

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 Lindsay Dumas
Address 3401 East 30 th St, Farmington, NM	Telephone No.(505) 599-4089
Facility Name: Ge-Ele-Gu-Lith-E 2	Facility Type: Gas Well

Surface Owner: Navajo Nation	Mineral Owner: Navajo Nation (14-20-603-770)	API No.30-045-11834
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LOCATION OF RELEASE

Unit Letter L	Section 07	Township 26N	Range 08W	Feet from the 1500'	North/South Line FNL	Feet from the 800'	East/West Line FWL	County San Juan
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Latitude 36.499389 Longitude -107.72994

NATURE OF RELEASE

Type of Release Condensate	Volume of Release 53 bbls	Volume Recovered 47 bbls
Source of Release Pit Tank Overflow	Date and Hour of Occurrence 5/25/2015 @ 6:33pm	Date and Hour of Discovery 5/27/2015 @ 2:00pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith (NMOCD) & Bill Freeman (NNEPA)	
By Whom? Lindsay Dumas	Date and Hour 5/28/2015 @ 4:00pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

OIL CONS. DIV DIST. 3

If a Watercourse was Impacted, Describe Fully.*

NOV 09 2015

Describe Cause of Problem and Remedial Action Taken.*

The oil tank drain ball valve began leaking into the pit; eventually overflowing the pit. A spec truck was called to pull the remaining product from tank and around cribbing.

Describe Area Affected and Cleanup Action Taken.*

NMOCD action levels for releases are specified in NMOCD's Guidelines for Leaks, Spills and Releases and the release was assigned a ranking score of 30. Samples were collected and analytical results are below applicable NMOCD action levels. No further work will be performed. The final report is attached for review.

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

Signature: <i>Lindsay Dumas</i>	OIL CONSERVATION DIVISION	
Printed Name: Lindsay Dumas	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Field Environmental Specialist	Approval Date: 12/29/2015	Expiration Date:
E-mail Address: Lindsay.Dumas@conocophillips.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10/19/2015	Phone: (505) 599-4089	

* Attach Additional Sheets If Necessary

NCS1514856330



September 4, 2015

Reference No. 11103308

Ms. Lindsay Dumas
ConocoPhillips
San Juan Business Unit
5525 Hwy 64
Farmington, New Mexico 87401

Dear Lindsay Dumas:

**Re: Release Assessment Report
Ge-Ele-Gu-Lith-E 2
San Juan County, New Mexico**

GHD Services Inc. (GHD) completed release assessment activities at the ConocoPhillips (CoP) Ge-Ele-Gu-Lith-E 2 site on June 4, 2015, July 1, 2015 and August 17, 2015. The Ge-Ele-Gu-Lith-E 2 site (hereafter referred to as the "Site") is located within Unit L, Section 7, Township 26 North, Range 8 West in San Juan County, New Mexico (see Figure 1). The geographical coordinates of the release area are North 36.499394 and West 107.729943.

The Site consists of a CoP gas well (API Number 30-045-11834) and associated equipment. According to CoP, a release of approximately 53 barrels (bbls) of condensate into the cribbing area of the below grade tank (BGT) pit occurred due to a ball valve that had failed. Upon discovery, a vacuum truck was mobilized to the Site and 47 bbls were recovered.

1. Site Information

1.1 Site Ranking

In accordance with the New Mexico Oil Conservation Division (NMOCD) release protocols, Recommended Remedial Action Levels (RRALs) were established per NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993) prior to site work. The release was given a ranking score of 30 based on the following factors:

- **Depth to Groundwater:** Groundwater depth in the vicinity of the release is estimated to be approximately 8 feet below ground surface (bgs) based on area knowledge and records from installation of a cathodic protection well for the Site (20 points).
- **Wellhead Protection Area:** The release location is not within a wellhead protection area (0 points).
- **Distance to Surface Water Body:** A wash is located approximately 650 horizontal feet from the release location (10 points).

GHD Services Inc.

6121 Indian School Road NE Suite 200 Albuquerque New Mexico 87110 USA
T 505 884 0672 F 505 884 4932 W www.ghd.com

With a ranking criteria total score of 30, NMOCD established RRALs are 10 parts per million (ppm) for benzene, 50 ppm for total benzene, toluene, ethylbenzene, and xylene (BTEX), and 100 ppm for total petroleum hydrocarbons (TPH).

1.2 Assessment Activities

GHD performed an initial release assessment on June 4, 2015. The assessment included collection and field screening of soil samples from five soil borings in and around the release area. Soil borings were terminated at depths between approximately five and seven feet bgs in the area of the release. Sample locations are presented on Figure 2.

At the recommendation of the NMOCD, GHD advanced additional soil borings on July 1, 2015. During this assessment, two additional soil borings (borings B-6 and B-7) were installed approximately 15 feet from the release area in the north and west directions (see Figure 2). These borings were installed in order to assess for horizontal migration of soil impacts.

In response to further recommendation from the NMOCD, GHD returned to the Site on August 17, 2015 to oversee the removal of soil from the location of soil boring B-3 and collect confirmation samples from the area of B-3 and the BGT pit bottom. GHD was on Site for the removal of approximately 20 cubic feet of soil from the exterior northwest corner of the BGT pit cribbing (location of soil boring B-3). Soil was removed by a hydro-vacuum truck and a confirmation soil sample was collected at approximately 7.5 feet bgs. In addition a five-point confirmation sample was collected from soil in the bottom of the BGT pit. The five points consisted of the pit's four corners and one middle point.

Results of all assessments activities are discussed below.

2. Soil Sampling

In total from the three site assessment visits, ten soil samples were collected at the Site. All soil samples were field screened for volatile organic compounds (VOCs). The ten soil samples were also analyzed by Hall Environmental Analysis Laboratory (HEAL) of Albuquerque, New Mexico for confirmation.

The soil type encountered during soil sampling at the Site consisted primarily of brown fat clay with the exception of soil in the area of B-2 which was primarily poorly-sorted brown clayey sand.

All borings were plugged with hydrated 3/8-inch bentonite pellets to ground surface. The area of removed soil in the location of soil boring B-3 was backfilled with clean fill by ConocoPhillips.

2.1 Field Sampling for VOCs

Field screening for VOCs was conducted with a photo-ionization detector (PID). Before performing any field screening, the PID was calibrated with 100 ppm isobutylene gas. A representative portion of soil was collected from each sample location and field screened using the heated headspace method. Soil samples for field screening were left to volatilize for approximately 10 minutes, at which point a

vapor reading of the headspace was field screened with the PID. Results of the field screening are presented on Table 1.

