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ENSOLUM

April 11, 2022

New Mexico Oil Conservation Division
New Mexico Energy, Minerals, and Natural Resources Department
1000 Rio Brazos Road
Aztec, New Mexico 87410

Re: First Quarter 2022 – Solar SVE System Update
Bell Federal GC B#1
San Juan County, New Mexico
Hilcorp Energy Company
NMOCD Incident Number: NCS1729355513
Ensolum Project No. 07A1988001

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *First Quarter 2022 – Solar SVE System Update* report summarizing the solar soil vapor extraction (SVE) system performance at the Bell Federal GC B#1 natural gas production well (Site), located in Section 11, Township 30 North, Range 13 West in San Juan County, New Mexico (Figure 1). The SVE system has operated since January 16, 2018 to remediate subsurface soil impacts originating from a release of approximately 58 barrels (bbls) of natural gas condensate caused by an act of vandalism. This report summarizes Site activities performed in January, February, and March of 2022 to the New Mexico Oil Conservation Division (NMOCD).

SVE SYSTEM SPECIFICATIONS

Currently, a solar SVE system is operating at the Site, which consists of a 1/3-horsepower blower capable of producing 22 cubic feet per minute (cfm) flow at a vacuum of 29 inches of water column (IWC); three solar panels, with a total of 915 watts of maximum power output; and charged by four 12-volt deep cycle batteries that subsequently power the SVE blower. The system operation is controlled by a timer adjusted throughout the year based on available nominal daylight hours (generally 9 hours per day during the winter and 14 hours per day during the summer). Four SVE wells (SVE01 through SVE04) are currently present at the Site as depicted on Figure 2.

FIRST QUARTER 2022 ACTIVITIES

During the first quarter of 2022, WSP USA Inc. (WSP, third-party environmental consultant for the Site) and Hilcorp personnel performed bi-weekly operation and maintenance (O&M) visits to verify the system was operating as designed and to perform any required maintenance. During Site visits, the system timer and the angle of the solar panels were adjusted to account for seasonal variations and maximize system efficiency. Field notes taken during O&M visits are presented in Appendix A.

During the first quarter of 2022, operating SVE wells were rotated so vacuum on the vadose zone within two wells at a time to induce air flow in the impacted zones at the Site. Between January 11 and March 16, 2022, approximately 656 total hours of available nominal daylight were available for the solar SVE system to operate. Available nominal daylight hours are based on estimates by the National Oceanic and Atmospheric Administration's (NOAA's) National Weather Service (NWS) for the Site location. Between these dates, the actual runtime for the system was 664.9 hours, equating to a first quarter 2022 runtime efficiency of 101.4 percent (%). For solar SVE systems, runtime efficiency can be greater than 100% when the solar panels charge the system's batteries during daylight hours and continue to run the SVE blower for a longer amount of time than the nominal daylight hours available at the Site due to excess energy stored in the batteries. Table 1 presents the SVE system runtime compared to nominal available daylight hours per month. Appendix B presents photographs of the runtime meter taken during the first and last field visits of the quarter.

A first quarter emissions sample was collected on March 16, 2022 from a sample port located between the SVE piping manifold and the SVE blower using a high vacuum air sampler. Prior to collection, the emission sample was field screened with a photoionization detector (PID) for organic vapor monitoring (OVM). The emission sample was collected directly into a 1-Liter Tedlar® bag and submitted to Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico for analysis of total volatile petroleum hydrocarbons (TVPH – also known as total petroleum hydrocarbons – gasoline range organics (TPH-GRO)) following United States Environmental Protection Agency (EPA) Method 8015D, volatile organic compounds (VOCs) following EPA Method 8260B, and fixed gas analysis of oxygen and carbon dioxide following Gas Processors Association (GPA) Method 2261. Table 2 presents a summary of analytical data collected during this sampling event and historical sampling events, with the full laboratory analytical report included in Appendix C.

Air sample data and measured stack flow rates are used to estimate total mass recovered and total emissions generated by the SVE system (Table 3). Based on these estimates, 36,564 pounds (18 tons) of TVPH have been removed by the system to date.

RECOMMENDATIONS

Bi-weekly operation and maintenance (O&M) visits will continue to be performed by Ensolum and/or Hilcorp personnel to verify that the SVE system is operating within normal working ranges (i.e., temperature, pressure, and vacuum). Deviations from regular operations will be noted on field logs and included in the following quarterly report. Hilcorp will continue operating the SVE until asymptotic conditions are observed. At that time, an evaluation of residual petroluem hydrocarbons will be assessed and further recommendations for remedial actions, if any, will be provided to NMOCD.

We appreciate the opportunity to provide this report to the NMOCD. If you should have any questions or comments regarding this proposal, please contact the undersigned.

Sincerely,
Ensolum, LLC

Stuart Hyde, LG
Senior Geologist
(970) 903-1607
shyde@ensolum.com

Daniel R. Moir, PG
Senior Managing Geologist
(303) 887-2946
dmoir@ensolum.com

Attachments:

Figure 1	Site Location
Figure 2	SVE System Configuration
Table 1	Soil Vapor Extraction System Runtime Calculations
Table 2	Soil Vapor Extraction System Emissions Analytical Results
Table 3	Soil Vapor Extraction System Mass Removal and Emissions
Appendix A	Field Notes
Appendix B	Project Photographs
Appendix C	Laboratory Analytical Reports

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	NCS 1729355513
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# *(if applicable) 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)
	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 (previous operator) 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.

