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	
District RP	
Facility ID	
Application ID	

I Release Notification

Responsible Party

Responsible Party Hilcorp Energy	OGRID 372171
Contact Name Clara Cardoza	Contact Telephone 505-564-0733
Contact email ccardoza@hilcorp. com	Incident #*(assigned by OCD)*
Contact mailing address 382 CR 3100 Aztec NM 87410	

Location of Release Source

Latitude 36. 7496223 Longitude -108. 0189896
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Fifield 5 1	Site Type Well Site (Plugged)
Date Release Discovered 06/01/2017	API# *(if applicable)* 30-045-08640

Unit Letter	Section	Township	Range	County
N	05	29N	11W	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)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☒ Other (describe) Historic Hydrocarbon	Volume/Weight Released (provide units) Unknown	Volume/Weight Recovered (provide units) 0

Cause of Release
During BGT closure activities of P&A well, historic contamination was discovered under the North BGT.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Historic release

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
N/A

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☐ The source of the release has been stopped.
☐ The impacted area has been secured to protect human health and the environment.
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☐ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

This is a historic release and there was no active source at the time of discovery.

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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: __Clara Cardoza_____ Title: __Environmental Specialist_____

Signature: _____ Date: __3/5/2019_____

email: __ccardoza@hilcorp.com_____ Telephone: _____505.564.0733_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
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)

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: ___Clara Cardoza_____ Title: ____Environmental Specialist_____

Signature: _____ Date: ___3/5/2019_____

email: __ccardoza@hilcorp.com_____ Telephone: ____505.564.0733 _____

OCD Only

Received by: Vanessa Fields Date: 3/5/2019

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

See attached email

Signature: _____ Date: 3/6/2019

TIMBERWOLF ENVIRONMENTAL

1920 W. Villa Maria, Ste. 205
Bryan, Texas 77807
979.324.2139
www.teamtimberwolf.com

February 28, 2019

Ms. Clara Cardoza
Hilcorp Energy Company
1111 Travis Street
Houston, Texas 77002

Re: Site Characterization and Remedial Action Plan
Fifield 5 No. 1
Hilcorp Energy Company
San Juan County, New Mexico

Dear Ms. Cardoza:

At the request of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this site characterization and remedial action plan for the Fifield 5 No. 1 (Site). The Site is located approximately 3.3 miles northwest of Bloomfield, in San Juan County, New Mexico (Figures 1 – 3).

The purpose of this document is to: 1) summarize initial assessment activities, 2) present additional site characterization activities, and 3) outline the preferred remedial option to bring the Site to regulatory closure.

Environmental Setting

The area consists of sparse vegetative cover comprised primarily of scrub brush. Average elevation at the Site is approximately 5,788 feet (ft) above mean sea level. There are no surface bodies of water within a one-mile radius of the Site; groundwater is expected to be greater than 50 ft below ground surface (bgs).

According to the U.S. Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS), the Site soil consists of the Gypsiorthids-Badland-Stumble complex, 5 to 30 percent slopes. The surface layer consists of sandy loam, underlain by lithic bedrock encountered between 16 to 20 inches bgs. Native salinity of the soil is very slightly saline to slightly saline (2.0 to 4.0 millimhos per centimeter (mmhos/cm)).

Site Overview

Historically, the Site has consisted of one above-ground storage tank (AST) and one below-grade tank (BGT). On or about 06/01/17, during the removal and closure of the BGT, historical contamination was discovered beneath the BGT. Initial assessment efforts were conducted by Rule Engineering, LLC (Rule), a subcontractor of ConocoPhillips Company (ConocoPhillips), prior to Hilcorp's acquisition of the property in 2017.

The initial assessment identified constituents of concern (COCs) as: total BTEX (i.e., benzene, toluene, ethylbenzene, and xylenes) and total petroleum hydrocarbons (TPH).

Regulatory Criteria

According to the ConocoPhillips' BGT permits, the closure standards for the BGT are derived from the New Mexico Administrative Code (NMAC) 19.15.17 (Pits, Closed Loop Systems, Below Grade Tanks, and Sumps) Section H (Reclamation of pit locations, onsite burial locations and drying pad locations.). The permit specified the most stringent closure criteria for a release from a BGT. The regulatory criteria for the Site is presented in Table 1 below.

Table 1. Closure Criteria for Soils Beneath Below-Grade Tanks, Drying Pads Associated with Closed-Loop Systems and Pits where Contents are Removed

Depth below bottom of pit to groundwater less than 10,000 mg/L TDS	Constituent	Laboratory Method	Regulatory Limit (mg/kg)
< 50 feet	Chloride	EPA 300.0	600
	TPH	EPA SW-846 Method 8015M	100
	Total BTEX	EPA SW-846 Method 8021B or 8260	50
	Benzene	EPA SW-846 Method 8021B or 8260	10

EPA –Environmental Protection Agency
SW – solid waste

Initial Assessment

On 12/22/17 and 02/05/18-02/07/18, Rule utilized a rotary drilling rig equipped with a hollow-stem auger for soil sample collection. Soils borings were logged for morphological characteristic and field screened for volatile organic compounds (VOCs) using a photoionization detector (PID).

Rule collected thirteen soil samples from ten borings (i.e., SB1 – SB10) using a rotary drilling rig equipped with hollow-stem augers. Locations of soil borings are shown in Figure 4. Total depths of each boring ranged from 31 to 56 ft bgs. Groundwater was not encountered.

Soil encountered at the Site typically consisted of shale or clay underlain by dense clay or sandstone. PID readings ranged from < 1.0 parts per million (ppm) to 3,003 ppm. The highest concentration of VOCs was observed in SB1 at approximately 27 ft bgs. PID readings and laboratory results are recorded in the Appendix.