2.2 Laboratory Analysis

A soil sample from each of the ten sampling locations was submitted for laboratory analysis. Samples were placed into laboratory supplied containers, properly labeled, placed on ice, and transported to HEAL under chain of custody documentation. All soil samples were analyzed by HEAL for TPH gasoline-range organics (GRO) and diesel-range organics (DRO) by EPA Method 8015 and for BTEX by EPA Method 8021.

2.3 Laboratory Analytical Results

The laboratory analyses from the initial six soil samples collected on June 4, 2015 indicated concentrations of benzene, BTEX, and total TPH below the NMOCD Site-specific RRALs. The only exception was the soil sample collected from B-3, which slightly exceeded the RRAL with an analytical result of 190 mg/kg for total TPH.

Two additional soil borings (B-6 and B-7) were advanced at the site on July 1, 2015 to further assess the horizontal extent of the TPH concentrations observed in soil boring B-3). Soil borings B-6 and B-7 were installed to the north and west of boring B-3. Soil samples collected from these borings at depths of 6 and 6.5 ft bgs were below laboratory reporting limits for BTEX and TPH.

On August 17, 2015 a grab soil sample was collected from the hydro-excavated area on the exterior northwest corner of the BGT pit as well as a five point composite sample collected from the BGT pit bottom. The analytical results from the two soil samples collected on August 17th were below laboratory reporting limits for BTEX and TPH. Analytical results for all site assessment soil samples are presented in Table 1 and on Figure 2. The laboratory analytical reports are included as Attachment A.

3. Site Remediation

Following initial sample collection on June 4, 2015, CoP had a hydrovac crew mobilize to the site. The hydrovac crew removed any free liquids that were present within the cribbing. They also removed the upper 6 to 12 inches of soil from the bottom of the cribbing. The hydrovac crew assisted with the advancement of a boring (B-5) to collect a soil sample to assess hydrocarbon concentrations within the cribbing area. This sample was collected at a depth of seven feet bgs. The analytical results from this sample did not indicate the presence of hydrocarbon constituents above the laboratory reporting limits.

Additional remedial efforts were performed on August 17, 2015. Approximately 20 square feet of soil was removed in the location of soil boring B-3 where laboratory analytical from a sample collected on June 4, 2015 indicated total TPH at a level of 190 mg/kg. The soil in this area was hydro-excavated and a confirmation sample was collected at approximately 7.5 feet bgs. The results of the sample collected from 7.5 feet bgs returned results below laboratory detection limits for both BTEX and TPH constituents.

4. Conclusions and Recommendations

GHD conducted release assessments of soils associated with an overflow of condensate into the cribbing area of the onsite BGT at the Ge-Ele-Gu-Lith-E 2 site.

Laboratory confirmation results for BTEX and TPH indicated concentrations below the NMOCD RRALs, with one exception being the sample collected on June 4, 2015 from B-3 at 5.5 feet bgs, which returned a result of 190 mg/kg for TPH-GRO. Additional soil borings advanced on July 1, 2015 indicate that the observed TPH concentration in B-3 is limited to less than 15 feet in horizontal extent.

GHD returned to the site on August 17, 2015 to oversee the hydro-excavation of soils exceeding the RRAL for TPH in the location of soil boring B-3. Approximately 20 square feet of soil were removed from the area to a depth of approximately 7.5 feet bgs.

Laboratory analytical results from a sample collected at this depth indicated that both BTEX and TPH constituents are not present in concentrations above laboratory detection limits. Therefore, the analytical results are below NMOCD RRALs.

Based on this information, GHD requests that No Further Action status be granted for the Site. If you have any questions about this report or site conditions please do not hesitate to contact myself or Bernard Bockisch at 505-884-0672.

Sincerely,

GHD



Cale Kanack
Project Scientist



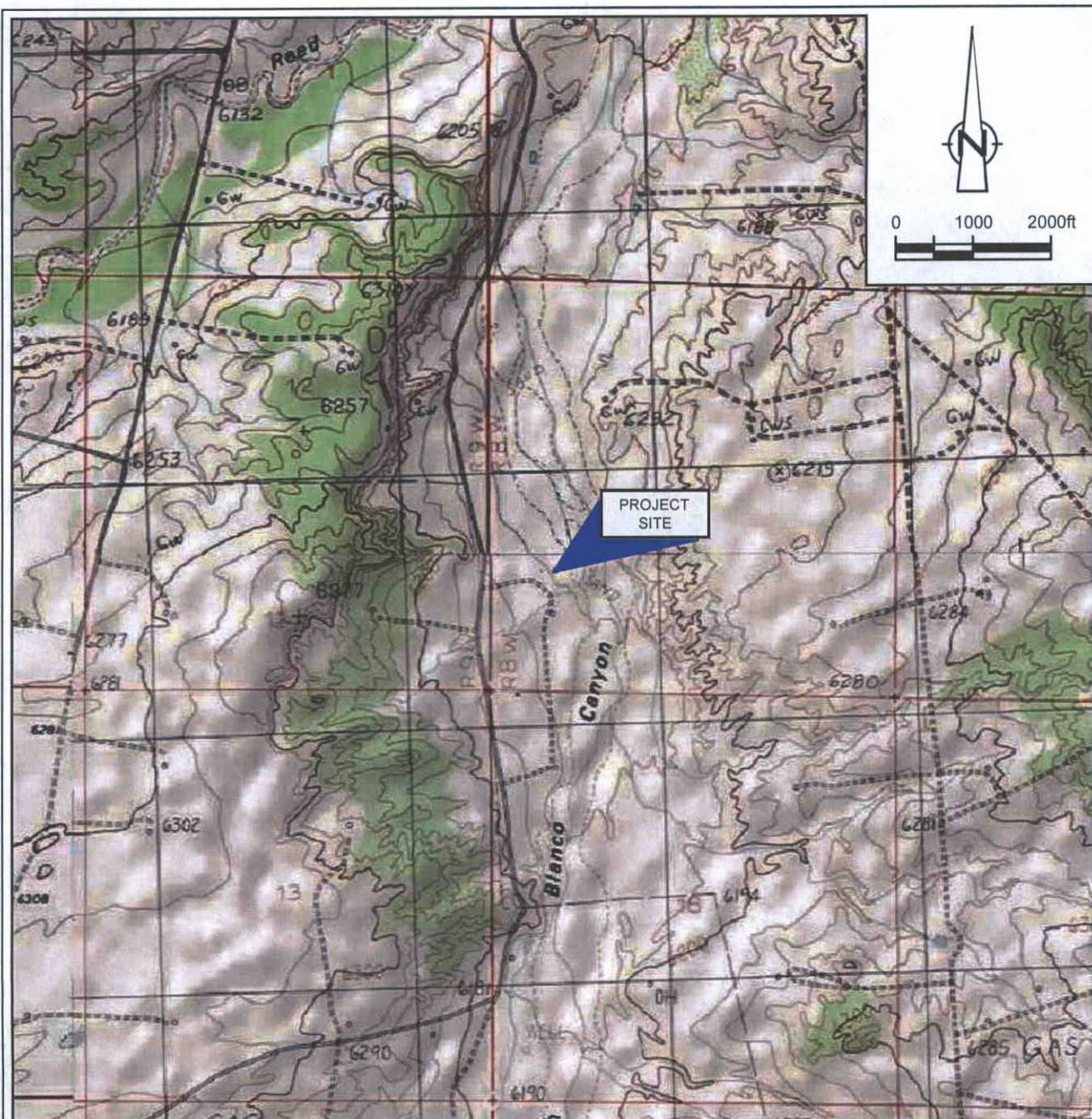
Bernard Bockisch, PMP
Senior Project Manager

