District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NCS1729355513
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Hilcorp Energy Company	OGRID 372171
Contact Name Jennifer Deal	Contact Telephone 505-801-6517
Contact email jdeal@hilcorp.com	Incident # NCS1729355513
Contact mailing address 382 Road 3100, Aztec NM 87410	

Location of Release Source

Latitude 36.8324852 Longitude -108.168396

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Bell Federal Gas Com B 1	Site Type Gas Well
Date Release Discovered September 15, 2017 (Historic)	API# *30-045-09772*

Unit Letter	Section	Township	Range	County
A	11	30N	13W	San Juan

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls) 2
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls) 58 (Historic)	Volume Recovered (bbls) 0
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
XTO discovered a bullet hole in the side of a condensate tank. The vandalized tank resulted in approx. 58 bbls of condensate draining onto the ground and infiltrating into the subsurface. The release was contained within the bermed area and no liquids were recovered.

NMOCD
NOV 19 2018
DISTRICT III

17

Smith, Cory, EMNRD

From: Smith, Cory, EMNRD
Sent: Monday, December 3, 2018 3:22 PM
To: 'Jennifer Deal'
Cc: Fields, Vanessa, EMNRD
Subject: RE: [EXTERNAL] RE: Bell Federal Gas Com B 1 - 3rd Qtr SVE Report Incident# nCS1729355513

Jennifer,

OCD has received the 3rd Qtr. SVE Report for the Bell Federal Gas Com B #1 after further review it has been approved with the following conditions of approval

- Continue to operate and report SVE remediation as previously directed.
- The impacted zone must be fully delineated as requested from the previous Operator first on 10/20/2017 and again on 2/23/18. HEC need to complete a full horizontal/vertical delineation as describe in 19.15.17.11 NMAC

HEC can include the full delineation in the 1st Qtr 2019 report. If you have any additional questions please give me a call.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Jennifer Deal <jdeal@hilcorp.com>
Sent: Thursday, November 15, 2018 2:13 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Subject: [EXT] RE: [EXTERNAL] RE: Bell Federal Gas Com B 1 - 3rd Qtr SVE Report

Here is the report with the C-141 Remediation plan section attached. I will get the paper copy in the mail today. Thank you,

Jennifer Deal
Environmental Specialist
Hilcorp Energy – L48 West
jdeal@hilcorp.com
Office: (505) 324-5128
Cell: 505-801-6517

From: Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us]
Sent: Thursday, November 15, 2018 7:13 AM
To: Jennifer Deal <jdeal@hilcorp.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Subject: [EXTERNAL] RE: Bell Federal Gas Com B 1 - 3rd Qtr SVE Report

Jennifer,

Please make sure you submit it as a hard copy and behind a C-141 utilizing the Remediation plan page of the C-141.

Thanks,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Jennifer Deal <jdeal@hilcorp.com>
Sent: Wednesday, November 14, 2018 4:15 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Subject: [EXT] Bell Federal Gas Com B 1 - 3rd Qtr SVE Report

Good afternoon,

Please find attached the 3rd quarter SVE report for the Bell Federal Gas Com B 1. Let me know if you have any questions.

Thanks,

Jennifer Deal
Environmental Specialist
Hilcorp Energy – L48 West
jdeal@hilcorp.com
382 Road 3100
Aztec, NM 87410
Office: (505) 324-5128
Cell: (505) 801-6517

State of New Mexico
Oil Conservation Division

Incident ID	NCS1729355513
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ~~*Each of the following items must be included in the plan.*~~

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

3rd Qtr Report - 2018

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Jennifer Deal Title: Environmental Specialist

Signature: Jennifer Deal Date: 11/15/2018

email: jdeal@hilcorp.com Telephone: 505-324-5128

OCD Only

Received by: OCD Date: 11/19/18

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Date: 12/3/18

LT Environmental, Inc.
848 East Second Avenue
Durango, Colorado 81301
970.385.1096

September 21, 2018

Mr. Cory Smith
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

RE: Quarterly Solar SVE System Update
Hilcorp Energy Company
Bell Federal GC B #1
API # 30-045-09772
San Juan County, New Mexico

Dear Mr. Smith:

LT Environmental, Inc. (LTE), on behalf of Hilcorp Energy Company (Hilcorp), presents the following quarterly summary report discussing the solar soil vapor extraction (SVE) system performance at the Bell Federal GC B #1 natural gas production well (Site).