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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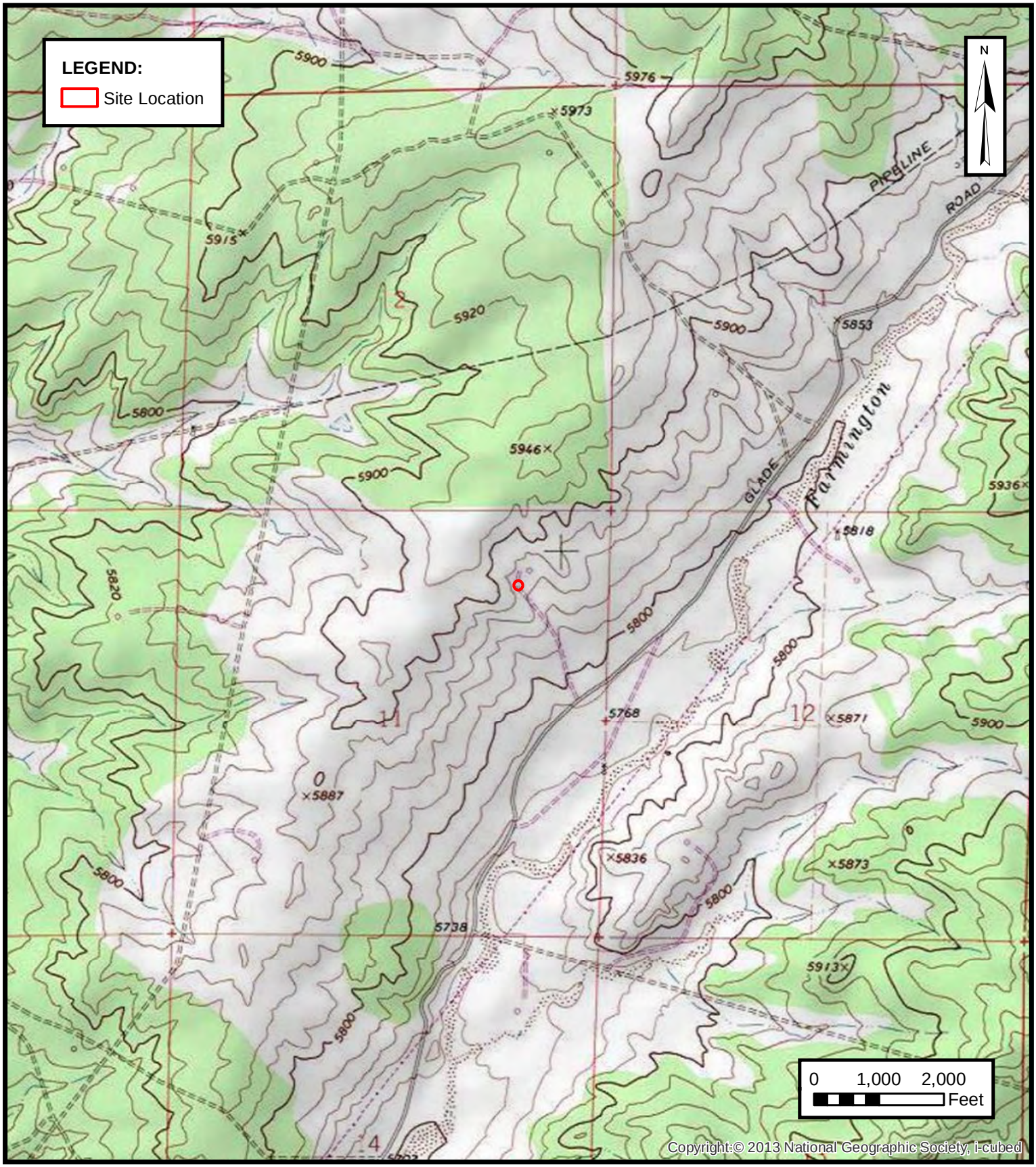
FIGURES



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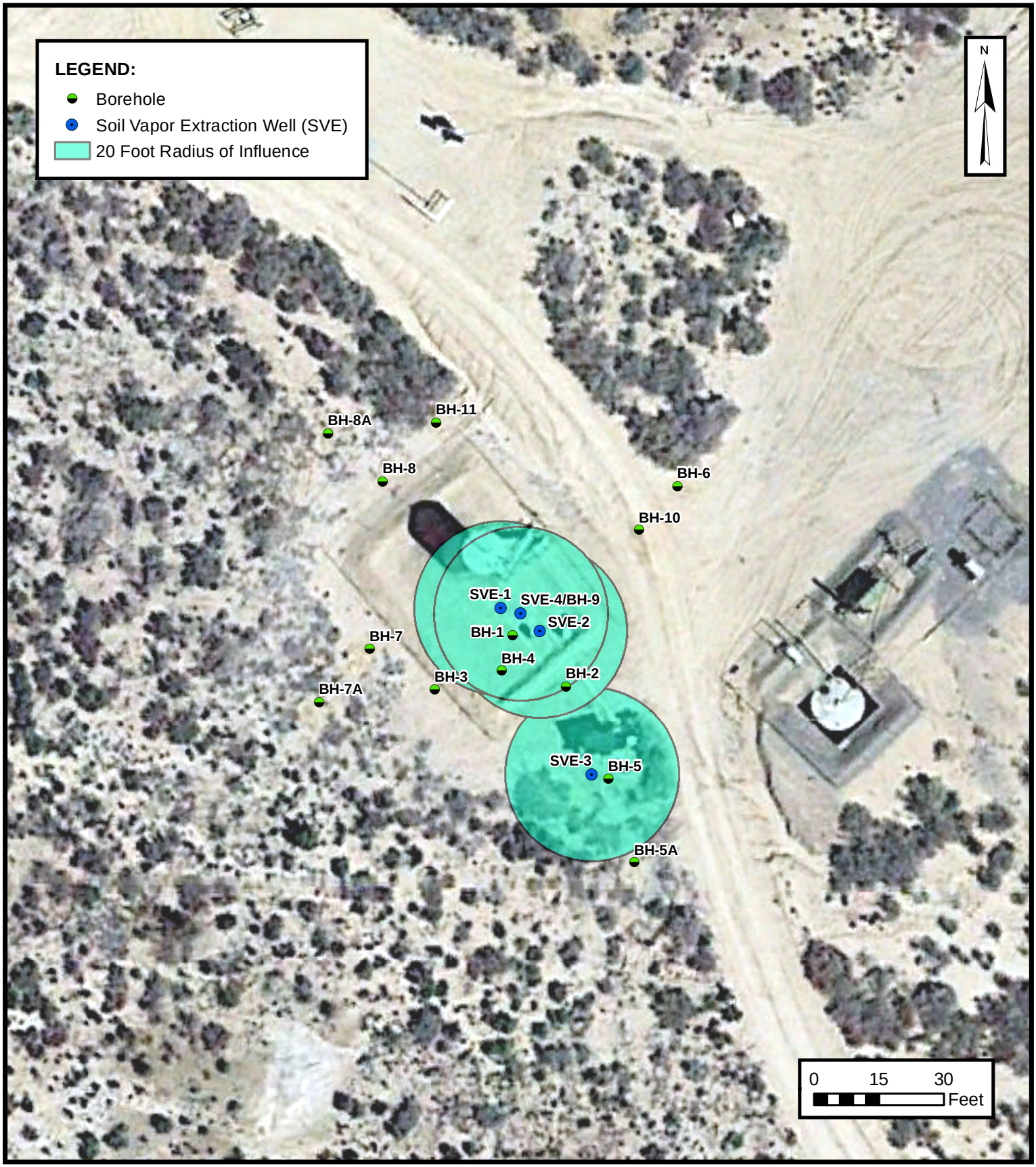
Environmental & Hydrogeologic Consultants