Soil samples selected for laboratory analysis included the intervals exhibiting the highest PID readings. Soil samples were analyzed for one or more of the following:

- BTEX
- TPH-GRO, TPH-DRO, and TPH-MRO (extended range)

Findings of the Initial Assessment

Analytical results from the initial assessment revealed the following:

- Total BTEX concentrations exceeded regulatory criteria in two soil samples: SB1 27.5-28.5' and SB5 17.5-18.5'
    - SB1 was situated west and upgradient from the BGT; SB5 was situated east and downgradient form the BGT
    - Total BTEX exceedances ranged from 64 mg/kg to 216 mg/kg; the highest concentration was observed in SB1 27.5-28.5
- TPH concentrations exceeded regulatory limits in seven soil samples
    - TPH exceeded regulatory criteria in SB1 27.5-28.5', SB1 35-36', SB2 15-16', SB2 35-36', SB4 22.5-23.5', SB5 17.5-18.5', and SB6 25-26'
    - TPH exceedances ranged from 232 mg/kg to 3,210 mg/kg; the highest concentration was observed in SB1 27.5-28.5'.
    - The primary hydrocarbon component was GRO
- Concentrations of all other COCs were below regulatory criteria
- Delineation was not achieved at the Site
    - The vertical extent of impacted soil is not well defined but approximated at 45 ft bgs
    - The horizontal extent of impacted soil was well defined to the west, south and east; an additional boring and laboratory analysis is required to the north/northwest (i.e. upgradient) for complete horizontal delineation

Site Characterization Plan

Site soil is comprised of shale or clay underlain by dense clay or sandstone. The thickness of the clay/shale unit ranges from 10 to 25 ft bgs across the impacted area. The topographical surface elevation dips to the southeast. Field screening and laboratory analysis reveal that hydrocarbon impacted soil is generally limited to the sandstone lithological feature.

The horizontal distribution of hydrocarbons suggest that the sources of hydrocarbon contamination are from a historical release from the removed BGT. Samples collected within the impacted soil area (SB1, SB2, SB4, SB5, and SB6) exhibited the highest concentrations of total BTEX and TPH. SB1 was situated immediately adjacent to the point of release (i.e. upgradient from the BGT); SB2, SB4, SB5, and SB6 were all situated southeast and downgradient from the point of release. SB7, SB8, and SB10 provided horizontal delineation to the west, south and east, respectively. Note: SB3 was installed to the northwest; however, no sample analysis was conducted. Locations of each soil boring are shown in Figure 4.

Concentrations of petroleum hydrocarbons in the sandstone at depths of 41 ft bgs indicates that the sandstone is not a reliable geological barrier. Horizontal migration of petroleum hydrocarbons is slowed by the dense features of the clay, shale, and sandstone as depicted in Exhibit A1 and Exhibit A2 (i.e., Cross-Sectional View of PID Readings). Timberwolf recommends three additional soil borings (i.e., SB11 – SB13) to determine vertical and horizontal extents of constituents. One boring will be located within the former tank battery to vertically delineate. The two additional borings will be installed to the northwest and the southeast for horizontal delineation. Proposed borings are presented in Figure 4.

Soil borings will be advanced utilizing a rotary drilling rig equipped with hollow-stem augers. Soil samples will be logged continuously from the ground surface to the total depth of each boring or until hollow-stem auger refusal. Borings will be logged for morphological characteristics and field screened for VOCs using a PID.

Soil samples selected for laboratory analysis from each boring will include intervals exhibiting the highest PID readings to demonstrate horizontal and vertical delineation. Soil samples will be placed in laboratory-provided sample containers, stored on ice, and transported under proper chain-of-custody protocol to an accredited laboratory for chemical analysis. Soil samples will be analyzed for one or more of the following:

- BTEX by SW-846 EPA Method 8021 or 8260
- GRO, DRO, and MRO (extended range) by SW-846 EPA Method 8015M

Additionally, samples will be collected for from each geological unit for geotechnical analysis to determine soil characteristics at the Site (i.e., hydraulic conductivity, bulk density, porosity, etc).

Remedial Action Plan

The initial assessment revealed the COCs at this Site include total BTEX and TPH; most of the TPH was observed in the gasoline range (i.e., C_6-C_{10}). Total BTEX and GRO are readily degradable by bioremediation and volatilization which can be achieved in situ.

A soil-vapor extraction (SVE) system can be installed at the Site to achieve in situ treatment of impacted soil. Timberwolf recommends installation of approximately 13 to 15 SVE wells, each constructed of 2-inch PVC and screened across the impacted intervals. Wells will be piped to a manifold system powered by a vacuum pump or blower. The system runtime will be between 4-6 hours to prevent preferential pathways from developing.

A detailed SVE system will be designed once geotechnical data is available. A Site Remediation Plan presenting the designed SVE system, operation and maintenance schedule, and anticipated closure timeline will be submitted to the NMOCD for approval prior to system installation.

Soil will be monitored periodically. Once regulatory compliance is achieved the SVE system will be discontinued and dismantled.

Timberwolf appreciates the opportunity to provide Hilcorp with our professional consulting services. If you have any questions regarding this proposal, please contact us at (979) 324-2135.