CK/mc/2

Encl. (4)

cc:

Figures



SOURCE: USGS 7.5 MINUTE QUAD
"THOMPSON AREA AND FRESNO CANYON, NEW MEXICO"

LAT/LONG: 36.4994° NORTH, 107.7295° WEST
COORDINATE: NAD83 DATUM, U.S. FOOT
STATE PLANE ZONE - NEW MEXICO WEST

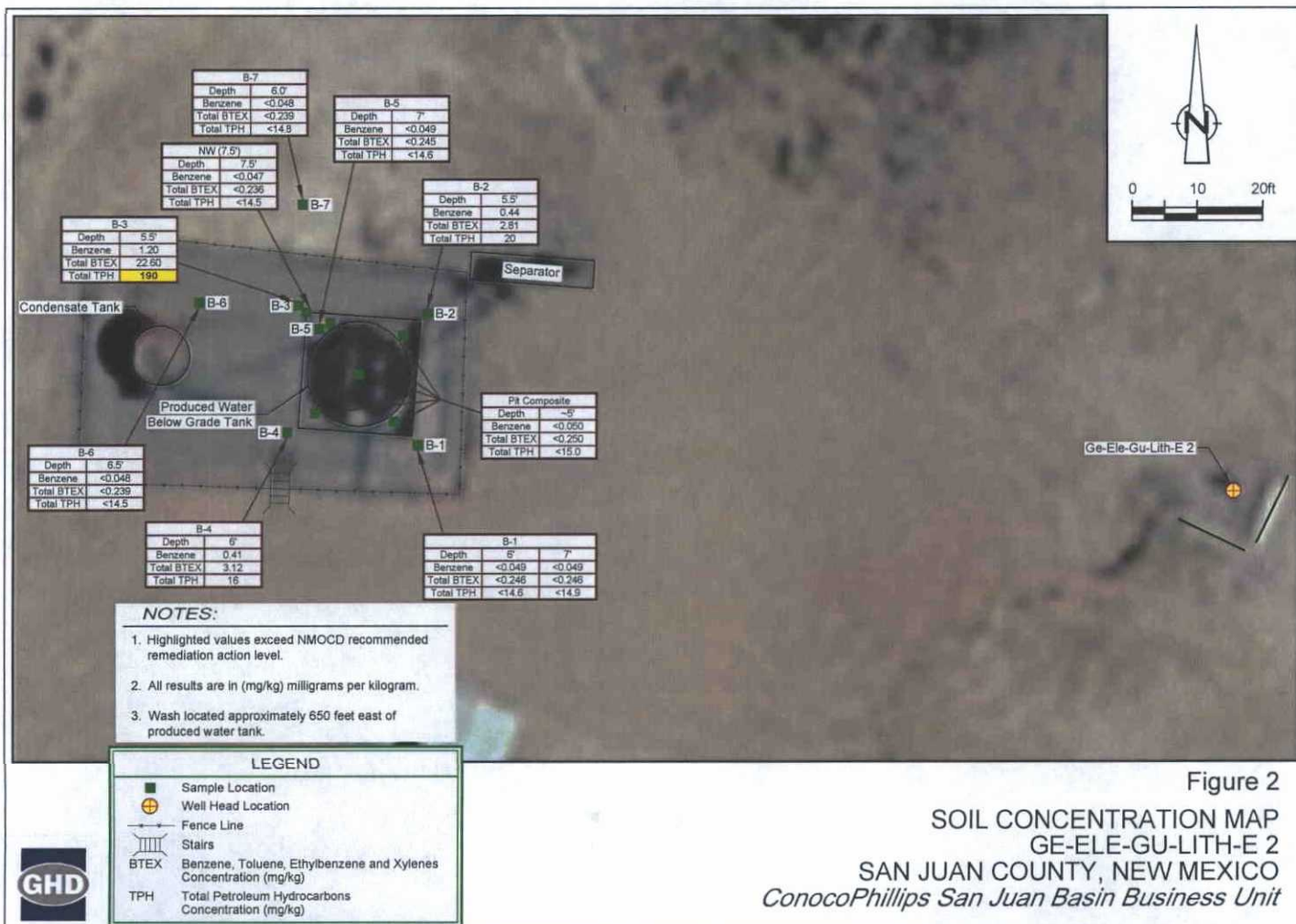
Figure 1

SITE LOCATION MAP
GE-ELE-GU-LITH-E 2

SAN JUAN COUNTY, NEW MEXICO

ConocoPhillips San Juan Basin Business Unit





Tables

Table 1
Laboratory Analytical Results Summary
Ge-Ele-Gu-Lith-E 2 Release Assessment
San Juan County, New Mexico

Sample ID	Date Sampled	Sample Depth (feet bgs)	VOCs via PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	Total TPH (mg/kg)
NMOCD RRALs*			100	10	--	--	--	50	--	--	100
B-1	6/4/2015	6	0.7	< 0.049	< 0.049	< 0.049	< 0.099	< 0.246	< 4.9	< 9.7	< 14.6
	6/4/2015	7	1.5	< 0.049	< 0.049	< 0.049	< 0.099	< 0.246	< 4.9	< 10	< 14.9
B-2	6/4/2015	5.5	82.5	0.44	< 0.050	0.27	2.1	2.81	20	< 9.6	20
B-3	6/4/2015	5.5	595.9	1.2	9.4	1.0	11	22.6	190	< 9.8	190
B-4	6/4/2015	6	502.4	0.41	1.7	0.091	0.92	3.121	16	< 9.9	16
B-5	6/4/2015	7	6.3	< 0.049	< 0.049	< 0.049	< 0.098	< 0.245	< 4.9	< 9.7	< 14.6
B-6	7/1/2015	6.5	3.0	< 0.048	< 0.048	< 0.048	< 0.095	< 0.239	< 4.8	< 9.7	< 14.5
B-7	7/1/2015	6	2.2	< 0.048	< 0.048	< 0.048	< 0.095	< 0.239	< 4.8	< 10	< 14.8
NW (7.5')	8/17/2015	7.5	2.8	< 0.047	< 0.047	< 0.047	< 0.095	< 0.236	< 4.7	< 9.8	< 14.5
Pit Composite	8/17/2015	5	5.2	< 0.050	< 0.050	< 0.050	< 0.10	< 0.250	< 5.0	< 10	< 15.0