SITE LOCATION

HILLCORP ENERGY COMPANY
BELL FEDERAL GC B#1
NENE SEC 11 T30N R13W, San Juan County, New Mexico
36.893345° N, 107.899185° W

PROJECT NUMBER: 07A1988001

FIGURE
1



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Environmental & Hydrogeologic Consultants

SVE SYSTEM CONFIGURATION

HILLCORP ENERGY COMPANY
BELL FEDERAL GC B#1
NENE SEC 11 T30N R13W, San Juan County, New Mexico
36.893345° N, 107.899185° W

PROJECT NUMBER: 07A1988001

FIGURE
2

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TABLES

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TABLE 1
SOIL VAPOR EXTRACTION SYSTEM RUNTIME CALCULATIONS
Hilcorp Energy Company - Bell Federal GC B#1
San Juan County, New Mexico

Ensolum Project No. 07A1988001

Date	Total Operational Hours	Delta Hours
1/11/2022	13,856.5	---
3/16/2022	14,521.4	664.9

Time Period	January 11 to January 31, 2022	February 1 to February 28, 2022	March 1 to March 15, 2022
Days	20	28	16
Avg. Nominal Daylight Hours	10	10	11
Available Runtime Hours	200	280	176
Quarterly Available Daylight Runtime Hours			**656**
Quarterly Runtime Hours			**664.9**
Quarterly % Runtime			**101.4%**

Month	Days	Nominal Daylight Hours	Total Month Hours
January	31	10	310
February	28	10	280
March	31	11	341
April	30	12	360
May	31	13	403
June	30	14	420
July	31	14	434
August	31	13	403
September	30	12	360
October	31	11	341
November	30	10	300
December	31	9	279

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TABLE 2
SOIL VAPOR EXTRACTION SYSTEM EMISSIONS ANALYTICAL RESULTS
Hilcorp Energy Company - Bell Federal GC B#1
San Juan County, New Mexico

Ensolum Project No. 07A1988001

Date	Inlet PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH/GRO (µg/L)	Oxygen (%)	Carbon Dioxide (%)
1/24/2018	1,435	280	200	<5.0	38.0	30,000	--	--
8/17/2018	1,873	160	380	21.0	320	18,000	--	--
3/22/2019	1,607	490	920	24.0	480	NA	--	--
6/18/2019	1,026	72.0	270	27.0	290	NA	--	--
9/25/2019	1,762	220	480	21.0	440	35,000	--	--
12/16/2019	1,902	130	840	21.0	220	22,000	--	--
3/10/2020	1,171	120	380	19.0	330	31,000	--	--
6/25/2020	978.0	180	430	25.0	480	45,000	--	--
9/16/2020	1,766	186	433	18.0	497	32,100	18.2%	3.29%
12/8/2020	1,741	114	292	10.6	324	16,000	17.3%	4.45%
3/23/2021	1,252	45	86.3	2.3	95.4	7,930	20.2%	<0.500%
6/10/2021	165.8	8.5	20	<0.50	20.0	5,700	17.3%	2.21%
9/8/2021	NM	130	240	5.9	150	33,000	--	--
12/15/2021	1,374	95	160	11.0	220	24,098	16.3%	3.32%
3/16/2021	1,096	53	120	<0.50	82	26,000	16.8%	3.01%

Notes:

GRO: gasoline range hydrocarbons

µg/L: microgram per liter

PID: photoionization detector

ppm: parts per million

TVPH: total volatile petroleum hydrocarbons

%: percent

--: not sampled

<0.037: indicates result less than the stated laboratory reporting limit (RL)

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TABLE 3
SOIL VAPOR EXTRACTION SYSTEM MASS REMOVAL AND EMISSIONS
Hilcorp Energy Company - Bell Federal GC B#1
San Juan County, New Mexico

Ensolum Project No. 07A1988001

Flow and Laboratory Analysis

Date	Inlet PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH (µg/L)
1/24/2018	1,435	280	200	*5.0*	38	30,000
8/17/2018	1,873	160	380	21	320	18,000
3/22/2019	1,607	490	920	24	480	--
6/18/2019	1,026	72	270	27	290	--
9/25/2019	1,762	220	480	21	440	35,000
12/16/2019	1,902	130	840	21	220	22,000
3/10/2020	1,171	120	380	19	330	31,000
6/25/2020	978	180	430	25	480	45,000
9/16/2020	1,766	186	433	18	497	32,100
12/8/2020	1,741	114	292	11	324	16,000
3/23/2021	1,252	45	86	2	95	7,930
6/10/2021	166	9	20	*0.50*	20	5,700
9/8/2021	--	130	240	6	150	33,000
12/15/2021	1,374	95	160	11	220	24,098
3/16/2021	1,096	53	120	*0.50*	82	26,000
Average	1,368	152	350	14	266	25,064