Sincerely,
Timberwolf Environmental, LLC

Clay Morris
Project Scientist

Jim Foster
President

Attachments: Figures
Exhibits
Appendix

TIMBERWOLF ENVIRONMENTAL

Figures

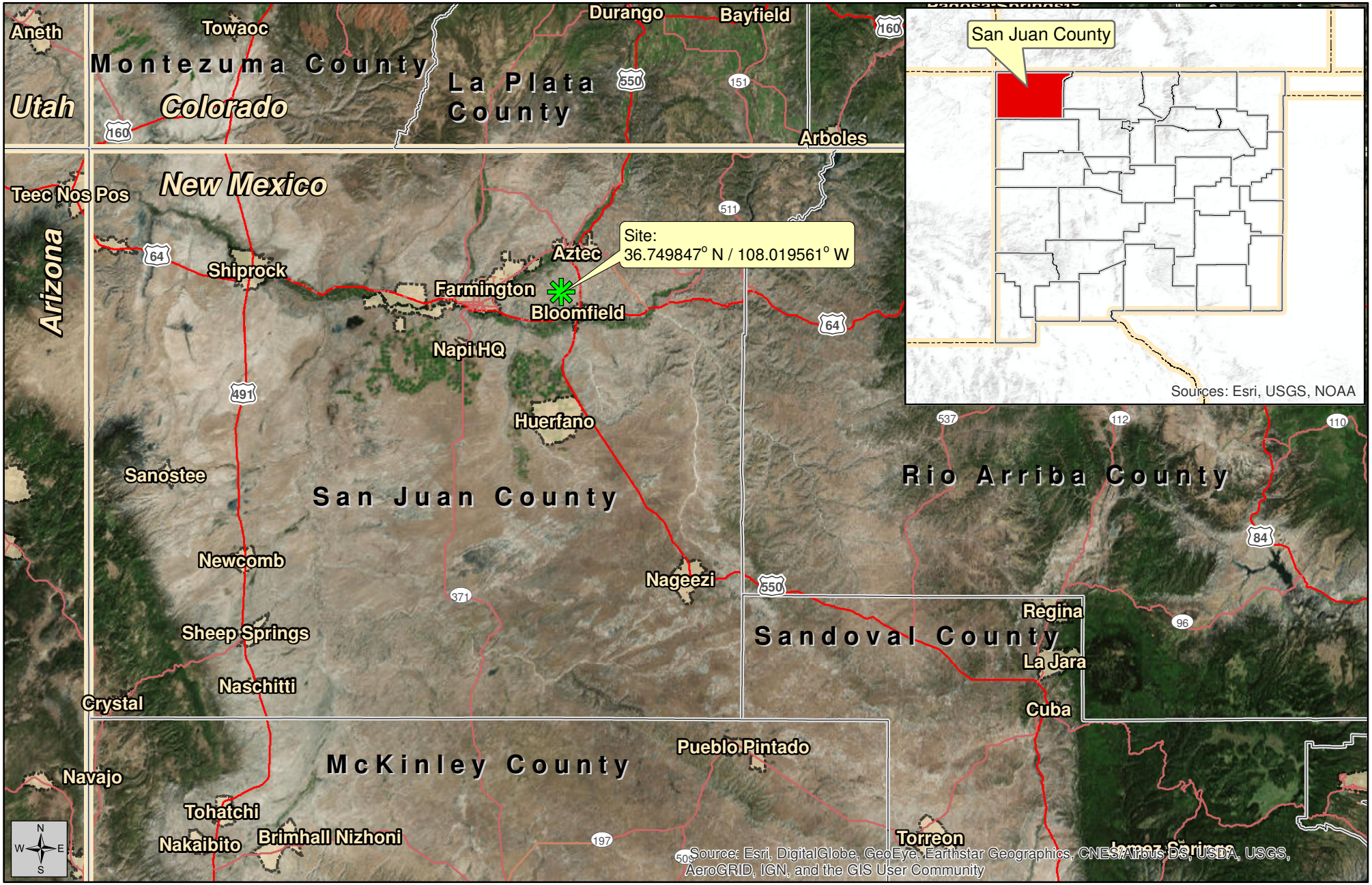


Figure 1 **Site Location Map**	**Site Charactorization and Remedial Action Plan**	**February 28, 2019**
TIMBERWOLF ENVIRONMENTAL	1:1,250,000 0 20 40 60 80 100 120 Miles **Fifield 5 No. 1 Release** **Hilcorp Energy Company** **San Juan County, New Mexico**	Site
Created By: Kevin Cole TE Project No.: HEC-190009	Datum: NAD83 Imagery Source: ESRI Vector Source: ESRI and TE	