Notes:

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

bgs = Below ground surface

NMOCD = New Mexico Oil Conservation Division

RRAL = Recommended Remediation Action Limit

VOC = Volatile organic compound

PID = Photoionization detector

BTEX = Benzene, toluene, ethylbenzene, and xylene

TPH = Total petroleum hydrocarbons

GRO = Gasoline-range organics

DRO = Diesel-range organics

Bold values = Above laboratory reporting limits

Highlighted value = Exceeds NMOCD RRAL

Attachments

Attachment A

Laboratory Analytical Reports



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

June 09, 2015

Bernie Bockish

CRA

6121 Indian School Road, NE #200

Albuquerque, NM 87110

TEL: (505) 884-0672

FAX

RE: Ge-Ele-Gu-Lith-E 2

OrderNo.: 1506275

Dear Bernie Bockish:

Hall Environmental Analysis Laboratory received 6 sample(s) on 6/5/2015 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 qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506275

Date Reported: 6/9/2015

CLIENT: CRA

Client Sample ID: SS-11103308-060415-CM-B-1(6

Project: Ge-Ele-Gu-Lith-E 2

Collection Date: 6/4/2015 10:50:00 AM

Lab ID: 1506275-001

Matrix: SOIL

Received Date: 6/5/2015 11:38:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/9/2015 10:47:11 AM	19613
Surr: DNOP	82.1	57.9-140		%REC	1	6/9/2015 10:47:11 AM	19613
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2015 11:27:02 AM	19586
Surr: BFB	85.6	75.4-113		%REC	1	6/8/2015 11:27:02 AM	19586
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/7/2015 11:10:52 AM	19586
Toluene	ND	0.049		mg/Kg	1	6/7/2015 11:10:52 AM	19586
Ethylbenzene	ND	0.049		mg/Kg	1	6/7/2015 11:10:52 AM	19586
Xylenes, Total	ND	0.099		mg/Kg	1	6/7/2015 11:10:52 AM	19586
Surr: 4-Bromofluorobenzene	87.2	80-120		%REC	1	6/7/2015 11:10:52 AM	19586

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 10
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1506275

Date Reported: 6/9/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA

Client Sample ID: SS-11103308-060415-CM-B-1(7)

Project: Ge-Ele-Gu-Lith-E 2

Collection Date: 6/4/2015 11:15:00 AM

Lab ID: 1506275-002

Matrix: SOIL

Received Date: 6/5/2015 11:38:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/9/2015 11:08:32 AM	19613
Surr: DNOP	65.7	57.9-140		%REC	1	6/9/2015 11:08:32 AM	19613
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2015 11:55:44 AM	19586
Surr: BFB	85.9	75.4-113		%REC	1	6/8/2015 11:55:44 AM	19586
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/7/2015 12:37:04 PM	19586
Toluene	ND	0.049		mg/Kg	1	6/7/2015 12:37:04 PM	19586
Ethylbenzene	ND	0.049		mg/Kg	1	6/7/2015 12:37:04 PM	19586
Xylenes, Total	ND	0.099		mg/Kg	1	6/7/2015 12:37:04 PM	19586
Surr: 4-Bromofluorobenzene	87.2	80-120		%REC	1	6/7/2015 12:37:04 PM	19586

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

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

Analytical Report

Lab Order 1506275

Date Reported: 6/9/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA

Client Sample ID: SS-11103308-060415-CM-B-2(5)

Project: Ge-Ele-Gu-Lith-E 2

Collection Date: 6/4/2015 11:55:00 AM

Lab ID: 1506275-003

Matrix: SOIL

Received Date: 6/5/2015 11:38:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/9/2015 11:29:43 AM	19613
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/9/2015 11:29:43 AM	19613
Surr: DNOP	82.8	57.9-140		%REC	1	6/9/2015 11:29:43 AM	19613
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	20	5.0		mg/Kg	1	6/8/2015 1:22:15 PM	19586
Surr: BFB	105	75.4-113		%REC	1	6/8/2015 1:22:15 PM	19586
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.44	0.050		mg/Kg	1	6/7/2015 2:03:28 PM	19586
Toluene	ND	0.050		mg/Kg	1	6/7/2015 2:03:28 PM	19586
Ethylbenzene	0.27	0.050		mg/Kg	1	6/7/2015 2:03:28 PM	19586
Xylenes, Total	2.1	0.10		mg/Kg	1	6/7/2015 2:03:28 PM	19586
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	6/7/2015 2:03:28 PM	19586

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

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

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1506275

Date Reported: 6/9/2015

CLIENT: CRA**Client Sample ID:** SS-11103308-060415-CM-B-3(5)**Project:** Ge-El-Gu-Lith-E 2**Collection Date:** 6/4/2015 12:55:00 PM**Lab ID:** 1506275-004**Matrix:** SOIL**Received Date:** 6/5/2015 11:38:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/9/2015 11:50:55 AM	19613
Surr: DNOP	86.3	57.9-140		%REC	1	6/9/2015 11:50:55 AM	19613
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	190	50		mg/Kg	10	6/8/2015 1:50:59 PM	19586
Surr: BFB	106	75.4-113		%REC	10	6/8/2015 1:50:59 PM	19586
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	1.2	0.50		mg/Kg	10	6/7/2015 2:32:12 PM	19586
Toluene	9.4	0.50		mg/Kg	10	6/7/2015 2:32:12 PM	19586
Ethylbenzene	1.0	0.50		mg/Kg	10	6/7/2015 2:32:12 PM	19586
Xylenes, Total	11	1.0		mg/Kg	10	6/7/2015 2:32:12 PM	19586
Surr: 4-Bromofluorobenzene	97.8	80-120		%REC	10	6/7/2015 2:32:12 PM	19586