Vapor Extraction Summary

Date	Flow Rate (cfm)	Total System Flow (cf)	Delta Flow (cf)	Benzene (lb/hr)	Toluene (lb/hr)	Ethylbenzene (lb/hr)	Total Xylenes (lb/hr)	TVPH (lb/hr)
1/24/2018	40	164,400	164,400	0.042	0.030	0.001	0.0057	4.5
8/17/2018	33	5,240,130	5,075,730	0.027	0.036	0.0016	0.022	3.0
3/22/2019	32	9,176,130	3,936,000	0.039	0.078	0.0027	0.048	--
6/18/2019	32	11,096,130	1,920,000	0.034	0.071	0.0031	0.046	--
9/25/2019	33	13,610,730	2,514,600	0.018	0.046	0.0030	0.045	3.3
12/16/2019	32	15,513,450	1,902,720	0.021	0.079	0.0025	0.039	3.4
3/10/2020	29	17,246,490	1,733,040	0.014	0.066	0.0022	0.030	2.9
6/25/2020	29	19,123,950	1,877,460	0.016	0.044	0.0024	0.044	4.1
9/16/2020	31	20,825,850	1,701,900	0.021	0.050	0.0025	0.057	4.5
12/8/2020	30	22,049,850	1,224,000	0.017	0.041	0.0016	0.046	2.7
3/23/2021	30	23,122,650	1,072,800	0.0089	0.021	0.00073	0.024	1.3
6/10/2021	33	23,514,690	392,040	0.0033	0.0066	0.00017	0.0071	0.84
9/8/2021	33	23,831,490	316,800	0.0085	0.0160	0.00039	0.010	2.4
12/15/2021	33	26,136,210	2,304,720	0.014	0.025	0.0010	0.023	3.5
3/16/2021	33	27,701,202	1,564,992	0.0091	0.017	0.00071	0.019	3.1
			Average	0.019	0.042	0.002	0.031	3.037

Flow and Laboratory Analysis

Date	Total SVE System Hours	Delta Hours	Benzene (pounds)	Toluene (pounds)	Ethylbenzene (pounds)	Total Xylenes (pounds)	TVPH (pounds)	TVPH (tons)
1/24/2018	69	69	2.9	2.0	0.051	0.39	307	0.15
8/17/2018	2,632	2,564	70	92	4.1	57	7,593	3.8
3/22/2019	4,682	2,050	80	159	5.5	98	--	--
6/18/2019	5,682	1,000	33.6	71	3.1	46	--	--
9/25/2019	6,952	1,270	23	59	3.8	57	4,154	2.1
12/16/2019	7,943	991	21	78	2.5	39	3,380	1.7
3/10/2020	8,939	996	14	66	2.2	30	2,863	1.4
6/25/2020	10,018	1,079	18	47	2.6	47	4,447	2.2
9/16/2020	10,933	915	19	46	2.3	52	4,090	2.0
12/8/2020	11,613	680	11.4	28	1.1	31	1,835	0.92
3/23/2021	12,209	596	5.3	12.6	0.43	14.0	800	0.40
6/10/2021	12,407	198	0.66	1.30	0.035	1.41	167	0.083
9/8/2021	12,567	160	1.4	2.6	0.06	1.7	382	0.19
12/15/2021	13,731	1,164	16	29	1.2	27	4,101	2.1
3/16/2022	14,521	790	7.2	14	0.561	14.7	2,444	1.2
		Total Mass Recovery to Date	322	707	29	516	36,563	18

Notes:

cf: cubic feet

cfm: cubic feet per minute

µg/L: micrograms per liter

lb/hr: pounds per hour

--: not sampled

PID: photoionization detector

ppm: parts per million

TVPH: total volatile petroleum hydrocarbons

gray: laboratory reporting limit used for calculating emissions

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APPENDIX A

Field Notes

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Location Bell Fed Date 1/11/22

Project / Client Hilcorp

RH, T-125

1320 - RH on site Ref Otm

System on upon arrival (running)

Hours @ 1335: 13856.5

calibrate PID w/ 100 ppm Isobutylene

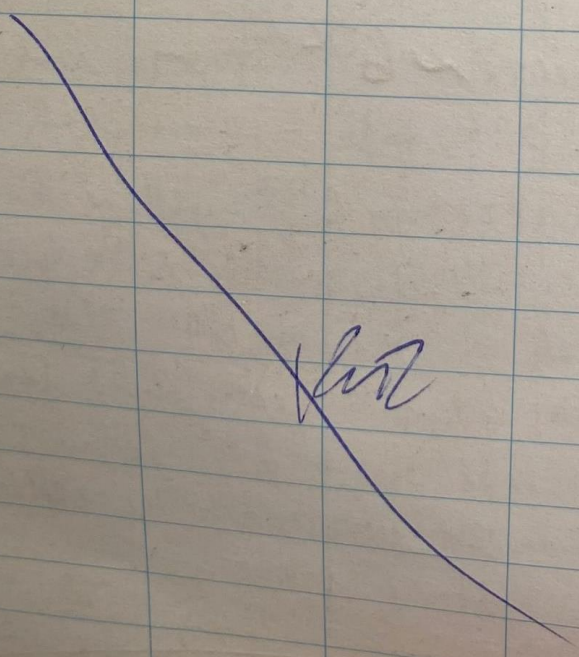
exhaust: 5060 FPM

77.7° F

PID: 1313

SVE 03: Bwl ~ 60° red product

1415 - RH off site



BELL FEDERAL GC B1 SVE SYSTEM
BIWEEKLY O&M FORM

DATE: 2/4/22 | O&M PERSONNEL: Reece Hanson
TIME ONSITE: 1210 | TIME OFFSITE: 1255

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: | KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	14069.8	1212
Pre K/O Vacuum (IWC)	17	
Thermal Anemometer Flow (fpm)		
Thermal Anemometer Temp (C)		
Inlet PID	36.8	
Exhaust PID	27.3	
Solar Panel Angle	-	
K/O Tank Drum Level	2"	
K/O Liquid Drained (gallons)	0	
Timer Setting	~~8:30AM to 2:30PM~~ 9AM to 6 PM (Changed, see comments)	
Heat Trace (on/off)		

