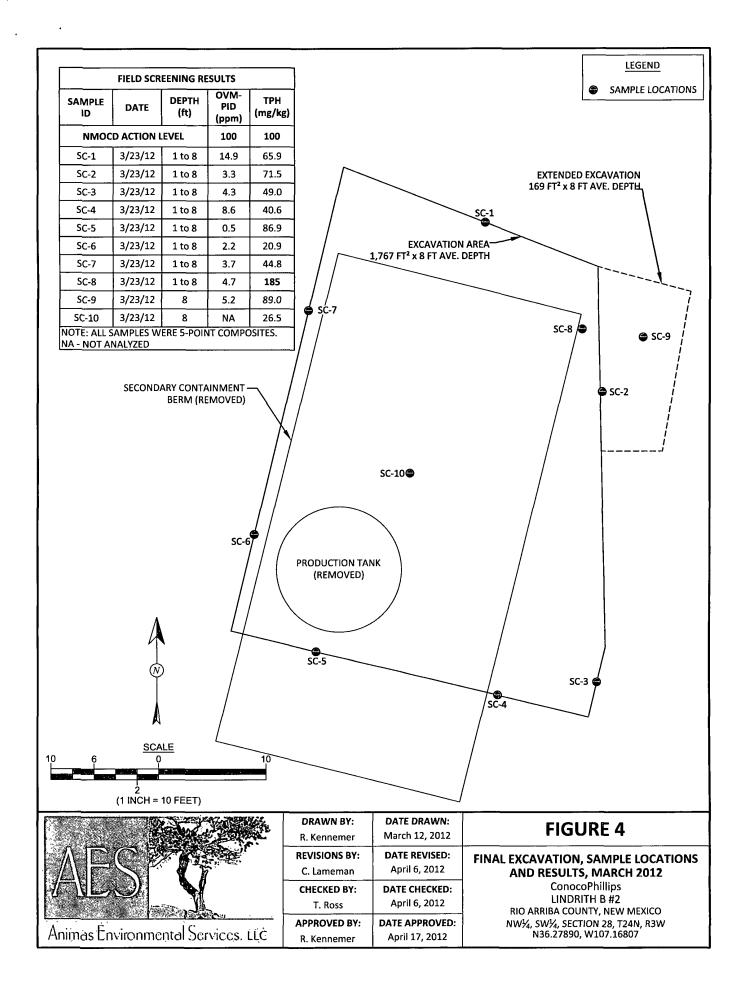


DRAWN BY:	DATE DRAWN:
R. Kennemer	March 12, 2012
REVISIONS BY:	DATE REVISED:
C. Lameman	April 6, 2012
CHECKED BY:	DATE CHECKED:
T. Ross	April 6, 2012
APPROVED BY:	DATE APPROVED:
R. Kennemer	April 17, 2012

# FIGURE 3

# INITIAL ASSESSMENT SOIL SAMPLE LOCATIONS AND RESULTS MARCH 2012

ConocoPhillips LINDRITH B #2 RIO ARRIBA COUNTY, NEW MEXICO NW¼, SW¼, SECTION 28, T24N, R3W N36.27890, W107.16807



# **AES Field Screening Report**

AES

Animas Environmental Services, LLC

www.animasenvironmental.com

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

Sami Ross

Durango, Colorado 970-403-3274

Client: ConocoPhillips

Project Location: Lindrith B #2

Date: 3/9/2012

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts
EXC-1	3/9/2012	10:45	2.3	11:21	42.1	20.0	1	TCR
EXC-2	3/9/2012	10:48	261	11:22	250	20.0	1	TCR
EXC-3	3/9/2012	10:52	1,720	11:23	466	20.0	1	TCR
EXC-4	3/9/2012	10:55	1,712	11:24	741	20.0	1	TCR
EXC-5	3/9/2012	10:57	14.3	11:25	89.5	20.0	1	TCR

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**

AES C

Animas Environmental Services: LLC

www.animasenvironmental.com

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

Jami Ross

Durango, Colorado 970-403-3274

Client: ConocoPhillips

Project Location: Lindrith B #2

Date: 3/23/2012

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	ÐF	TPH Analysts Initials
SC-1	3/23/2012	12:10	14.9	13:35	65.9	20.0	1	TCR
SC-2	3/23/2012	12:13	3.3	13:39	71.5	20.0	1	TCR
SC-3	3/23/2012	12:17	4.3	13:43	49.0	20.0	1	TCR
SC-4	3/23/2012	12:22	8.6	13:50	40.6	20.0	1	TCR
SC-5	3/23/2012	12:40	0.5	13:54	86.9	20.0	1	TCR
SC-6	3/23/2012	12:45	2.2	13:59	20.9	20.0	1	TCR
SC-7	3/23/2012	12:50	3.7	14:04	44.8	20.0	1	TCR
SC-8	3/23/2012	15:30	4.7	15:40	185	20.0	1	TCR
SC-9	3/23/2012	16:05	5.2	16:15	89.0	20.0	1	TCR
SC-10	3/23/2012	16:15	NA	14:20	26.5	20.0	1	TCR