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506275

Date Reported: 6/9/2015

CLIENT: CRA

Client Sample ID: SS-11103308-060415-CM-B-4(6

Project: Ge-Ele-Gu-Lith-E 2

Collection Date: 6/4/2015 1:50:00 PM

Lab ID: 1506275-005

Matrix: SOIL

Received Date: 6/5/2015 11:38:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/9/2015 12:12:02 PM	19613
Surr: DNOP	82.1	57.9-140		%REC	1	6/9/2015 12:12:02 PM	19613
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	16	4.9		mg/Kg	1	6/8/2015 2:19:48 PM	19586
Surr: BFB	96.1	75.4-113		%REC	1	6/8/2015 2:19:48 PM	19586
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.41	0.049		mg/Kg	1	6/7/2015 3:00:54 PM	19586
Toluene	1.7	0.049		mg/Kg	1	6/7/2015 3:00:54 PM	19586
Ethylbenzene	0.091	0.049		mg/Kg	1	6/7/2015 3:00:54 PM	19586
Xylenes, Total	0.92	0.099		mg/Kg	1	6/7/2015 3:00:54 PM	19586
Surr: 4-Bromofluorobenzene	97.0	80-120		%REC	1	6/7/2015 3:00:54 PM	19586

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506275

Date Reported: 6/9/2015

CLIENT: CRA

Client Sample ID: SS-11103308-060415-CM-B-5(7)

Project: Ge-Ele-Gu-Lith-E 2

Collection Date: 6/4/2015 3:55:00 PM

Lab ID: 1506275-006

Matrix: SOIL

Received Date: 6/5/2015 11:38:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/9/2015 12:33:21 PM	19613
Surr: DNOP	88.4	57.9-140		%REC	1	6/9/2015 12:33:21 PM	19613
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2015 2:48:31 PM	19586
Surr: BFB	87.0	75.4-113		%REC	1	6/8/2015 2:48:31 PM	19586
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/7/2015 3:29:37 PM	19586
Toluene	ND	0.049		mg/Kg	1	6/7/2015 3:29:37 PM	19586
Ethylbenzene	ND	0.049		mg/Kg	1	6/7/2015 3:29:37 PM	19586
Xylenes, Total	ND	0.098		mg/Kg	1	6/7/2015 3:29:37 PM	19586
Surr: 4-Bromofluorobenzene	88.8	80-120		%REC	1	6/7/2015 3:29:37 PM	19586

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	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#: 1506275

09-Jun-15

Client: CRA
Project: Ge-Ele-Gu-Lith-E 2

Sample ID	MB-19613	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19613	RunNo:	26673					
Prep Date:	6/8/2015	Analysis Date:	6/9/2015	SeqNo:	795439	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	8.1		10.00		81.4	57.9	140			

Sample ID	LCS-19613	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19613	RunNo:	26673					
Prep Date:	6/8/2015	Analysis Date:	6/9/2015	SeqNo:	795536	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.0	67.8	130			
Surr: DNOP	3.5		5.000		70.7	57.9	140			

Sample ID	1506275-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SS-11103308-06041	Batch ID:	19613	RunNo:	26673					
Prep Date:	6/8/2015	Analysis Date:	6/9/2015	SeqNo:	795683	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.8	48.78	0	85.2	42.3	146			
Surr: DNOP	3.6		4.878		74.4	57.9	140			

Sample ID	1506275-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SS-11103308-06041	Batch ID:	19613	RunNo:	26673					
Prep Date:	6/8/2015	Analysis Date:	6/9/2015	SeqNo:	795684	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	9.7	48.73	0	80.6	42.3	146	5.60	28.9	
Surr: DNOP	3.4		4.873		69.3	57.9	140	0	0	

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506275

09-Jun-15

Client: CRA
Project: Ge-Ele-Gu-Lith-E 2

Sample ID	MB-19586	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	19586	RunNo:	26687					
Prep Date:	6/5/2015	Analysis Date:	6/8/2015	SeqNo:	795081	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	860		1000		86.3	75.4	113			

Sample ID	LCS-19586	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	19586	RunNo:	26687					
Prep Date:	6/5/2015	Analysis Date:	6/8/2015	SeqNo:	795082	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	64	130			
Surr: BFB	950		1000		94.9	75.4	113			

Sample ID	1506275-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SS-11103308-06041	Batch ID:	19586	RunNo:	26687					
Prep Date:	6/5/2015	Analysis Date:	6/8/2015	SeqNo:	795085	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	24.85	0	79.4	47.9	144			
Surr: BFB	930		994.0		93.5	75.4	113			

Sample ID	1506275-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SS-11103308-06041	Batch ID:	19586	RunNo:	26687					
Prep Date:	6/5/2015	Analysis Date:	6/8/2015	SeqNo:	795086	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	5.0	24.93	0	78.2	47.9	144	1.17	29.9	
Surr: BFB	930		997.0		93.5	75.4	113	0	0	

Sample ID	MB-19577	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	19577	RunNo:	26687					
Prep Date:	6/4/2015	Analysis Date:	6/8/2015	SeqNo:	795091	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		86.7	75.4	113			

Sample ID	LCS-19577	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	19577	RunNo:	26687					
Prep Date:	6/4/2015	Analysis Date:	6/8/2015	SeqNo:	795092	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		93.1	75.4	113			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506275

09-Jun-15

Client: CRA
Project: Ge-Ele-Gu-Lith-E 2

Sample ID	MB-19586		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	19586		RunNo:	26664			
Prep Date:	6/5/2015		Analysis Date:	6/7/2015		SeqNo:	794365		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		89.9	80	120			

Sample ID	LCS-19586		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	19586		RunNo:	26664			
Prep Date:	6/5/2015		Analysis Date:	6/7/2015		SeqNo:	794366		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	76.6	128			
Toluene	1.0	0.050	1.000	0	105	75	124			
Ethylbenzene	1.1	0.050	1.000	0	105	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	103	78.8	124			
Surr: 4-Bromofluorobenzene	0.96		1.000		95.8	80	120			

Sample ID	1506275-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SS-11103308-06041		Batch ID:	19586		RunNo:	26664			
Prep Date:	6/5/2015		Analysis Date:	6/7/2015		SeqNo:	794368		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.049	0.9891	0	82.3	69.2	126			
Toluene	0.84	0.049	0.9891	0	84.7	65.6	128			
Ethylbenzene	0.86	0.049	0.9891	0	87.3	65.5	138			
Xylenes, Total	2.5	0.099	2.967	0	85.6	63	139			
Surr: 4-Bromofluorobenzene	0.93		0.9891		93.7	80	120			