TIMER SETTINGS	
Month	Timer Setting
January	8 AM to 7 PM
February	8 AM to 7 PM
March	8 AM to 8 PM
April	8 AM to 9 PM
May	7 AM to 9 PM
June	6 AM to 9 PM
July	6 AM to 9 PM
August	7 AM to 9 PM
September	8 AM to 9 PM
October	8 AM to 8 PM
November	9 AM to 8 PM
December	8 AM to 6 PM

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID: | SAMPLE TIME:
Analytes: TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS

Change in Well Operation:

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01				
SVE02				
SVE03				
SVE04				

PRODUCT RECOVERY

LOCATION	DEPTH TO PRODUCT	DEPTH TO WATER	RECOVERED VOLUM	COMMENTS
SVE-1				
SVE-2RS				
SVE-4				
SVE-11S				
SVE-13S				
SVE-14S				

COMMENTS/OTHER MAINTENANCE:

Timer changed to 8AM to 7PM
Bail ~ 50 oz From SVE03
V
real product

BELL FEDERAL GC B1 SVE SYSTEM
BIWEEKLY O&M FORM

DATE: 3/3/22 O&M PERSONNEL: Reece Hansen
TIME ONSITE: 1405 TIME OFFSITE: 1455

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: | KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	14387.1	1415
Pre K/O Vacuum (IWC)	-	
Thermal Anemometer Flow (fpm)	(exhaust) 4626	
Thermal Anemometer Temp (C)	" 98.9°F	
Inlet PID	-	
Exhaust PID	1233	
Solar Panel Angle	-	
K/O Tank Drum Level	4 inches	
K/O Liquid Drained (gallons)	-	
Timer Setting	8 AM to 8 PM	
Heat Trace (on/off)		

TIMER SETTINGS	
Month	Timer Setting
January	8 AM to 7 PM
February	8 AM to 7 PM
March	8 AM to 8 PM
April	8 AM to 9 PM
May	7 AM to 9 PM
June	6 AM to 9 PM
July	6 AM to 9 PM
August	7 AM to 9 PM
September	8 AM to 9 PM
October	8 AM to 8 PM
November	9 AM to 8 PM
December	8 AM to 6 PM

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID:	SAMPLE TIME:
Analytes:	TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS	

Change in Well Operation:

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01				
SVE02				
SVE03				
SVE04				

PRODUCT RECOVERY

LOCATION	DEPTH TO PRODUCT	DEPTH TO WATER	ECOVERED VOLUM	COMMENTS
SVE-1				
SVE-2RS				
SVE-4				
SVE-11S				
SVE-13S				
SVE-14S				

COMMENTS/OTHER MAINTENANCE:

High vacuum sample pump not working
- Change timer setting to 8 AM to 8 PM

Bail ~ 64 oz red PSH from SVE03

BELL FEDERAL GC B1 SVE SYSTEM
BIWEEKLY O&M FORM

DATE: 3-16-22 O&M PERSONNEL: E. Carroll
TIME ONSITE: 14:20 TIME OFFSITE:

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	14521.4	14:25
Pre K/O Vacuum (IWC)	14	
Thermal Anemometer Flow (fpm)		
Thermal Anemometer Temp (C)		
Inlet PID	1096	
Exhaust PID	986	
Solar Panel Angle	34	
K/O Tank Drum Level	Empty	
K/O Liquid Drained (gallons)	N/A	
Timer Setting	8A - 8P	
Heat Trace (on/off)	Off	

TIMER SETTINGS	
Month	Timer Setting
January	8 AM to 7 PM
February	8 AM to 7 PM
March	8 AM to 8 PM
April	8 AM to 9 PM
May	7 AM to 9 PM
June	6 AM to 9 PM
July	6 AM to 9 PM
August	7 AM to 9 PM
September	8 AM to 9 PM
October	8 AM to 8 PM
November	9 AM to 8 PM
December	8 AM to 6 PM

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID: SAMPLE TIME: 15:05
Analytes: TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS

Change in Well Operation:

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01	13.4	210		
SVE02	13.5	1436		
SVE03	12.6	823		
SVE04	0.3	134		

PRODUCT RECOVERY

LOCATION	DEPTH TO PRODUCT	DEPTH TO WATER	ECOVERED VOLUM	COMMENTS
SVE-1				
SVE-2RS				
SVE-4				
SVE-~~11S~~ 3	43.94	46.61	52 oz	Red clear
SVE-13S				
SVE-14S				

COMMENTS/OTHER MAINTENANCE:

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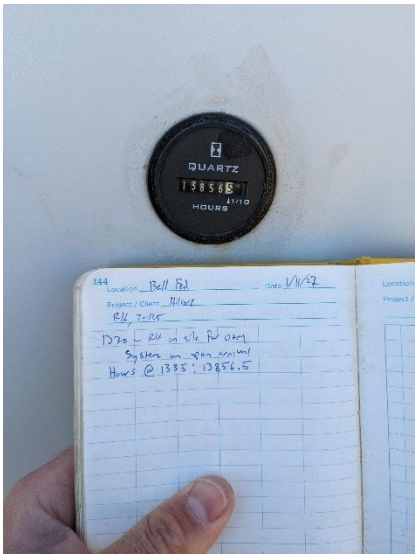
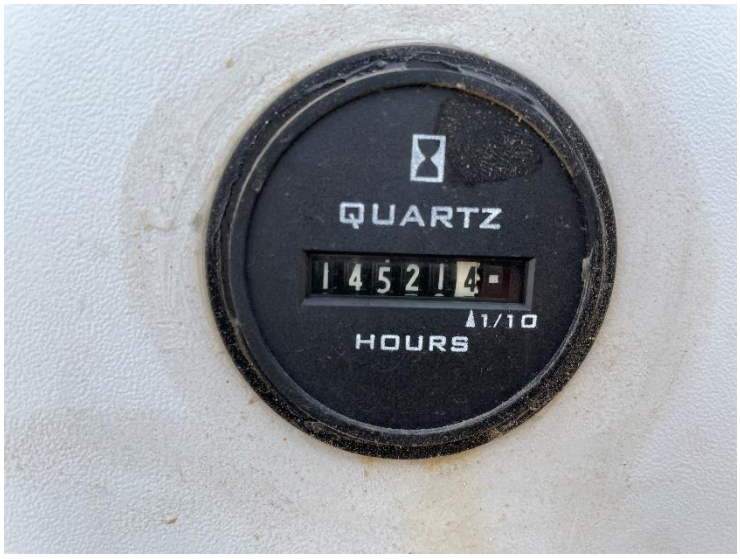
APPENDIX B

Project Photographs

PROJECT PHOTOGRAPHS
Bell Federal GC B#1
San Juan County, New Mexico
Hilcorp Energy Company

Photograph 1 Runtime meter taken on January 11, 2022	
Photograph 2 Runtime meter taken on March 16, 2022	

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Durango, Colorado | info@ensolum.com

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APPENDIX C

Laboratory Analytical Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

March 28, 2022

Mitch Killough
HILCORP ENERGY
PO Box 4700
Farmington, NM 87499
TEL: (505) 564-0733
FAX:

RE: Bell Federal OrderNo.: 2203925

Dear Mitch Killough:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/18/2022 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 **2203925**
Date Reported: **3/28/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: Influent 3-16-22
Project: Bell Federal
Collection Date: 3/16/2022 3:05:00 PM
Lab ID: 2203925-001 **Matrix:** AIR
Received Date: 3/18/2022 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	26000	250		µg/L	50	3/21/2022 9:12:08 AM
Surr: BFB	288	37.3-213	S	%Rec	50	3/21/2022 9:12:08 AM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	53	5.0		µg/L	50	3/22/2022 2:33:00 PM
Toluene	120	5.0		µg/L	50	3/22/2022 2:33:00 PM
Ethylbenzene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,2,4-Trimethylbenzene	5.2	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,3,5-Trimethylbenzene	6.2	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Naphthalene	ND	10		µg/L	50	3/22/2022 2:33:00 PM
1-Methylnaphthalene	ND	20		µg/L	50	3/22/2022 2:33:00 PM
2-Methylnaphthalene	ND	20		µg/L	50	3/22/2022 2:33:00 PM
Acetone	ND	50		µg/L	50	3/22/2022 2:33:00 PM
Bromobenzene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Bromodichloromethane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Bromoform	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Bromomethane	ND	10		µg/L	50	3/22/2022 2:33:00 PM
2-Butanone	ND	50		µg/L	50	3/22/2022 2:33:00 PM
Carbon disulfide	ND	50		µg/L	50	3/22/2022 2:33:00 PM
Carbon tetrachloride	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Chlorobenzene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Chloroethane	ND	10		µg/L	50	3/22/2022 2:33:00 PM
Chloroform	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Chloromethane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
2-Chlorotoluene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
4-Chlorotoluene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
cis-1,2-DCE	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	50	3/22/2022 2:33:00 PM
Dibromochloromethane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Dibromomethane	ND	10		µg/L	50	3/22/2022 2:33:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Dichlorodifluoromethane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM

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

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
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2203925**
Date Reported: **3/28/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: Influent 3-16-22
Project: Bell Federal
Collection Date: 3/16/2022 3:05:00 PM
Lab ID: 2203925-001 **Matrix:** AIR **Received Date:** 3/18/2022 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
1,2-Dichloropropane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,3-Dichloropropane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
2,2-Dichloropropane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,1-Dichloropropene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Hexachlorobutadiene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
2-Hexanone	ND	50		µg/L	50	3/22/2022 2:33:00 PM
Isopropylbenzene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
4-Isopropyltoluene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
4-Methyl-2-pentanone	ND	50		µg/L	50	3/22/2022 2:33:00 PM
Methylene chloride	ND	15		µg/L	50	3/22/2022 2:33:00 PM
n-Butylbenzene	ND	15		µg/L	50	3/22/2022 2:33:00 PM
n-Propylbenzene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
sec-Butylbenzene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Styrene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
tert-Butylbenzene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
trans-1,2-DCE	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Trichloroethene (TCE)	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
1,2,3-Trichloropropane	ND	10		µg/L	50	3/22/2022 2:33:00 PM
Vinyl chloride	ND	5.0		µg/L	50	3/22/2022 2:33:00 PM
Xylenes, Total	82	7.5		µg/L	50	3/22/2022 2:33:00 PM
Surr: Dibromofluoromethane	99.3	70-130		%Rec	50	3/22/2022 2:33:00 PM
Surr: 1,2-Dichloroethane-d4	86.5	70-130		%Rec	50	3/22/2022 2:33:00 PM
Surr: Toluene-d8	98.4	70-130		%Rec	50	3/22/2022 2:33:00 PM
Surr: 4-Bromofluorobenzene	94.1	70-130		%Rec	50	3/22/2022 2:33:00 PM

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	Estimated value
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 Limit
S	% Recovery outside of range due to dilution or matrix interference		

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ANALYTICAL SUMMARY REPORT

March 25, 2022

Hall Environmental
4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: G22030364

Project Name: Not Indicated

Energy Laboratories Inc. Gillette WY received the following 1 sample for Hall Environmental on 3/22/2022 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
G22030364-001	2203925-001B; Influent 3-16-22	03/16/22 15:05	03/22/22	Air	Natural Gas Analysis - BTU Natural Gas Analysis - Compressibility Factor Natural Gas Analysis - GPM Natural Gas Analysis - Molecular Weight Natural Gas Analysis - Routine Natural Gas Analysis - Pressure Base Natural Gas Analysis - Psuedo-Critical Pressure Natural Gas Analysis - Psuedo-Critical Temperature Natural Gas Analysis - Specific Gravity Natural Gas Analysis - Temperature Base

The analyses presented in this report were performed by Energy Laboratories, Inc., 400 W. Boxelder Rd., Gillette, WY 82718, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these tests results, please contact your Project Manager.