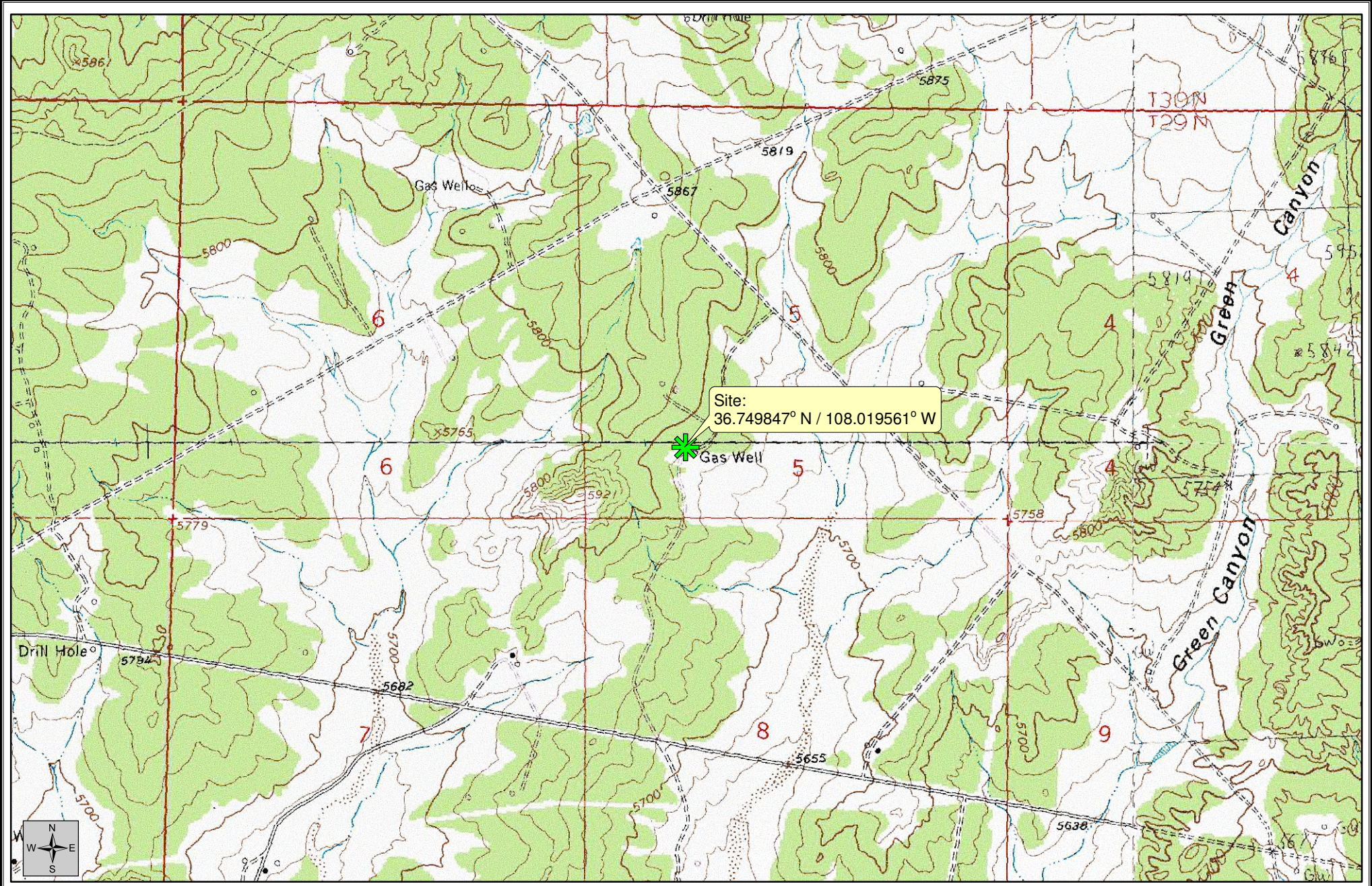


Figure 2
Topographic Map

Site Charactorization and Remedial Action Plan

February 28, 2019

1:24,000

0 0.5 1 1.5 2 2.5 Miles

TIMBERWOLF ENVIRONMENTAL

Created By:
Kevin Cole
TE Project No.: HEC-190009

Fifield 5 No. 1 Release
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: USGS
Quads: Aztec, Bloomfield, Flora Vista, Horn Canyon
Vector Source: TE

Site

Figure 3 **Aerial Map**	**Site Charactorization and Remedial Action Plan**	**February 28, 2019**
TIMBERWOLF ENVIRONMENTAL	1:10,000 0 — 0.25 — 0.5 — 0.75 — 1 Miles **Fifield 5 No. 1 Release** **Hilcorp Energy Company** **San Juan County, New Mexico**	Site