Sample ID	1506275-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SS-11103308-06041		Batch ID:	19586		RunNo:	26664			
Prep Date:	6/5/2015		Analysis Date:	6/7/2015		SeqNo:	794369		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.77	0.049	0.9891	0	77.8	69.2	126	5.71	18.5	
Toluene	0.78	0.049	0.9891	0	78.4	65.6	128	7.71	20.6	
Ethylbenzene	0.81	0.049	0.9891	0	82.2	65.5	138	5.96	20.1	
Xylenes, Total	2.4	0.099	2.967	0	80.5	63	139	6.06	21.1	
Surr: 4-Bromofluorobenzene	0.95		0.9891		96.2	80	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 |
| O RSD is greater than RSDlimit | P Sample pH Not In Range |
| 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#: 1506275

09-Jun-15

Client: CRA
Project: Ge-Ele-Gu-Lith-E 2

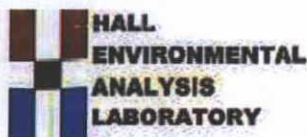
Sample ID	MB-19577	SampType	MBLK	TestCode	EPA Method 8021B: Volatiles					
Client ID	PBS	Batch ID	19577	RunNo	26664					
Prep Date	6/4/2015	Analysis Date	6/7/2015	SeqNo	794388	Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.94		1.000		94.3	80	120			

Sample ID	LCS-19577	SampType	LCS	TestCode	EPA Method 8021B: Volatiles					
Client ID	LCSS	Batch ID	19577	RunNo	26664					
Prep Date	6/4/2015	Analysis Date	6/7/2015	SeqNo	794389	Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.95		1.000		94.6	80	120			

Qualifiers:

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

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



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

Sample Log-In Check List

Client Name: CRA Albuquerque

Work Order Number: 1506275

ReptNo: 1

Received by/date: CS 06/05/15
Logged By: Celina Sessa 6/5/2015 11:38:00 AM Celina Sessa
Completed By: Celina Sessa 6/5/2015 11:42:33 AM Celina Sessa
Reviewed By: AG 06/05/15

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? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.5	Good	Not Present			

Chain-of-Custody Record		Turn-Around Time:
Client: <u>CRA</u>	<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Rush <u>48 Hour</u>
<u>for Conoco Phillips STBU</u>	Project Name:	
Mailing Address: <u>6121 Indian School #200</u>	<u>Gr- Ele Gu Lith-E 2</u>	
<u>Albuquerque, NM 87110</u>	Project #:	
Phone #: <u>505-269-0088</u>	<u>11103308</u>	
email or Fax#: <u>Cmatthews@creworld.com</u>	Project Manager:	
QA/QC Package:	<u>Bernie Bockisch</u>	
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)	
Accreditation	Sampler: <u>C. Matthews & B. Bockisch</u>	
<input type="checkbox"/> NELAP	<input checked="" type="checkbox"/> Yes	
<input type="checkbox"/> Other _____	<input type="checkbox"/> No	
<input type="checkbox"/> EDD (Type)	Sample Temperature: <u>5.5°C</u>	

☐ Standard

☒ Rush 48 Hour

Project Name:

Ge-Ele-Gu-Lith-E 2

Project #:

11103308

Project Manager:

Bernie Bockisch

Sampler: C. Matthews & B. Bockisch

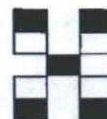
On Ice: ☒ Yes ☐ No

Sample Temperature: 5.5°C

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/15	1138	<i>[Signature]</i>	<i>Celine Sun</i>	06/05/15	1138

Date:	Time:	Relinquished by:	Received by:	Date	Time
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

Remarks:

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



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

July 13, 2015

Bernie Bockish

GHD

6121 Indian School Road, NE #200

Albuquerque, NM 87110

TEL: (505) 884-0672

FAX

RE: GE-ELE-GU-LITH-E 2

OrderNo.: 1507143

Dear Bernie Bockish:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/1/2015 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 qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1507143

Date Reported: 7/13/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD

Client Sample ID: S-11103308-070115-CM-B-6 (6.

Project: GE-ELE-GU-LITH-E 2

Collection Date: 7/1/2015 12:15:00 PM

Lab ID: 1507143-001

Matrix: SOIL

Received Date: 7/1/2015 4:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/7/2015 11:09:09 AM	20110
Surr: DNOP	84.3	57.9-140		%REC	1	7/7/2015 11:09:09 AM	20110
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/8/2015 2:29:46 PM	20111
Surr: BFB	86.1	75.4-113		%REC	1	7/8/2015 2:29:46 PM	20111
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	7/8/2015 2:29:46 PM	20111
Toluene	ND	0.048		mg/Kg	1	7/8/2015 2:29:46 PM	20111
Ethylbenzene	ND	0.048		mg/Kg	1	7/8/2015 2:29:46 PM	20111
Xylenes, Total	ND	0.095		mg/Kg	1	7/8/2015 2:29:46 PM	20111
Surr: 4-Bromofluorobenzene	87.4	80-120		%REC	1	7/8/2015 2:29:46 PM	20111

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

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

Analytical Report

Lab Order 1507143

Date Reported: 7/13/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD

Client Sample ID: S-11103308-070115-CM-B-7 (6)

Project: GE-ELE-GU-LITH-E 2

Collection Date: 7/1/2015 1:00:00 PM

Lab ID: 1507143-002

Matrix: SOIL

Received Date: 7/1/2015 4:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/7/2015 1:55:47 PM	20110
Surr: DNOP	105	57.9-140		%REC	1	7/7/2015 1:55:47 PM	20110
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/8/2015 3:56:03 PM	20111
Surr: BFB	87.9	75.4-113		%REC	1	7/8/2015 3:56:03 PM	20111
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	7/8/2015 3:56:03 PM	20111
Toluene	ND	0.048		mg/Kg	1	7/8/2015 3:56:03 PM	20111
Ethylbenzene	ND	0.048		mg/Kg	1	7/8/2015 3:56:03 PM	20111
Xylenes, Total	ND	0.096		mg/Kg	1	7/8/2015 3:56:03 PM	20111
Surr: 4-Bromofluorobenzene	93.2	80-120		%REC	1	7/8/2015 3:56:03 PM	20111

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	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#: 1507143

13-Jul-15

Client: GHD

Project: GE-ELE-GU-LITH-E 2

Sample ID	MB-20110		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	20110		RunNo:	27312				
Prep Date:	7/6/2015		Analysis Date:	7/7/2015		SeqNo:	818864		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	9.0		10.00		90.5	57.9	140				

