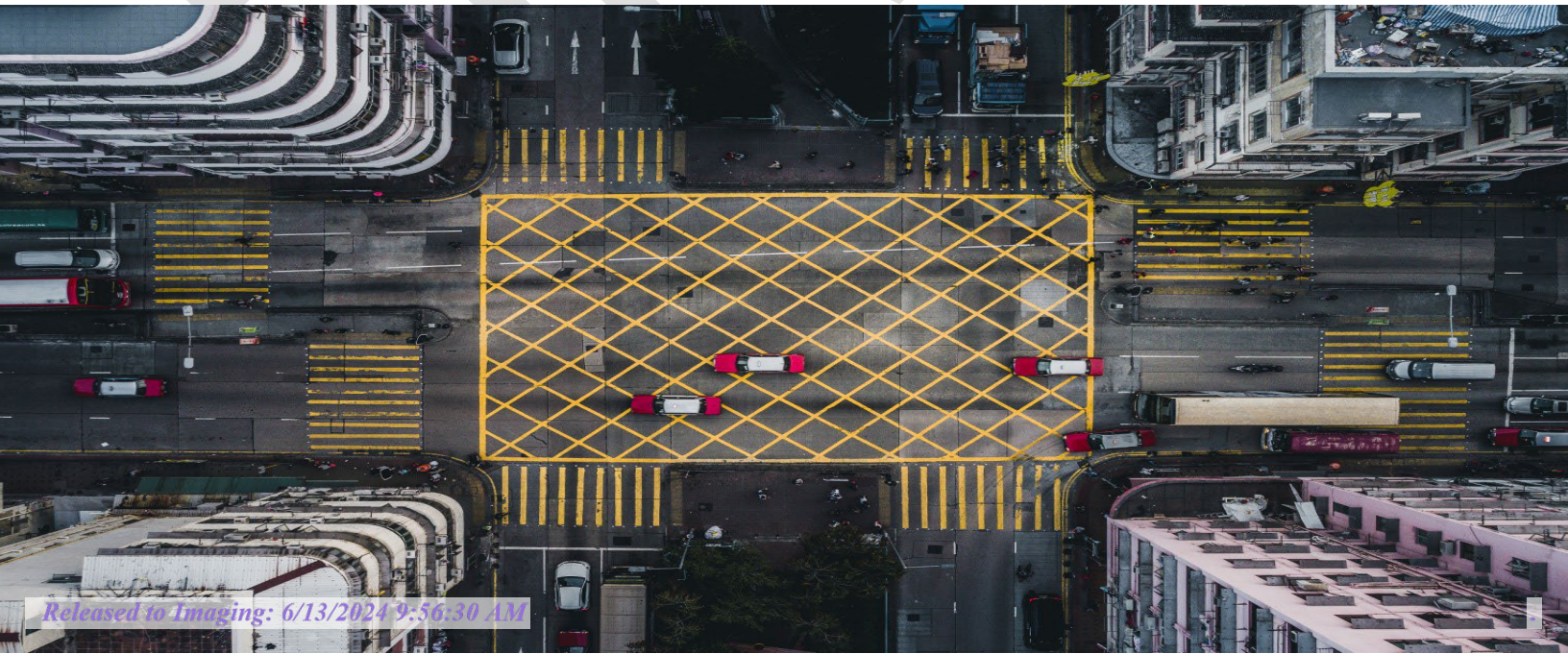
Chevron Brininstool Closure Report

Brininstool CTB
Incident ID: nAPP2319355921
B-S24-T23S-R33E
Eddy County, New Mexico

Chevron North America Exploration and Production Company

February 28, 2024

→ The Power of Commitment



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1. Introduction

GHD Services Inc. (GHD), on behalf of Chevron U.S.A., Inc. (Chevron), submits this Site Closure Report to the New Mexico Oil Conservation Division (NMOCD) District 2 Office. This Report provides documentation of assessment and remediation activities that were conducted in the affected area at the Chevron Brininstool Release Site (Site). The Site is in Unit Letter B Section 24 of Township 23 South and Range 33 East in Lea County, New Mexico. According to the spill notification and C-141, the GPS coordinates for the release site were 32.29688º N Latitude and 103.52252º W Longitude. The surface owner of the land where the release occurred is private. Figure 1 depicts the Site location. Other site details are provided in Appendix A.