Total Petroleum Hydrocarbons - USEPA 418.1

PQL Practical Quantitation Limit

Not Detected at the Reporting Limit

DF Dilution Factor
NA Not Analyzed

ND

\*Field TPH analyzed on March 23 and 25, 2012

Analyst:



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

March 13, 2012

Ross Kennemer
Animas Environmental Services
624 East Comanche
Farmington, NM 87401

TEL: (505) 564-2281 FAX (505) 324-2022

RE: Lindrith B #2 Release Assessment OrderNo.: 1203369

#### Dear Ross Kennemer:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/10/2012 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

andy

4901 Hawkins NE

Albuquerque, NM 87109

#### **Analytical Report**

#### Lab Order 1203369

Date Reported: 3/13/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

**Project:** Lindrith B #2 Release Assessment

Collection Date: 3/9/2012 10:48:00 AM

Client Sample ID: SC-2

**Lab ID:** 1203369-001

Matrix: MEOH (SOIL)

Received Date: 3/10/2012 10:40:00 AM

Analyses	Result	RL (	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS					Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	330	9.9		mg/Kg	1	3/12/2012 9:41:40 AM
Surr. DNOP	94 0	77.4-131		%REC	1	3/12/2012 9.41:40 AM
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: RAA
Gasoline Range Organics (GRO)	85	50		mg/Kg	10	3/12/2012 11:27:17 AM
Surr: BFB	155	69.7-121	s	%REC	10	3/12/2012 11:27:17 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.50		mg/Kg	10	3/12/2012 11:27·17 AM
Toluene	ND	0 50		mg/Kg	10	3/12/2012 11:27:17 AM
Ethylbenzene	ND	0 50		mg/Kg	10	3/12/2012 11 27.17 AM
Xylenes, Total	1.0	1.0		mg/Kg	10	3/12/2012 11·27·17 AM
Surr 4-Bromofluorobenzene	101	85.3-139		%REC	10	3/12/2012 11 27.17 AM

Qualifiers:

X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Page 1 of 6

#### **Analytical Report**

#### Lab Order 1203369

Date Reported: 3/13/2012

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Client Sample ID: SC-3

Project:

Lindrith B #2 Release Assessment

**Collection Date:** 3/9/2012 10:52:00 AM

**Lab ID:** 1203369-002

Matrix: MEOH (SOIL) Recei

Received Date: 3/10/2012 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS					Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	1,100	100		mg/Kg	10	3/12/2012 10:28:36 AM
Surr DNOP	0	77.4-131	s	%REC	10	3/12/2012 10.28:36 AM
EPA METHOD 8015B: GASOLINE R.	ANGE					Analyst: RAA
Gasoline Range Organics (GRO)	710	100		mg/Kg	20	3/12/2012 11:56:03 AM
Surr: BFB	177	69.7-121	S	%REC	20	3/12/2012 11 56 03 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	5.8	10		mg/Kg	20	3/12/2012 11:56.03 AM
Toluene	21	1.0		mg/Kg	20	3/12/2012 11:56:03 AM
Ethylbenzene	2.2	1.0		mg/Kg	20	3/12/2012 11:56.03 AM
Xylenes, Total	23	2.0		mg/Kg	20	3/12/2012 11:56 <sup>.</sup> 03 AM
Surr 4-Bromofluorobenzene	106	85 3-139		%REC	20	3/12/2012 11:56.03 AM

Qualifiers:

\*/X Value exceeds Maximum Contaminant Level

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Page 2 of 6

#### **Analytical Report**

## Lab Order 1203369

Date Reported: 3/13/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services Client Sample ID: SC-4

 Project:
 Lindrith B #2 Release Assessment
 Collection Date: 3/9/2012 10:55:00 AM