Sample ID	LCS-20110		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 20110		RunNo: 27312					
Prep Date:	7/6/2015		Analysis Date: 7/7/2015		SeqNo: 818865		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.8	57.4	139			
Surr: DNOP	5.5		5.000		109	57.9	140			

Sample ID	1507143-001AMS		SampType:	MS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	S-11103308-070115-		Batch ID:	20110		RunNo:	27312				
Prep Date:	7/6/2015		Analysis Date:	7/7/2015		SeqNo:	818867		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	40	9.9	49.31	0	81.7	42.3	146				
Surr: DNOP	4.6		4.931		92.6	57.9	140				

Sample ID	1507143-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	S-11103308-070115-		Batch ID:	20110		RunNo:	27312				
Prep Date:	7/6/2015		Analysis Date:	7/7/2015		SeqNo:	819116		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	42	10	50.40	0	82.9	42.3	146	3.64	28.9		
Surr: DNOP	4.6		5.040		91.6	57.9	140	0	0		

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507143

13-Jul-15

Client: GHD

Project: GE-ELE-GU-LITH-E 2

Sample ID	MB-20111		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	20111		RunNo:	27348				
Prep Date:	7/6/2015		Analysis Date:	7/8/2015		SeqNo:	820504		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	860		1000		85.6	75.4	113				

Sample ID	LCS-20111		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 20111		RunNo: 27348					
Prep Date:	7/6/2015		Analysis Date: 7/8/2015		SeqNo: 820505		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	64	130			
Surr: BFB	950		1000		94.8	75.4	113			

Sample ID	1507143-001AMS		SampType:	MS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	S-11103308-070115-		Batch ID:	20111		RunNo:	27348				
Prep Date:	7/6/2015		Analysis Date:	7/8/2015		SeqNo:	820508		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	24	4.8	23.76	0	99.2	62.5	151				
Surr: BFB	900		950.6		94.7	75.4	113				

Sample ID	1507143-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	S-11103308-070115-		Batch ID:	20111		RunNo:	27348				
Prep Date:	7/6/2015		Analysis Date:	7/8/2015		SeqNo:	820509		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	25	4.8	23.79	0	106	62.5	151	6.42	22.1		
Surr: BFB	910		951.5		95.7	75.4	113	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 |
| O RSD is greater than RSDlimit | P Sample pH Not In Range |
| 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#: 1507143

13-Jul-15

Client: GHD

Project: GE-ELE-GU-LITH-E 2

Sample ID	MB-20111		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	20111		RunNo:	27348			
Prep Date:	7/6/2015		Analysis Date:	7/8/2015		SeqNo:	820524		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		88.9	80	120			

Sample ID	LCS-20111		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	20111		RunNo:	27348			
Prep Date:	7/6/2015		Analysis Date:	7/8/2015		SeqNo:	820525		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	102	76.6	128			
Toluene	0.98	0.050	1.000	0	97.7	75	124			
Ethylbenzene	1.0	0.050	1.000	0	99.5	79.5	126			
Xylenes, Total	2.9	0.10	3.000	0	98.1	78.8	124			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.3	80	120			

Sample ID	1507143-002AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	S-11103308-070115-		Batch ID:	20111		RunNo:	27348			
Prep Date:	7/6/2015		Analysis Date:	7/8/2015		SeqNo:	820529		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.048	0.9606	0	99.9	69.6	136			
Toluene	0.96	0.048	0.9606	0.009817	99.2	76.2	134			
Ethylbenzene	0.98	0.048	0.9606	0	102	75.8	137			
Xylenes, Total	2.9	0.096	2.882	0.02010	100	78.9	133			
Surr: 4-Bromofluorobenzene	0.94		0.9606		98.0	80	120			

Sample ID	1507143-002AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	S-11103308-070115-		Batch ID:	20111		RunNo:	27348			
Prep Date:	7/6/2015		Analysis Date:	7/8/2015		SeqNo:	820530		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.048	0.9606	0	102	69.6	136	2.54	20	
Toluene	0.97	0.048	0.9606	0.009817	100	76.2	134	0.793	20	
Ethylbenzene	1.0	0.048	0.9606	0	105	75.8	137	2.64	20	
Xylenes, Total	3.0	0.096	2.882	0.02010	103	78.9	133	2.72	20	
Surr: 4-Bromofluorobenzene	0.96		0.9606		99.8	80	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 |
| O RSD is greater than RSDlimit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |



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: CRA Albuquerque

Work Order Number: 1507143

RcptNo: 1

Received by/date: DA 07/10/15

Logged By: Lindsay Mangin 7/1/2015 4:07:00 PM Judy Hago

Completed By: Lindsay Mangin 7/2/2015 2:56:56 PM Judy Hago

Reviewed By: mg 07/06/15

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? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	Good	Not Present			

Client: GHD (FORMERLY CRA)

Mailing Address: 6121 INDIAN SCHOOL NE.

STE 200, KBQ, NM 87110

Phone #: 505-884-0672

email or Fax#: **BERNARD.BOCKISCH@GHD.COM**

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

GE-ELE-60-LITH-E 2

Project #:

11103308



Project Manager:

BERNIE BOCKISCH

Sampler: C. KANACK, C. MATHEWS

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.7

Date: 7-1-15	Time: 1607	Relinquished by: 	Received by: 	Date 07/01/15	Time 1607	Remarks: BTEX + TPH - GRO/DRO ONLY
Date:	Time:	Relinquished by:	Received by:	Date	Time	



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

	X	BTEX + MTBE + TMB's (8021)
		BTEX + MTBE + TPH (Gas only)
	X	TPH 8015B (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)
		Air Bubbles (Y or N)

Remarks: BTEX + TPH - GRO/DRO ONLY



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

August 20, 2015

Angie Bown
GHD Services, Inc.
6121 Indian School Rd. NE
Suite 200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX

RE: Ge-Ele-Gu-Lith-E2

OrderNo.: 1508820

Dear Angie Bown:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/17/2015 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 qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1508820

Date Reported: 8/20/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Services, Inc.

Client Sample ID: SS-11103308-081715-CM-NW(

Project: Ge-Ele-Gu-Lith-E2

Collection Date: 8/17/2015 10:30:00 AM

Lab ID: 1508820-001

Matrix: SOIL

Received Date: 8/17/2015 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/18/2015 10:43:12 AM	20853
Surr: DNOP	87.2	57.9-140		%REC	1	8/18/2015 10:43:12 AM	20853
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/19/2015 5:38:50 PM	20847
Surr: BFB	82.2	75.4-113		%REC	1	8/19/2015 5:38:50 PM	20847
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	8/19/2015 5:38:50 PM	20847
Toluene	ND	0.047		mg/Kg	1	8/19/2015 5:38:50 PM	20847
Ethylbenzene	ND	0.047		mg/Kg	1	8/19/2015 5:38:50 PM	20847
Xylenes, Total	ND	0.095		mg/Kg	1	8/19/2015 5:38:50 PM	20847
Surr: 4-Bromofluorobenzene	97.1	80-120		%REC	1	8/19/2015 5:38:50 PM	20847

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
	D Sample Diluted Due to Matrix	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 Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508820

Date Reported: 8/20/2015

CLIENT: GHD Services, Inc.