Created By:
Kevin Cole
TE Project No.: HEC-190009

Datum: NAD83
Imagery Source: ESRI
Vector Source: TE

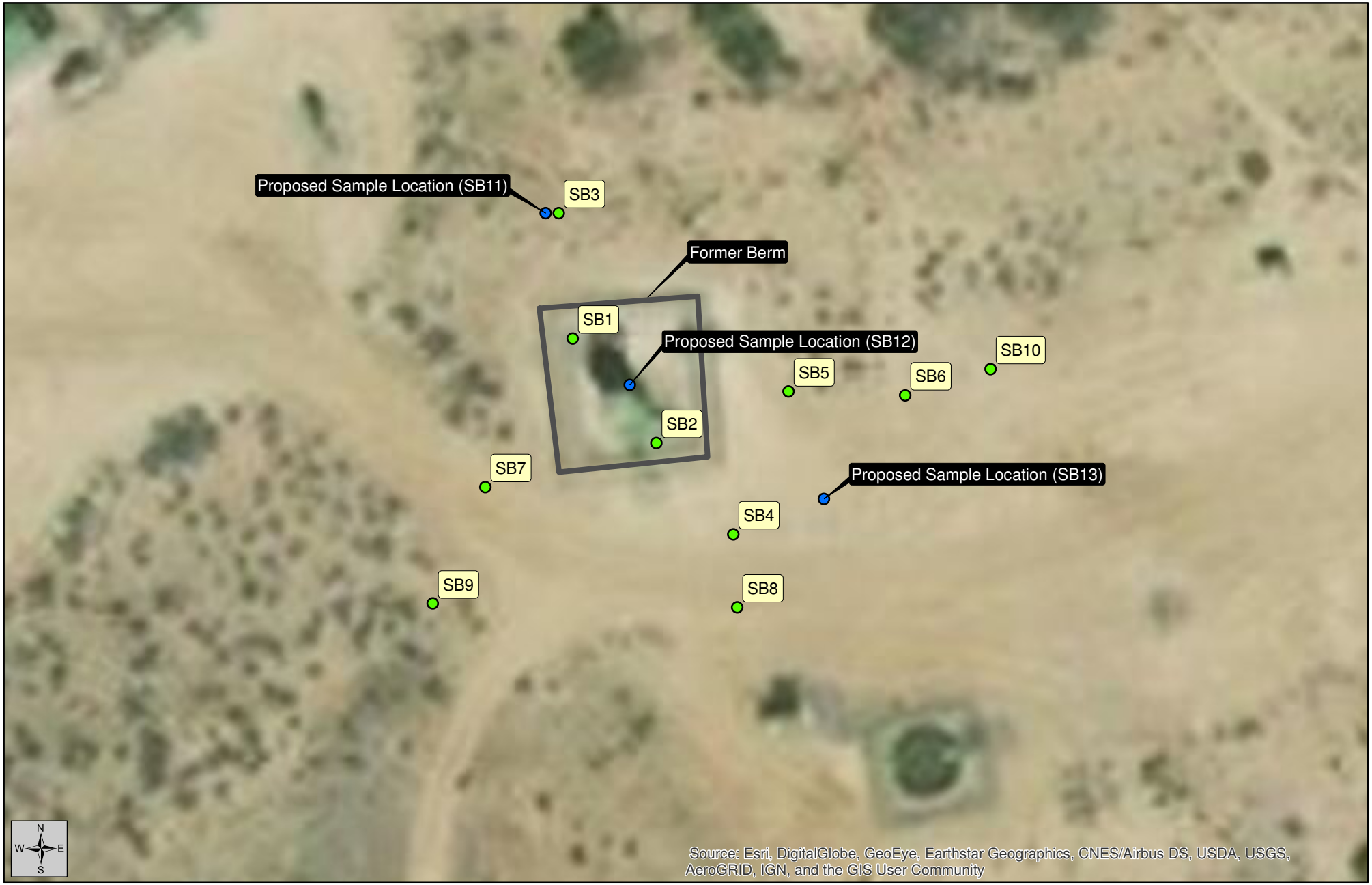


Figure 4
Former Sample Location and Proposed Sample Location Map

Site Charactorization and Remedial Action Plan

February 28, 2019

TIMBERWOLF ENVIRONMENTAL

1:500

0 50 100 150 200 250 Feet

Created By:
Kevin Cole
TE Project No.: HEC-190009

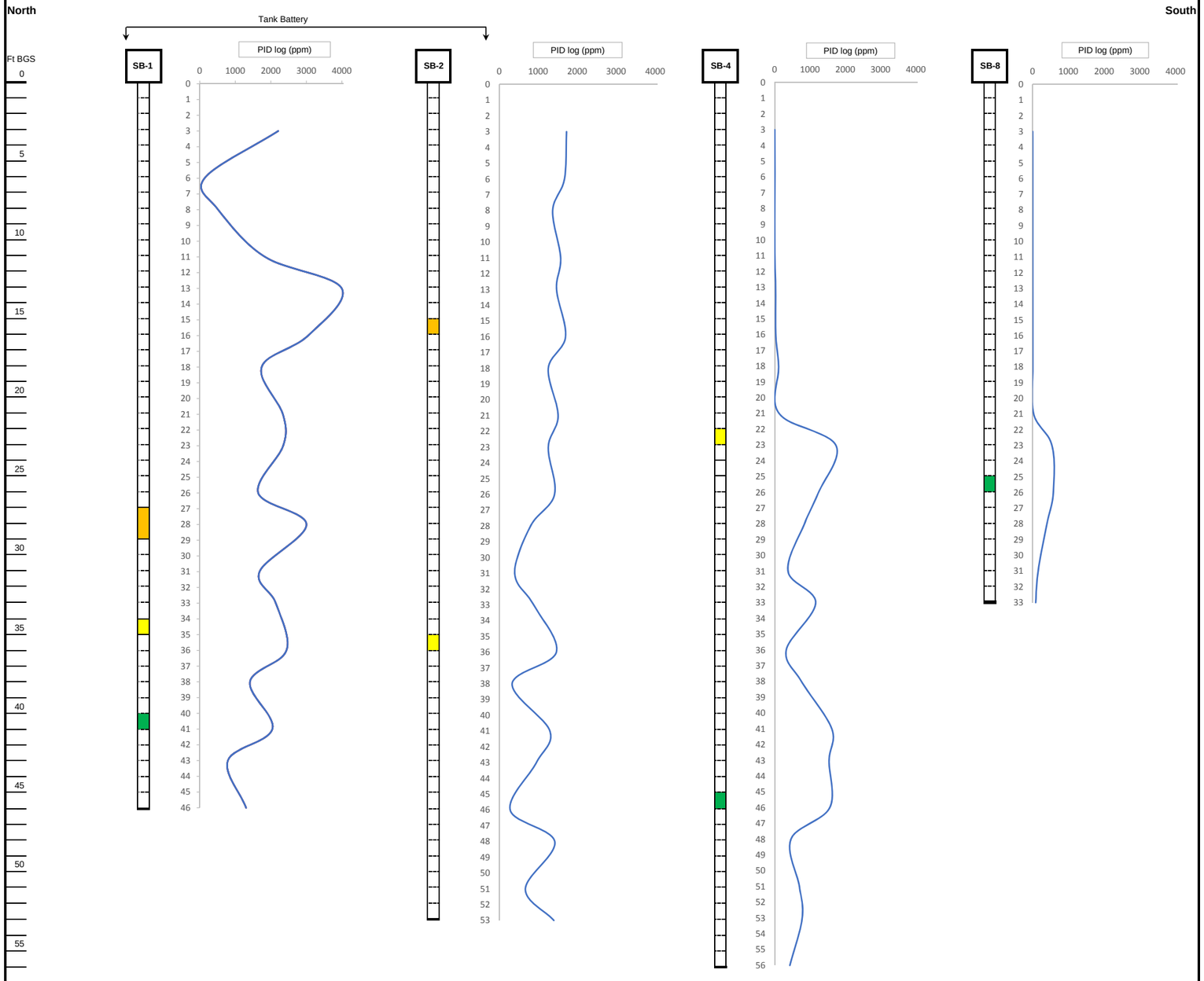
Fifield 5 No. 1 Release
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: ESRI
Vector Source: TE

- Sample Location (Rule Engineering)
- Proposed Sample Location
- Former Berm

Attachments

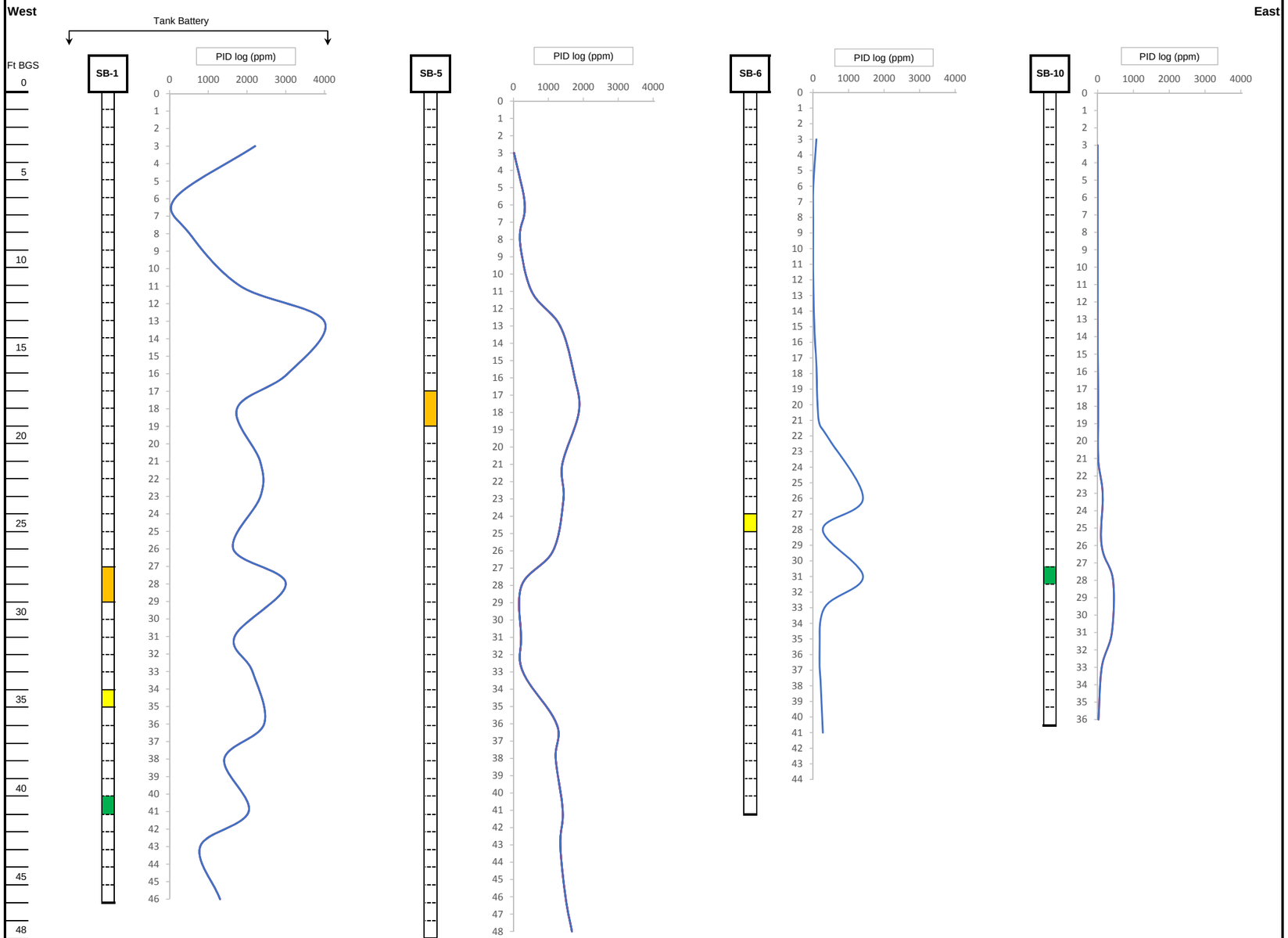
Exhibit A1. Cross-Sectional View of PID Readings North - South
Site Charactorization and Remedial Action Plan
Fifield 5 No. 1
San Juan County, New Mexico