 Lab ID:
 1203369-003
 Matrix: MEOH (SOIL)
 Received Date: 3/10/2012 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE ORGANICS					Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	510	100		mg/Kg	10	3/12/2012 10 06:11 AM
Surr DNOP	0	77 4-131	S	%REC	10	3/12/2012 10:06:11 AM
EPA METHOD 8015B: GASOLINE R	ANGE					Analyst: RAA
Gasoline Range Organics (GRO)	3,600	250		mg/Kg	50	3/12/2012 12.24·44 PM
Surr <sup>.</sup> BFB	162	69 7-121	S	%REC	50	3/12/2012 12:24·44 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	20	2.5		mg/Kg	50	3/12/2012 12:24:44 PM
Toluene	170	2.5		mg/Kg	50	3/12/2012 12.24:44 PM
Ethylbenzene	23	2.5		mg/Kg	50	3/12/2012 12.24:44 PM
Xylenes, Total	220	5.0		mg/Kg	50	3/12/2012 12:24:44 PM
Surr: 4-Bromofluorobenzene	110	85.3-139		%REC	50	3/12/2012 12:24:44 PM

Qua	lifiers:	*/X

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

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1203369

13-Mar-12

Client:

Animas Environmental Services

Project:

Lindrith B #2 Release Assessment

Sample ID MB-1039	Samp	SampType. MBLK			TestCode: EPA Method 8015B: Diesel Range Organics								
Client ID. PBS	Batch ID: 1039			F	RunNo 1	395							
Prep Date. 3/12/2012	Analysis Date. 3/12/2012			SeqNo. 39319			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	8 5		10.00		84.5	77 4	131						

Sample ID LCS-1039	SampT	ype. <b>LC</b>	S	TestCode <sup>·</sup> EPA Method 8015B: Diesel Range Organics									
Client ID: LCSS	Batch	1D: 10	39	F	RunNo 1	395							
Prep Date. 3/12/2012	Analysis D	ate. 3/	12/2012	SeqNo: <b>39351</b>			Units. mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLımit	%RPD	RPDLimit	Qual			
Diesel Range Organics (DRO)	44	10	50.00	0	88.5	62 7	139	_					
Surr DNOP	11		5,000		88 4	77 /	131						

#### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Page 4 of 6

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1203369

13-Mar-12

Client:

Animas Environmental Services

Project:

Lindrith B #2 Release Assessment

Sample ID 1203229-001AMS

SampType. MS

TestCode. EPA Method 8015B: Gasoline Range

Client ID

**BatchQC** 

Batch ID: 986

RunNo: 1404

SeqNo: 40169

Units. %REC

Qual

Analyte

3/7/2012

Analysis Date: 3/12/2012

PQL

SPK value SPK Ref Val %REC

LowLimit

HighLimit

**RPDLimit** %RPD

Qual

Surr BFB

Prep Date.

Result

**PQL** 

980

121

992 1

69 7

99 1

TestCode. EPA Method 8015B: Gasoline Range

Client ID

Sample ID 1203229-001AMSD

SampType. MSD Batch ID: 986

RunNo: 1404

Prep Date

**BatchQC** 3/7/2012

Analysis Date: 3/12/2012

SeqNo: 40171

Units %REC

%RPD

**RPDLimit** 

Analyte Surr BFB Result 960

982.3

SPK value SPK Ref Val

%REC 98.0

LowLimit 69.7

HighLımıt 121

0

0

Qualifiers:

R

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits RPD outside accepted recovery limits

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

Reporting Detection Lunit

Page 5 of 6

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1203369

13-Mar-12

Client:

Animas Environmental Services

Project:

Lindrith B #2 Release Assessment

Sample ID 1203230-001AMS

SampType MS

TestCode: EPA Method 8021B: Volatiles

Client ID:

Analyte

**BatchQC** 

Batch ID: 986

RunNo: 1404

Prep Date: 3/7/2012 Analysis Date: 3/12/2012

SeqNo: 40186

Units: %REC

HighLimit

**RPDLimit** 

Qual

Qual

Surr 4-Bromofluorobenzene

Result

Result

0.9747

SPK value SPK Ref Val %REC LowLimit

0.97

%RPD

99.0

85.3

TestCode: EPA Method 8021B: Volatiles

LowLimit

139

Sample ID 1203230-001AMSD

SampType: MSD Batch ID: 986

RunNo: 1404

Analyte Surr. 4-Bromofluorobenzene

Client ID:

Prep Date

**BatchQC** 3/7/2012

Analysis Date. 3/12/2012

PQL

SeqNo: 40187

Units: %REC HighLimit

%RPD 0

**RPDL**ımit

SPK value SPK Ref Val %REC 100 85.3 0 95 0 9524 139

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits RPD outside accepted recovery limits