The solar SVE system was installed on January 16, 2018, to remediate subsurface soil impacts following an act of vandalism, resulting in the release of approximately 58 barrels (bbl) of condensate. SVE installation, soil sampling, and delineation activities are summarized in earlier reports submitted to the New Mexico Oil Conservation Division (NMOCD) on February 28, 2018, and May 3, 2018.

The solar SVE system consists of a 1/3 horsepower blower capable of producing 22 cubic feet per minute (cfm) at 29 inches of water column vacuum. The blower is powered by four 12-volt deep cycle batteries that are charged throughout the day via three solar panels with a nominal maximum power output of 915 watts. The blower runs off a timer that is scheduled to maximize runtime that coincides with the seasonally available solar recharge, typically 10 hours in the winter and 12 hours in the summer for Farmington, New Mexico. After startup on January 16, 2018, the solar SVE system was set to run for 8 hours per day and was gradually increased to 10 and 12 hours or runtime throughout the spring and summer. Between startup and the last site visit on September 7, 2018, there have been 228 days of operation, with an estimated 2,806 total hours of available nominal daylight in which the solar SVE system should be in operation. Of the available runtime of 2,806 hours since installation, the system has an actual runtime of 2,844 hours, for an overall 101.3 percent (%) runtime efficiency. Below is a table of SVE runtime in comparison with nominal available daylight hours, per month, according to the National Oceanic and Atmospheric Administration's National Weather Service.

Month	January 16-31	February	March	April	May	June	July	August	Sept 1-7
Days	9	28	31	30	31	30	31	31	7
Avg. Nominal Daylight Hrs	9	10	11	12	13	14	14	13	12
Available Runtime Hrs.	81	280	341	360	403	420	434	403	84

Total Available Daylight Runtime Hours 2,806
Actual Runtime Hours 2,844
% Runtime 101.3%

An initial air sample was collected on January 24, 2018, from the solar SVE system discharge exhaust stack. A subsequent air sample was collected on August 17, 2018 (Table 1). No air sample was collected during the second quarter of 2018, due to a change in operator from XTO Energy to Hilcorp. Samples were collected in Tedlar® bags and submitted to Hall Environmental Analysis Laboratory of Albuquerque, New Mexico for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency (US EPA) Method 8021, and total volatile petroleum hydrocarbons (TVPH) via US EPA Method 8015. Overall, there has been a 43% reduction in benzene emissions (280 µg/L to 160 µg/L), and a 40% reduction in TVPH emissions (30,000 µg/L to 18,000 µg/L), as seen in Table 1. Since installation, there has been a reduction in benzene and TVPH emissions, which is indicative of the effectiveness and success so far of the solar SVE system.

Since the solar SVE system installation, a total of approximately 15.1 gallons of liquid phase separated hydrocarbons (PSH) have been recovered from the SVE wells and liquid-vapor separator tank. Based on the air sample data collected to date, the estimated mass air emissions were calculated using an average of the air samples (Table 2). The impacted mass source removal via the solar SVE system to date is an estimated 10.6 pounds (lbs.) of benzene and 1,190 lbs. of TVPH. Including the PSH and vapor phase hydrocarbons, an estimated total of 213.4 gallons or 5.1 bbl of condensate has been recovered to date.

During the upcoming 4th quarter of operations, Site visits will resume on a bi-weekly basis by Hilcorp and LTE personnel to ensure 90% runtime efficiency continues and that any maintenances issues are addressed. The average nominal daylight hours will continue to decrease throughout the fall and into winter, so the blower operation hours will be adjusted accordingly. An annual air sample will be collected in the 4th quarter and analyzed for the full volatile organic compound (VOC) list by US EPA Method 8260, per the Conditions of Approval stipulated by the NMOCD. An updated quarterly report with sample results, runtime, and mass source removal will be submitted under separate cover.