Note: SB-3 not included due to no data

TIMBERWOLF ENVIRONMENTAL

Exhibit A2. Cross-Sectional View of PID Readings West - East
Site Charactorization and Remedial Action Plan
Fifield 5 No. 1
San Juan County, New Mexico



TIMBERWOLF ENVIRONMENTAL

Appendix

Table B. Soil Boring Field Screening and Laboratory Analytical Results Summary
ConocoPhillips
Fifield 5 #1
San Juan County, New Mexico

Sample Name	Date	Approximate Sample Depth (ft bgs)	Field Results	Laboratory Results									
			Field VOCs by PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylben-zene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH as GRO (mg/kg)	TPH as DRO (mg/kg)	TPH as MRO (mg/kg)	Total TPH (mg/kg)
NMOCD Action Level*			**100**	**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100****
SB-1	12/22/2017	2.5 - 3.5	**2,208**	--	--	--	--	--	--	--	--	--
		5 - 6	**134**	--	--	--	--	--	--	--	--	--
		7.5 - 8.5	**519**	--	--	--	--	--	--	--	--	--
		10 - 11	**1,835**	--	--	--	--	--	--	--	--	--
		12.5 - 13.5	**3,996**	--	--	--	--	--	--	--	--	--
		15 - 16	**3,050**	--	--	--	--	--	--	--	--	--
		17.5 - 18.5	**1,740**	--	--	--	--	--	--	--	--	--
		20 - 21	**2,340**	--	--	--	--	--	--	--	--	--
		22.5 - 23.5	**2,348**	--	--	--	--	--	--	--	--	--
		25 - 26	**1,645**	--	--	--	--	--	--	--	--	--
		27.5 - 28.5	**3,003**	3.1	53	9.8	150	**216**	2,500	710	<50	**3,210**
		30 - 31	**1,682**	--	--	--	--	--	--	--	--	--
		32.5 - 33.5	**2,141**	--	--	--	--	--	--	--	--	--
		35 - 36	**2,442**	0.36	6.9	1.5	20	29	440	93	<49	**533**
		37.5 - 38.5	**1,412**	--	--	--	--	--	--	--	--	--
		40 - 41	**2,044**	<0.024	0.064	<0.049	0.34	0.40	18	10	<48	28
		42.5 - 43.5	**790**	--	--	--	--	--	--	--	--	--
		45 - 46	**1,304**	--	--	--	--	--	--	--	--	--
SB-2	2/5/2018	2.5 - 3.5	**1,726**	--	--	--	--	--	--	--	--	--
		5 - 6	**1,673**	--	--	--	--	--	--	--	--	--
		7.5 - 8.5	**1,370**	--	--	--	--	--	--	--	--	--
		10 - 11	**1,575**	--	--	--	--	--	--	--	--	--
		12.5 - 13.5	**1,470**	--	--	--	--	--	--	--	--	--
		15 - 16	**1,701**	<0.11	<0.23	0.41	2.0	**2.4**	270	33	<48	**303**
		17.5 - 18.5	**1,258**	--	--	--	--	--	--	--	--	--
		20 - 21	**1,510**	--	--	--	--	--	--	--	--	--
		22.5 - 23.5	**1,257**	--	--	--	--	--	--	--	--	--
		25 - 26	**1,418**	--	--	--	--	--	--	--	--	--
		27.5 - 28.5	**801**	--	--	--	--	--	--	--	--	--
		30 - 31	**397**	--	--	--	--	--	--	--	--	--
		32.5 - 33.5	**885**	--	--	--	--	--	--	--	--	--
		35 - 36	**1,464**	0.25	2.7	0.55	7.3	10.8	200	32	<49	**232**
		37.5 - 38.5	**330**	--	--	--	--	--	--	--	--	--
		40 - 41	**1,300**	--	--	--	--	--	--	--	--	--
		42.5 - 43.5	**952**	--	--	--	--	--	--	--	--	--
	2/6/2018	45 - 46	**281**	--	--	--	--	--	--	--	--	--
		47.5 - 48.5	**1424**	--	--	--	--	--	--	--	--	--
		50 - 51	**670**	--	--	--	--	--	--	--	--	--
		52.5 - 53.5	**1,400+**	--	--	--	--	--	--	--	--	--
SB-3	2/6/2018	2.5 - 3.5	0.0	--	--	--	--	--	--	--	--	--
		5 - 6	0.8	--	--	--	--	--	--	--	--	--
		7.5 - 8.5	1.8	--	--	--	--	--	--	--	--	--
		10 - 11	0.3	--	--	--	--	--	--	--	--	--
		12.5 - 13.5	1.5	--	--	--	--	--	--	--	--	--
		15 - 16	0.5	--	--	--	--	--	--	--	--	--
		17.5 - 18.5	1.0	--	--	--	--	--	--	--	--	--
		20 - 21	0.9	--	--	--	--	--	--	--	--	--
		22.5 - 23.5	0.9	--	--	--	--	--	--	--	--	--
		25 - 26	1.2	--	--	--	--	--	--	--	--	--
		27.5 - 28.5	1.0	--	--	--	--	--	--	--	--	--
		30 - 31	1.0	--	--	--	--	--	--	--	--	--