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

RL Reporting Detection Limit

Page 6 of 6



tiali Environmental Analysis Laborator) 4901 Hawkins NE Albuquerque, NM 87105

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: Animas Environmental	Work Order Number: 120	3369
Received by/date: 03/12/12		
Logged By: Anne Thome 3/10/2012 10:40:0	0 AM Am I Am I	k
Completed By: Anne Thorne 3/12/2012	Om. A	V.
Reviewed By:	Cina 3)	,
Chain of Custody		
1. Were seals intact?	Yes □ No □ N	Not Present 🗹
2. Is Chain of Custody complete?		lot Present
3. How was the sample delivered?	Courier	
i og in		
<u>Log In</u>	v. 58 No 🗍	na 🗆
4. Coolers are present? (see 19. for cooler specific information)	Yes 🗹 No 🗌	NA LJ
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 ☐ Yes ☑ No ☐	
Sufficient sample volume for indicated test(s)?	Yes ☑ No ☐	
Are samples (except VOA and ONG) properly preserved?  A Was preserved; added to bettles?	Yes No V	NA 🗆
10. Was preservative added to bottles?	Tes [] No E	NA LI
11. VOA vials have zero headspace?	· · · · =	VOA Vials 🗹
12. Were any sample containers received broken?	Yes 🗹 No 🔲	
<ol> <li>Does paperwork match bottle labels?</li> <li>(Note discrepancies on chain of custody)</li> </ol>	Yes 🗹 No 🗌	# of preserved bottles checked for pH:
14. Are matrices correctly identified on Chain of Custody?	Yes 🗹 No 🗌	(<2 or >12 unless noted)
15, is it clear what analyses were requested?	Yes 🗹 No 🗌	Adjusted?
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹 No 🗌	Ohadad har
Special Handling (if applicable)		Checked by:
17. Was client notified of all discrepancies with this order?	Yes ☐ No ☐	na 🗹
Person Notified: Dat	e F	_
By Whom: Via	·	Fax In Person
Regarding:		
Client Instructions:		
18. Additional remarks:		
19. Cooler Information  Cooler No   Temp °C   Condition   Seal Intact   Seal No	Cool Date   Classel D	wl
Cooler No Temp °C Condition Seal Intact Seal No 1 3.2 Good Yes	Seal Date Signed E	<del>"</del>
		<del></del>

C	hain	-of	-Cu	stody Record	Turn-Around	Time:			] _						<b></b> .				<b>4</b> 5- 5		. •
Client: Animas Environ mental Services					□ Standard Project Name	X Rusi	<u>isaye</u>	DAY				AI	ALL	. E.	N V SIS	) L	AE	N P 30	ra Ra	ATV 1OT	
Mailing	Address	(a)	<u> </u>	E Conanche	Lindrith	B#2 B	elease	Assessm	ent	<b>- 49</b> 0	)1 Ha	w. wkins	w.na NE •	· Alb	uque	nem erque	ai.co e, NN	и И 87	109		
FOU	M119-1 #: 505	0n		NM 67401	Project #:					Te	l. 505	5-345-	3975	F	ax :	505-	345-	4107	7		
				imasenvironmentalicom																	
QA/QC Package:  Standard  Level 4 (Full Validation)		Ross Kennemer				<b>= WE</b> (8021)	(Gas o	as/Die				,PO4,S	PCB's								
Accreditation  □ NELAP  □ Other		Sampler: TAM LOSS Ordice Water Ro				+ TPH	015B (C	18.1)	AH)		O <sub>3</sub> ,NO <sub>2</sub>	s / 808		8			S S				
	(Type) _ I		1		Sample Jem	oeranije 3	2000			盟	)g	po d	j	etals	Ž,	ge	<b>₹</b>	3			≿
Date	Time	Ma	atrix	Sample Request ID	Container Type and #	Preservative Type		ALMOS E SERVER	BTEX + ₩	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)	:		Air Bubbles
3/9/12	1016	50	L	SC-2	402 2002 VOA	MEDH		-001	X	,	χŢ										
3912	1052	50	L	5C-3	402 2002 VOAS	MEDH		-002	X		χÌ										
3912	OSS	501		5C-4	402 2002 VOAS			-003	X		X										
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									$\vdash$		$\dashv$	-	-			-			_	+	$\vdash$
											+	-				$\dashv$	$\dashv$	-		-	$\vdash$
										$\dashv$	-		+-					$\dashv$			$\vdash$
											$\dashv$		+					_	$\dashv$	-	+
																$\dashv$	_		_		$\vdash$
Date: 2/9/12	Time: 1550		quishe	mi foss		Walter	Date 3/2/1	Time 2. 1609	1211	narks	77		ωα		PH	1LL	1P	٠ ک	1)4	<u> </u>	<u></u>
Date:				Received by:	W	Date 3/10/	Z 1609 Time 10:40	125 A	100 CG 100 100 100 100 100 100 100 100 100 10	UP 30		REC	B	PT	F	#20 	) ) ) )				