LTE appreciates the opportunity to provide this report to the NMOCD. If you have any questions or comments regarding this work plan, do not hesitate to contact me at (970) 385-1096 or via email at dburns@ltenv.com or Jennifer Deal at (505) 324-5128 or at jdeal@hilcorp.com.

Sincerely,

LT ENVIRONMENTAL, INC.

Danny Burns
Project Geologist

Ashley Ager, M.S., P.G.
Senior Geologist

cc: Jennifer Deal, Hilcorp Energy Company

TABLE 1
AIR SAMPLE ANALYTICAL RESULTS

BELL FEDERAL GC B#1
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Sample ID	Sample Date	Vapor (ppm)	Benzene (µg/L)	Toluene (µ/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TVPH (µg/L)
Bell Fed GC B#1 SVE	1/24/2018	1,435	280	200	*5.0*	38	30,000
Stack Exhaust 01	8/17/2018	1,873	160	380	21.0	320	18,000

NOTES:

µg/L - micrograms per liter

ppm - parts per million

TVPH- total volatile petroleum hydrocarbons

Italics denote that the laboratory method detection limit was used for calculations for a non-detected result

TABLE 2
SOIL VAPOR EXTRACTION SYSTEM RECOVERY & EMISSIONS SUMMARY

BELL FEDERAL GC B#1
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Sample Information and Lab Analysis

Date	Total Flow (cf)	Delta Flow (cf)	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TVPH (µg/L)
1/24/2018	164,400	164,400	1,435	280	200	*5.0*	38	30,000
8/17/2018	2,059,584	1,895,184	1,873	160	380	21.0	320	18,000
		Average	1,654	220	290	13	179	24,000

Vapor Extraction Calculations

Date	Flow Rate (cfm)	Benzene (lb/hr)	Toluene (lb/hr)	Ethyl-benzene (lb/hr)	Total Xylenes (lb/hr)	TVPH (lb/hr)
1/24/2018	40	0.0419	0.0299	0.0007	0.0057	4.4921
8/17/2018	12	0.0072	0.0171	0.0009	0.0144	0.8086
Average	26	0.0246	0.0235	0.0008	0.0100	2.6503

Pounds Extracted Over Total Operating Time

Date	Total Operational Hours	Delta Hours	Benzene (lbs)	Toluene (lbs)	Ethyl-benzene (lbs)	Total Xylenes (lbs)	TVPH (lbs)	TVPH (tons)
1/24/2018	68.5	68.5	2.9	2.1	0.1	0.4	307.7	0.2
8/17/2018	2,632.2	2,563.7	18.4	43.8	2.4	36.9	2,072.9	1.0
	Avg. Mass Extracted To Date		10.6	22.9	1.2	18.6	1,190.3	0.6
	Total Extracted to Date (Linear Decay)		21.3	45.8	2.5	37.2	2,380.6	1.2

NOTES

cf - cubic feet

cfm - cubic feet per minute

lbs - pounds

lb/hr - pounds per hour

µg/L - microgram per liter

PID - photoionization detector

ppm - parts per million

TVPH - total volatile petroleum hydrocarbons

Italics denote that the laboratory method detection limit was used for calculations for a non-detected result

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

February 05, 2018

Danny Burns

XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: Bell Federal GC B 1 OrderNo.: 1801B92

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/25/2018 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 **1801B92**
Date Reported: **2/5/2018**

CLIENT: XTO Energy
Project: Bell Federal GC B 1
Lab ID: 1801B92-001 **Matrix:** AIR

Client Sample ID: Bell Fed GC B #1-SVE
Collection Date: 1/24/2018 3:45:00 PM
Received Date: 1/25/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	30000	250		µg/L	50	2/1/2018 11:17:00 AM	R48855
Surr: BFB	111	80.2-145		%Rec	50	2/1/2018 11:17:00 AM	R48855
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	280	5.0		µg/L	50	2/1/2018 11:17:00 AM	B48855
Toluene	200	5.0		µg/L	50	2/1/2018 11:17:00 AM	B48855
Ethylbenzene	ND	5.0		µg/L	50	2/1/2018 11:17:00 AM	B48855
Xylenes, Total	38	10		µg/L	50	2/1/2018 11:17:00 AM	B48855
Surr: 4-Bromofluorobenzene	109	81.9-144		%Rec	50	2/1/2018 11:17:00 AM	B48855