Report Approved By:

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LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

Client: Hall Environmental
Project: Not Indicated
Client Sample ID: 2203925-001B; Influent 3-16-22
Location:
Lab ID: G22030364-001

Report Date: 03/25/22
Collection Date: 03/16/22 15:05
Date Received: 03/22/22
Sampled By: Not Indicated

Analyses	Result	Units	Qualifier	Method	Analysis Date / By
NATURAL GAS CHROMATOGRAPHIC ANALYSIS REPORT					
Oxygen	16.796	Mol %		GPA 2261	03/24/22 14:08 / blb
Nitrogen	80.010	Mol %		GPA 2261	03/24/22 14:08 / blb
Carbon Monoxide	< 0.001	Mol %		GPA 2261	03/24/22 14:08 / blb
Carbon Dioxide	3.007	Mol %		GPA 2261	03/24/22 14:08 / blb
Hydrogen Sulfide	< 0.001	Mol %		GPA 2261	03/24/22 14:08 / blb
Methane	< 0.001	Mol %		GPA 2261	03/24/22 14:08 / blb
Ethane	< 0.001	Mol %		GPA 2261	03/24/22 14:08 / blb
Propane	< 0.001	Mol %		GPA 2261	03/24/22 14:08 / blb
Isobutane	< 0.001	Mol %		GPA 2261	03/24/22 14:08 / blb
n-Butane	0.002	Mol %		GPA 2261	03/24/22 14:08 / blb
Isopentane	0.008	Mol %		GPA 2261	03/24/22 14:08 / blb
n-Pentane	0.011	Mol %		GPA 2261	03/24/22 14:08 / blb
Hexanes plus	0.166	Mol %		GPA 2261	03/24/22 14:08 / blb
GPM @ STD COND/1000 CU.FT., MOISTURE FREE GAS					
GPM Ethane	< 0.0003	gal/MCF		GPA 2261	03/24/22 14:08 / blb
GPM Propane	< 0.0003	gal/MCF		GPA 2261	03/24/22 14:08 / blb
GPM Isobutane	< 0.0003	gal/MCF		GPA 2261	03/24/22 14:08 / blb
GPM n-Butane	0.0010	gal/MCF		GPA 2261	03/24/22 14:08 / blb
GPM Isopentane	0.0030	gal/MCF		GPA 2261	03/24/22 14:08 / blb
GPM n-Pentane	0.0040	gal/MCF		GPA 2261	03/24/22 14:08 / blb
GPM Hexanes plus	0.0720	gal/MCF		GPA 2261	03/24/22 14:08 / blb
GPM Pentanes plus	0.0790	gal/MCF		GPA 2261	03/24/22 14:08 / blb
GPM Total	0.0800	gal/MCF		GPA 2261	03/24/22 14:08 / blb
CALCULATED PROPERTIES					
Calculation Pressure Base	14.730	psia		GPA 2261	03/24/22 14:08 / blb
Calculation Temperature Base	60	°F		GPA 2261	03/24/22 14:08 / blb
Compressibility Factor, Z	1.0000	unitless		GPA 2261	03/24/22 14:08 / blb
Molecular Weight	29.28	unitless		GPA 2261	03/24/22 14:08 / blb
Pseudo-critical Pressure, psia	551	psia		GPA 2261	03/24/22 14:08 / blb
Pseudo-critical Temperature, deg R	247	deg R		GPA 2261	03/24/22 14:08 / blb
Specific Gravity (air=1.000)	1.014	unitless		GPA 2261	03/24/22 14:08 / blb
Gross BTU per cu ft @ std cond, dry	9.34	BTU/cu ft		GPA 2261	03/24/22 14:08 / blb
Gross BTU per cu ft @ std cond, wet	9.18	BTU/cu ft		GPA 2261	03/24/22 14:08 / blb