1.1 Scope and Limitations

This report: has been prepared by GHD for Chevron North America Exploration and Production Company and may only be used and relied on by Chevron North America Exploration and Production Company for the purpose agreed between GHD and Chevron North America Exploration and Production Company as set out in this report.

GHD otherwise disclaims responsibility to any person other than Chevron North America Exploration and Production Company arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

Accessibility of documents

If this report is required to be accessible in any other format, this can be provided by GHD upon request and at an additional cost if necessary.

2. Background Information

A C-141 Release Notification for this release was submitted to the NMOCD on July 9, 2023, indicating the GPS coordinates to be 32.29688, -103.52252. The initial site assessment and Arc GIS mapping indicated the impacted area GPS coordinates to be 32.29689, -103.53839. The C-141 stated that 17.243 barrels (bbls) of produced water was spilled on an active production pad. The release was caused by failure of a 1/2” nipple connected to a valve leading from a three-phase separator unit. Soils within the active production area were noted to be darker in coloration from moisture and surrounded by a ring of white, indicating the spill footprint.

The release falls under the jurisdiction of the NMOCD District 2 Office in Artesia, New Mexico. The NMOCD assigned the release with Incident Number nAPP2319355921. The Release Notification and Closure portions of Form C-141 are included in Appendix B.

3. Site Characterization and Closure Criteria

GHD characterized the Site according to Closure Criteria for Soils Impacted by a Release, from New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 29, Section 12 (NMAC 19.15.29.12). Research of the New Mexico State Engineers Office indicated that depth to Groundwater is 330 feet below ground surface (ft. bgs). The Point of Diversion (POD) is referenced in Appendix A.

According to the soil survey provided by the United States Department of Agriculture National Resources Conservation Services, the soil in this area is made up of Pyote and Maljamar fine sands. The parent material is composed of Sandy eolian deposits derived from sedimentary rock. This area is very well drained with a negligible run-off class. This soil is non-saline to very slightly saline (0.0 to 2.0 millimhos per centimeter (mmhos/cm). The soil survey is attached in Appendix A.

No other receptors (playas, wetlands, waterways, lake beds or ordinance boundaries) were located within each specific boundaries or distance from the Site. According to the Site characterization evaluation and 19.15.29.12.C(4), the Site is located within an area with depth to water (DTW) greater than 50 feet bgs and meets the closure criteria for DTW greater than 50 feet in Table 1 in NMAC 19.15.29.12. The Site characterization documentation (Karst Potential, Points of Diversion [POD] Map, POD Well Logs, Significant Water Course, FEMA, and Wetlands maps) are provided in Appendix A. Research of site soil characterization from the soil closure criteria are listed below:

Table 1 General Site Characterization and Groundwater

Site Characterization	Average Groundwater Depth (ft)
>300 Feet from a Significant Watercourse	234 (ft)

Table 2 Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29.12)

Regulatory Standard	BTEX	Benzene	TPH (GRO+DRO+MRO)	TPH (GRO+MRO)	Chloride
19.15.29.13 Restoration, Reclamation and Re-Vegetation (Impacted Area 0-4 Feet)	50 mg/kg	10 mg/kg	---	100 mg/kg	600 mg/kg
19.15.29.12 NMAC Table I Closure Criteria for Soils Impacted by a Release	50 mg/kg	10 mg/kg	1,000 mg/kg	2,500 mg/kg	10 mg/kg
Notes: mg/kg = milligram per kilogram --- = not defined					

4. Soil Delineation Assessment Summary and Findings

An initial limited soil assessment was performed by GHD in August 2023, post spill response activities. On August 7, 2023, GHD collected six soil samples from four hand-augured boreholes in the impacted area from depths ranging from 1-2 ft. bgs. A Site map indicating the approximate area of impact and sample locations can be referenced in Figure 2. The scope of sampling was limited by Chevron policies limiting depth near the equipment, and by auger refusal at 1' depth in two of the augured locations. All samples were submitted to Hall Laboratories (Hall) in Albuquerque, New Mexico, and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA SW846

Method 8021B, total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) SW846 Method 8015B M/D Modified, and chloride by EPA Method 300.

Soil analytical results indicated concentrations of chlorides were detected in five samples in exceedance of the standard in Table I, Closure Criteria for Soils Impacted by a Release, from New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 29, Section 12 (NMAC 19.15.29.12) (NMAC Table 1 Closure Criteria, referenced in Table 2 site characterization) for depth to water greater than or equal to 100 ft bgs. The complete laboratory report is provided in Appendix D and summarized in Table 1.