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
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: XTO Energy | Work Order Number: 1801B92 | RcptNo: 1

Received By: **Anne Thorne** 1/25/2018 7:00:00 AM Anne Thorne

Completed By: **Anne Thorne** 1/25/2018 10:01:03 AM Anne Thorne

Reviewed By: DC 1-25-18

Chain of Custody

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

Log In

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

15. 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:			

16. Additional remarks:

17. **Cooler Information**

Chain-of-Custody Record

Client: XTO Energy
Logan Hixon
Mailing Address: 115 CR 382
Aztec, NM
Phone #: 505-320-6133
email or Fax#: logan_hixon@xtoenergy.com
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: Bell Federal GC B #1
Project #:
Project Manager: LTE: Danny Burns
Sampler: Josh Adams
On Ice: ☒ Yes ☐ No
Sample Temperature: ~~1.0~~ Ac 01/25/18

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1801892	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
1-24-18	1545	Air	Bell Fed. GC B #1-SVE	tedlar	none/cool	001		X	X													

Date: 1-24-18 Time: 1625 Relinquished by: [signature] Received by: [signature] Date: 1/24/18 Time: 1625
Date: 1/24/18 Time: 1904 Relinquished by: [signature] Received by: [signature] Date: 01/25/18 Time: 0700

Remarks: cc: dburns@ltenv.com
logan_hixon@xtoenergy.com
dager@ltenv.com

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

August 22, 2018

Danny Burns
Hilcorp Energy
PO Box 61529
Houston, TX 77208-1529
TEL: (337) 276-7676
FAX

RE: Bell Federal GCB 1 OrderNo.: 1808B67

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/18/2018 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 #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1808B67**
Date Reported: **8/22/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Hilcorp Energy
Project: Bell Federal GCB 1
Lab ID: 1808B67-001 **Matrix:** AIR

Client Sample ID: Stack Exhaust 01
Collection Date: 8/17/2018 12:00:00 PM
Received Date: 8/18/2018 11:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	18000	250		µg/L	50	8/21/2018 11:11:49 AM	G53602
Surr: BFB	210	80.2-145	S	%Rec	50	8/21/2018 11:11:49 AM	G53602
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	160	5.0		µg/L	50	8/21/2018 11:11:49 AM	B53602
Toluene	380	5.0		µg/L	50	8/21/2018 11:11:49 AM	B53602
Ethylbenzene	21	5.0		µg/L	50	8/21/2018 11:11:49 AM	B53602
Xylenes, Total	320	10		µg/L	50	8/21/2018 11:11:49 AM	B53602
Surr: 4-Bromofluorobenzene	102	81.5-137		%Rec	50	8/21/2018 11:11:49 AM	B53602

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
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 1808B67 RcptNo: 1

Received By: Anne Thorne 8/18/2018 11:15:00 AM Anne Thorne

Completed By: Anne Thorne 8/20/2018 9:53:29 AM Anne Thorne

Reviewed By: JAB 08/20/18

Labeled by: AT 08/20/18

Chain of Custody

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

Log In

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

15. 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: _____

16. Additional remarks:

17. Cooler Information

Chain-of-Custody Record

Client: Hilcorp Energy Co.

Mailing Address:

Phone #:

email or Fax#: jdeal@hilcorp.com

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

Accreditation
☐ NELAP ☐ Other

☒ EDD (Type) pdf

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Bell Federal GCB #1

Project #:

Project Manager: D. Burns

Sampler: D. Burns

On Ice: ☐ Yes ☐ No

Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1808B47	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
8-17-18	1200	Air	Stack Exhaust 01	2-Tedlar	None	001	X		X													

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
8-17-18	1430			8/17/18	1430	cc: dburns@Henv.com ccardoza@hilcorp.com jdeal@hilcorp.com
8/17/18	1839			08/18/18	0715	

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.