Table B. Soil Boring Field Screening and Laboratory Analytical Results Summary
ConocoPhillips
Fifield 5 #1
San Juan County, New Mexico

Sample Name	Date	Approximate Sample Depth (ft bgs)	Field Results	Laboratory Results								
			Field VOCs by PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylben-zene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH as GRO (mg/kg)	TPH as DRO (mg/kg)	TPH as MRO (mg/kg)	Total TPH (mg/kg)
NMOCD Action Level*			**100**	**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100****
SB-4	2/6/2018	2.5 - 3.5	0.7	--	--	--	--	--	--	--	--	--
		5 - 6	3.0	--	--	--	--	--	--	--	--	--
		7.5 - 8.5	0.4	--	--	--	--	--	--	--	--	--
		10 - 11	0.6	--	--	--	--	--	--	--	--	--
		12.5 - 13.5	25.3	--	--	--	--	--	--	--	--	--
		15 - 16	29.6	--	--	--	--	--	--	--	--	--
		17.5 - 18.5	**111**	--	--	--	--	--	--	--	--	--
		20 - 21	**122**	--	--	--	--	--	--	--	--	--
		22.5 - 23.5	**1,731**	0.56	10	2.1	29	42	560	170	<49	**730**
		25 - 26	**1,240**	--	--	--	--	--	--	--	--	--
		27.5 - 28.5	**839**	--	--	--	--	--	--	--	--	--
		30 - 31	**375**	--	--	--	--	--	--	--	--	--
		32.5 - 33.5	**1,161**	--	--	--	--	--	--	--	--	--
		35 - 36	**326**	--	--	--	--	--	--	--	--	--
		37.5 - 38.5	**760**	--	--	--	--	--	--	--	--	--
		40 - 41	**1,618**	--	--	--	--	--	--	--	--	--
		42.5 - 43.5	**1,539**	--	--	--	--	--	--	--	--	--
		45 - 46	**1,559**	0.027	0.22	<0.037	0.26	0.51	11	<9.8	<49	11
		47.5 - 48.5	**458**	--	--	--	--	--	--	--	--	--
		50 - 51	**698**	--	--	--	--	--	--	--	--	--
		52.5 - 53.5	**779**	--	--	--	--	--	--	--	--	--
		55 - 56	**429**	--	--	--	--	--	--	--	--	--
SB-5	2/7/2018	2.5 - 3.5	19.8	--	--	--	--	--	--	--	--	--
		5 - 6	**326**	--	--	--	--	--	--	--	--	--
		7.5 - 8.5	**184**	--	--	--	--	--	--	--	--	--
		10 - 11	**521**	--	--	--	--	--	--	--	--	--
		12.5 - 13.5	**1,339**	--	--	--	--	--	--	--	--	--
		15 - 16	**1,756**	--	--	--	--	--	--	--	--	--
		17.5 - 18.5	**1,871**	<0.25	4.4	3.7	56	**64**	700	260	<43	**960**
		20 - 21	**1,398**	--	--	--	--	--	--	--	--	--
		22.5 - 23.5	**1,433**	--	--	--	--	--	--	--	--	--
		25 - 26	**1,136**	--	--	--	--	--	--	--	--	--
		27.5 - 28.5	**235**	--	--	--	--	--	--	--	--	--
		30 - 31	**220**	--	--	--	--	--	--	--	--	--
		32.5 - 33.5	**269**	--	--	--	--	--	--	--	--	--
		35 - 36	**1,237**	--	--	--	--	--	--	--	--	--
		37.5 - 38.5	**1,210**	--	--	--	--	--	--	--	--	--
		40 - 41	**1,412**	--	--	--	--	--	--	--	--	--
		42.5 - 43.5	**1,343**	--	--	--	--	--	--	--	--	--
		45 - 46	**1,490**	--	--	--	--	--	--	--	--	--
		47.5 - 48.5	**1,675**	--	--	--	--	--	--	--	--	--

Table B. Soil Boring Field Screening and Laboratory Analytical Results Summary
ConocoPhillips
Fifield 5 #1
San Juan County, New Mexico