Client Sample ID: SS-11103308-081715-CM-Pit C

Project: Ge-Ele-Gu-Lith-E2

Collection Date: 8/17/2015 12:10:00 PM

Lab ID: 1508820-002

Matrix: SOIL

Received Date: 8/17/2015 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2015 12:04:10 PM	20853
Surr: DNOP	103	57.9-140		%REC	1	8/18/2015 12:04:10 PM	20853
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2015 6:03:41 PM	20847
Surr: BFB	82.9	75.4-113		%REC	1	8/19/2015 6:03:41 PM	20847
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	8/19/2015 6:03:41 PM	20847
Toluene	ND	0.050		mg/Kg	1	8/19/2015 6:03:41 PM	20847
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2015 6:03:41 PM	20847
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2015 6:03:41 PM	20847
Surr: 4-Bromofluorobenzene	95.8	80-120		%REC	1	8/19/2015 6:03:41 PM	20847

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
	D	Sample Diluted Due to Matrix	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 Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508820

20-Aug-15

Client: GHD Services, Inc.

Project: Ge-Ele-Gu-Lith-E2

Sample ID	MB-20853	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	20853	RunNo:	28280					
Prep Date:	8/18/2015	Analysis Date:	8/18/2015	SeqNo:	853972	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		97.4	57.9	140			

Sample ID	LCS-20853	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	20853	RunNo:	28280					
Prep Date:	8/18/2015	Analysis Date:	8/18/2015	SeqNo:	853973	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	95.1	57.4	139			
Surr: DNOP	5.0		5.000		99.2	57.9	140			

Sample ID	1508820-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SS-11103308-08171	Batch ID:	20853	RunNo:	28280					
Prep Date:	8/18/2015	Analysis Date:	8/18/2015	SeqNo:	853993	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.9	49.46	0	98.0	42.3	146			
Surr: DNOP	5.0		4.946		101	57.9	140			

Sample ID	1508820-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SS-11103308-08171	Batch ID:	20853	RunNo:	28280					
Prep Date:	8/18/2015	Analysis Date:	8/18/2015	SeqNo:	853994	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.7	48.73	0	91.8	42.3	146	8.03	28.9	
Surr: DNOP	4.8		4.873		99.4	57.9	140	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508820

20-Aug-15

Client: GHD Services, Inc.

Project: Ge-Ele-Gu-Lith-E2

Sample ID	MB-20847		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	PBS		Batch ID:	20847		RunNo:	28291			
Prep Date:	8/17/2015		Analysis Date:	8/18/2015		SeqNo:	854187		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	800		1000		80.3	75.4	113			

Sample ID	LCS-20847		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	LCSS		Batch ID:	20847		RunNo:	28291			
Prep Date:	8/17/2015		Analysis Date:	8/18/2015		SeqNo:	854188		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	105	79.6	122			
Surr: BFB	840		1000		83.9	75.4	113			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508820

20-Aug-15

Client: GHD Services, Inc.

Project: Ge-Ele-Gu-Lith-E2

Sample ID	MB-20847		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	20847		RunNo:	28291			
Prep Date:	8/17/2015		Analysis Date:	8/18/2015		SeqNo:	854208		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.0	80	120			

Sample ID	LCS-20847		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	20847		RunNo:	28291			
Prep Date:	8/17/2015		Analysis Date:	8/18/2015		SeqNo:	854209		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	96.0	76.6	128			
Toluene	0.96	0.050	1.000	0	96.3	75	124			
Ethylbenzene	0.99	0.050	1.000	0	99.3	79.5	126			
Xylenes, Total	3.0	0.10	3.000	0	98.6	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.6	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **CONESTOGA-ROVERS**

Work Order Number: **1508820**

RcptNo: **1**

Received by/date:	<i>AG</i>	08/17/15
Logged By:	Ashley Gallegos	8/17/2015 3:40:00 PM <i>AG</i>
Completed By:	Ashley Gallegos	8/17/2015 4:27:10 PM <i>AG</i>
Reviewed By:	<i>mg</i>	08/17/15

Chain of Custody

- Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Client

Log In

- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
- Was preservative added to bottles? Yes ☐ No ☒ NA ☐
- VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- 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)

- 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: _____

- Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Not Present			



GHD Services, Inc.
CONESTOGA-ROVERS
 & ASSOCIATES

CHAIN OF CUSTODY RECORD

Address: 6121 Indian School Rd NE #200

Phone: 505-884-0672 Fax: 505-

email: Bernard.Bockisch@ghd.com

COC NO.: **32787**

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/Phase/Task Code:

11103308

Laboratory Name:

Hall Environmental

Lab Location:

ABQ, NM

SSOW ID:

Project Name:

Ge-Ele-Gu-Lith-E2

Lab Contact:

Andy Freeman

Lab Quote No:

Cooler No:

Project Location:

San Juan, NM

SAMPLE TYPE

CONTAINER QUANTITY & PRESERVATION

ANALYSIS REQUESTED

(See Back of COC for Definitions)

Carrier:

Chemistry Contact:

Angela Bown

Sampler(s):

Christine Matthews

Airbill No:

Date Shipped:

Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd/yyyy)	TIME (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Sol VOC)	EnCores 3x5-g, 1x2-g	Other:	Total Containers/Sample	RESERVED REQUEST	COMMENTS/ SPECIAL INSTRUCTIONS
1	SS-11103308-081715-01-NW/75'	8/17/15	1030	50	G	1								1	XX	15D882D -001
2	SS-11103308-081715-01-PH Composite	8/17/15	1210	50	C	1								1	XX	-002
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

TAT Required in business days (use separate COCs for different TATs):

☐ 1 Day ☐ 2 Days ☒ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:

Total Number of Containers: 2

Notes/ Special Requirements:

All Samples in Cooler must be on COC

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
<u>[Signature]</u>	<u>GHD</u>	<u>8/17/15</u>	<u>1540</u>	<u>AMGAUGOS 2.3</u>	<u>HEAL</u>	<u>08/17/15</u>	<u>154</u>

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT -- ALL FIELDS MUST BE COMPLETED ACCURATELY