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Gillette, WY Branch

Client: Hall Environmental **Work Order:** G22030364 **Report Date:** 03/25/22

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261**									Analytical Run: R270004
Lab ID: **CCV-2203241254**	Continuing Calibration Verification Standard								03/24/22 12:55
Oxygen	0.637	Mol %	0.001	106	90	110			
Nitrogen	1.378	Mol %	0.001	98	85	110			
Carbon Dioxide	0.954	Mol %	0.001	95	90	110			
Hydrogen Sulfide	0.025	Mol %	0.001	100	70	130			
Methane	93.438	Mol %	0.001	100	90	110			
Ethane	1.014	Mol %	0.001	101	90	110			
Propane	1.009	Mol %	0.001	101	90	110			
Isobutane	0.495	Mol %	0.001	99	90	110			
n-Butane	0.495	Mol %	0.001	99	90	110			
Isopentane	0.200	Mol %	0.001	100	90	110			
n-Pentane	0.201	Mol %	0.001	100	90	110			
Hexanes plus	0.154	Mol %	0.001	103	90	110			
Lab ID: **ICV-2203241303**	Initial Calibration Verification Standard								03/24/22 13:04
Oxygen	0.391	Mol %	0.001	97	75	110			
Nitrogen	5.154	Mol %	0.001	103	90	110			
Carbon Dioxide	4.900	Mol %	0.001	99	90	110			
Hydrogen Sulfide	0.130	Mol %	0.001	131	100	136			
Methane	73.196	Mol %	0.001	100	90	110			
Ethane	4.997	Mol %	0.001	101	90	110			
Propane	4.993	Mol %	0.001	100	90	110			
Isobutane	1.984	Mol %	0.001	99	90	110			
n-Butane	1.965	Mol %	0.001	98	90	110			
Isopentane	0.986	Mol %	0.001	99	90	110			
n-Pentane	0.997	Mol %	0.001	100	90	110			
Hexanes plus	0.307	Mol %	0.001	102	90	110			
Lab ID: **ICV1-2203241325**	Initial Calibration Verification Standard								03/24/22 13:25
Nitrogen	98.951	Mol %	0.001	100	90	110			
Carbon Monoxide	1.049	Mol %	0.001	103	90	110			
Lab ID: **CCV1-2203241334**	Continuing Calibration Verification Standard								03/24/22 13:35
Nitrogen	99.904	Mol %	0.001	100	85	110			
Carbon Monoxide	0.096	Mol %	0.001	95	90	110			
Lab ID: **CCV-2203241628**	Continuing Calibration Verification Standard								03/24/22 16:28
Oxygen	0.609	Mol %	0.001	102	90	110			
Nitrogen	1.288	Mol %	0.001	92	85	110			
Carbon Dioxide	0.965	Mol %	0.001	97	90	110			
Hydrogen Sulfide	0.021	Mol %	0.001	84	70	130			
Methane	93.560	Mol %	0.001	100	90	110			
Ethane	1.015	Mol %	0.001	101	90	110			
Propane	1.006	Mol %	0.001	101	90	110			
Isobutane	0.492	Mol %	0.001	98	90	110			
n-Butane	0.492	Mol %	0.001	98	90	110			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Gillette, WY Branch

Client: Hall Environmental **Work Order:** G22030364 **Report Date:** 03/25/22

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261**								Analytical Run: R270004	
Lab ID: **CCV-2203241628**	Continuing Calibration Verification Standard							03/24/22 16:28	
Isopentane	0.199	Mol %	0.001	99	90	110			
n-Pentane	0.200	Mol %	0.001	100	90	110			
Hexanes plus	0.153	Mol %	0.001	102	90	110			
Method: **GPA 2261**								Batch: R270004	
Lab ID: **G22030364-001ADUP**	Sample Duplicate				Run: Varian GC_220324A			03/24/22 14:16	
Oxygen	16.799	Mol %	0.001				0.0	10	
Nitrogen	80.003	Mol %	0.001				0.0	10	
Carbon Monoxide	< 0.001	Mol %	0.001					10	
Carbon Dioxide	3.009	Mol %	0.001				0.1	10	
Hydrogen Sulfide	< 0.001	Mol %	0.001					10	
Methane	< 0.001	Mol %	0.001					10	
Ethane	< 0.001	Mol %	0.001					10	
Propane	< 0.001	Mol %	0.001					10	
Isobutane	< 0.001	Mol %	0.001					10	
n-Butane	0.002	Mol %	0.001				0.0	10	
Isopentane	0.008	Mol %	0.001				0.0	10	
n-Pentane	0.011	Mol %	0.001				0.0	10	
Hexanes plus	0.168	Mol %	0.001				1.2	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist

Hall Environmental

G22030364

Login completed by: Jill S. Jeffress
Date Received: 3/22/2022
Reviewed by: Misty Stephens
Received by: jsj
Reviewed Date: 3/22/2022
Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Applicable ☑
Container/Temp Blank temperature:	°C		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

Contact and Corrective Action Comments:

None

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

SUB CONTRATOR	Energy Labs-Gillette	COMPANY	Energy Laboratories	PHONE	(866) 686-7175
ADDRESS	400 W Boxelder Rd			ACCOUNT #	
CITY, STATE, ZIP	Gillette, WY 82718				

ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2203925-001B	Influent 3-16-22	TEDLAR	Air	3/16/2022 3:05:00 PM	1	FIXED GASES O2, CO2, CO

6220303604

SPECIAL INSTRUCTIONS / COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By		Date 3/18/2022	Time 12:00 PM	Received By M. Ray	Date 3/22/2022	Time 1109
~~Relinquished By~~		~~Date~~	~~Time~~	~~Received By~~	Date	Time
Relinquished By		Date	Time	Received By	Date	Time

TAT: Standard X RUSH Next BD 2nd BD 3rd BD

REPORT TRANSMITTAL DESIRED: HARDCOPY (extra cost) FAX EMAIL ONLINE

FOR LAB USE ONLY

Temp of samples °C Attempt to Cool ?

Comments

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2203925 RcptNo: 1

Received By: Cheyenne Cason 3/18/2022 8:05:00 AM

Completed By: Cheyenne Cason 3/17/2022 8:17:11 AM

Reviewed By: JR 3/18/22

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. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
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 ☐	Checked by: 3/18/22

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**

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

Chain-of-Custody Record

Client: Hilcorp

Mitch Killough

Mailing Address:

Phone #:

email or Fax#: mkillough@hilcorp.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name: Bell Federal

Project #:

Project Manager: Devin Hencmann

Sampler: E. carroll

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): NA (°C)

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 Name	Container Type and #	Preservative Type	HEAL No. 2203925	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Fixed gas (O_2, CO_2, CO)
3-16	15:05	Air	Influent 3-16-22	2 Tedlar		001		X						X			X

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
3/16	1547	Eric Carroll				
3/16/22	1753				3/18/22	0805
					3/17/22 ~~0700~~ 3/18/22	

Remarks:

CC: eric.carroll@usp.com

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.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 97902

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	372171
	Action Number: 97902
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Accepted for the record. See App ID 124694 for most updated status.	9/27/2022