Sample Name	Date	Approximate Sample Depth (ft bgs)	Field Results	Laboratory Results								
			Field VOCs by PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylben-zene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH as GRO (mg/kg)	TPH as DRO (mg/kg)	TPH as MRO (mg/kg)	Total TPH (mg/kg)
NMOCD Action Level*			100	10	NE	NE	NE	50	NE	NE	NE	100**
SB-6	2/7/2018	2.5 - 3.5	92.3	--	--	--	--	--	--	--	--	--
		5 - 6	5.2	--	--	--	--	--	--	--	--	--
		7.5 - 8.5	3.0	--	--	--	--	--	--	--	--	--
		10 - 11	1.5	--	--	--	--	--	--	--	--	--
		12.5 - 13.5	10.9	--	--	--	--	--	--	--	--	--
		15 - 16	52.5	--	--	--	--	--	--	--	--	--
		17.5 - 18.5	86.5	--	--	--	--	--	--	--	--	--
		20 - 21	**157**	--	--	--	--	--	--	--	--	--
		22.5 - 23.5	**392**	--	--	--	--	--	--	--	--	--
		25 - 26	**1,405**	<0.12	5.3	1.5	29	36	390	160	<49	**550**
		27.5 - 28.5	**273**	--	--	--	--	--	--	--	--	--
		30 - 31	**1,406**	--	--	--	--	--	--	--	--	--
		32.5 - 33.5	**321**	--	--	--	--	--	--	--	--	--
		35 - 36	**184**	--	--	--	--	--	--	--	--	--
		37.5 - 38.5	**217**	--	--	--	--	--	--	--	--	--
		40 - 41	**275**	--	--	--	--	--	--	--	--	--
SB-7	2/7/2018	2.5 - 3.5	2.7	--	--	--	--	--	--	--	--	--
		5 - 6	5.7	--	--	--	--	--	--	--	--	--
		7.5 - 8.5	22.3	--	--	--	--	--	--	--	--	--
		10 - 11	**183**	--	--	--	--	--	--	--	--	--
		12.5 - 13.5	**316**	--	--	--	--	--	--	--	--	--
		15 - 16	**1,652**	<0.023	<0.047	<0.047	0.51	0.51	32	66	<45	98
		17.5 - 18.5	**1,527**	--	--	--	--	--	--	--	--	--
		20 - 21	**1,643**	--	--	--	--	--	--	--	--	--
		22.5 - 23.5	**1,592**	--	--	--	--	--	--	--	--	--
		25 - 26	**1,235**	--	--	--	--	--	--	--	--	--
		27.5 - 28.5	**911**	--	--	--	--	--	--	--	--	--
		30 - 31	**1,355**	--	--	--	--	--	--	--	--	--
		32.5 - 33.5	**165**	--	--	--	--	--	--	--	--	--
		35 - 36	**557**	--	--	--	--	--	--	--	--	--
		37.5 - 38.5	**661**	--	--	--	--	--	--	--	--	--
		40 - 41	**290**	--	--	--	--	--	--	--	--	--
SB-8	2/8/2018	2.5 - 3.5	0.0	--	--	--	--	--	--	--	--	--
		5 - 6	2.9	--	--	--	--	--	--	--	--	--
		7.5 - 8.5	0.9	--	--	--	--	--	--	--	--	--
		10 - 11	0.8	--	--	--	--	--	--	--	--	--
		12.5 - 13.5	3.7	--	--	--	--	--	--	--	--	--
		15 - 16	1.7	--	--	--	--	--	--	--	--	--
		17.5 - 18.5	3.6	--	--	--	--	--	--	--	--	--
		20 - 21	29.7	--	--	--	--	--	--	--	--	--
		22.5 - 23.5	**543**	--	--	--	--	--	--	--	--	--
		25 - 26	**579**	0.028	0.37	<0.046	1.1	1.1	5.5	<9.5	<48	5.5
		27.5 - 28.5	**398**	--	--	--	--	--	--	--	--	--
		30 - 31	**152**	--	--	--	--	--	--	--	--	--
		32.5 - 33.5	85.4	--	--	--	--	--	--	--	--	--

Table B. Soil Boring Field Screening and Laboratory Analytical Results Summary
ConocoPhillips
Fifield 5 #1
San Juan County, New Mexico

Sample Name	Date	Approximate Sample Depth (ft bgs)	Field Results	Laboratory Results									
			Field VOCs by PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylben-zene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH as GRO (mg/kg)	TPH as DRO (mg/kg)	TPH as MRO (mg/kg)	Total TPH (mg/kg)
NMOCD Action Level*			**100**	**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100****
SB-9	2/8/2018	2.5 - 3.5	0.1	--	--	--	--	--	--	--	--	--
		5 - 6	1.0	--	--	--	--	--	--	--	--	--
		7.5 - 8.5	2.1	--	--	--	--	--	--	--	--	--
		10 - 11	2.0	--	--	--	--	--	--	--	--	--
		12.5 - 13.5	22.2	--	--	--	--	--	--	--	--	--
		15 - 16	39.1	--	--	--	--	--	--	--	--	--
		17.5 - 18.5	60.8	--	--	--	--	--	--	--	--	--
		20 - 21	67.9	--	--	--	--	--	--	--	--	--
		22.5 - 23.5	**266**	--	--	--	--	--	--	--	--	--
		25 - 26	**359**	--	--	--	--	--	--	--	--	--
		27.5 - 28.5	**399**	<0.025	<0.049	<0..049	<0.098	ND	<4.9	<9.8	<49	ND
		30 - 31	**184**	--	--	--	--	--	--	--	--	--
		32.5 - 33.5	**104**	--	--	--	--	--	--	--	--	--
		35 - 36	40.6	--	--	--	--	--	--	--	--	--
SB-10	2/8/2018	2.5 - 3.5	0.3	--	--	--	--	--	--	--	--	--
		5 - 6	0.7	--	--	--	--	--	--	--	--	--
		7.5 - 8.5	0.6	--	--	--	--	--	--	--	--	--
		10 - 11	1.2	--	--	--	--	--	--	--	--	--
		12.5 - 13.5	1.5	--	--	--	--	--	--	--	--	--
		15 - 16	2.4	--	--	--	--	--	--	--	--	--
		17.5 - 18.5	15.4	--	--	--	--	--	--	--	--	--
		20 - 21	13.6	--	--	--	--	--	--	--	--	--
		22.5 - 23.5	**139**	--	--	--	--	--	--	--	--	--
		25 - 26	**109**	--	--	--	--	--	--	--	--	--
		27.5 - 28.5	**431**	0.030	0.13	<0.049	0.17	0.33	<4.9	<9.5	<48	ND
		30 - 31	**397**	--	--	--	--	--	--	--	--	--
		32.5 - 33.5	**114**	--	--	--	--	--	--	--	--	--
		35 - 36	23.4	--	--	--	--	--	--	--	--	--

Notes:
VOCs - volatile organic compounds
PID - photoionization detector
ft bgs - feet below grade surface
ppm - parts per million
mg/kg - milligrams per kilogram
NE - not-established
TPH - total petroleum hydrocarbons
GRO - gasoline range organics
DRO - diesel range organics
MRO - mineral oil range organics
NMOCD - New Mexico Oil Conservation Division
*Based on the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases (August 1993)*
**Based on a site ranking of 20.