GHD and Standard Safety (SS) conducted soil excavation activities between October 16, 2023, and November 22, 2023. Field titration for chloride was utilized to screen soil and guided the excavation activities. The impacted area was excavated to a total depth of four ft. bgs.

From October 23, 2023 through November 1, 2023, a total of 10 bottom hole and 7 sidewall composite confirmation soil samples were collected as confirmation samples in accordance with NMAC 19.15.29. All composite confirmation soil samples represented areas no greater than 200 square feet. Sample locations with samples that exceeded Table I Closure Criteria were also further excavated and resampled. Results from the confirmation soil samples were determined to be below applicable Table 1 Closure Criteria except for sample SW-5. Sample SW-5 could not be safely excavated horizontally due to the presence of oil and gas production equipment (3-Phase Separator). To vertically delineate the area of SW-5, one hand-augured soil boring was advanced between sample locations S-1 and S-7, to a depth of 5 ft. bgs, (S1-HA5). A test trench was also advanced in the areas of S3, S4, S5, and S6 (S4-TT 6') to delineate the area. In addition to the vertical delineation sampling that was conducted around SW-5 and the production equipment, two surface soil samples (0-1 ft. bgs) were collected (TPS-N and TPS-S) to confirm concentrations that would be left in place due to infrastructure stability and safety issues. Due to the safety issues, the area was only hand scraped to remove surficial staining.

Soil samples were placed in laboratory-provided containers, which were immediately labelled, sealed, and stored/transported in a cooler containing ice to a laboratory certified by the National Environmental Laboratory Program (NELAP) for analysis. Samples were transported via Chain-of-Custody to Hall Laboratories in Albuquerque, New Mexico. All soil samples were analyzed for BTEX by EPA Method 8021B, TPH by EPA Method 8015B, and Chlorides by EPA Method 300. The complete laboratory report is provided in Appendix D and summarized in Table 1. Sample locations are presented in Figure 3.

Waste management activities were performed in coordination with Chevron directives. GHD obtained regulatory approval via the successful processing of Form C-138 Request for Approval to Accept Solid Waste. The waste was approved for acceptance at the OCD-permitted (WM-1-035), Lea Land, LLC facility located at MM64, Highway 62/180 East, Carlsbad, New Mexico, 88220. Approximately 252.68 tons of impacted soil was removed from the remedial excavation and disposed of. The approved C-138 and waste manifests are available upon request but are not attached due to the size of the file. Sampling notifications were submitted to the NMOCD on October 19, 2023, and are included as Appendix B.

The excavation was backfilled with clean, virgin soil (sand and caliche) transported to the Site from a locally sourced pit. The excavated area around the underground electrical lines were backfilled with sand to prevent impediment to the lines. The remaining excavation was backfilled with clean caliche, compacted, and restored to grade.

5. Closure Deferral Request

Site characterization, soil delineation, and remediation activities for Incident nAPP2319355921 have been performed in accordance with applicable NMOCD guidance and regulations. All areas of the release have been remediated to applicable Table 1 Closure Criteria except for the immediate area around on-Site oil and gas production equipment (See Figure 3). The area immediately under the 3-phase separator has not been remediated; however, a surface to one foot scrape was hand dug out around the separator. Based upon supporting documentation provided in this report, GHD, on behalf of Chevron, respectfully request deferral.

Due to safety concerns, infrastructure needed for production activity, and Chevron directives, GHD is requesting a deferral of the area immediately under the 3-phase separator to a point in time that the facility is either decommissioned or plug and abandoned.

If you have any questions or comments concerning this Site Closure Report, please do not hesitate to contact our Artesia office at (575) 616-3315.

Regards,

Liam Giersdorf
Graduate Scientist

(575) 703-3758
Liam.Giersdorf@GHD.com

Rebecca Pons
Senior Program Manager

(575) 441-0980
Rebecca.pons@ghd.com

Table 1

Point of Diversion Soil Survey

				Benzene	Toluene	Ethylbenzene	Xylenes (total)	Total BTEX	TPH (C6-C10) GRO	TPH (>C10-C28) DRO	TPH GRO+DRO	TPH (>C28-C36) ORO	Total TPH	Chloride
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NMAC Table I Closure Criteria <50				**10**	**---**	**---**	**---**	**50**	**---**	**---**	**---**	**---**	**100**	**600**
NMAC Table I Closure Criteria 51-100				**10**	**---**	**---**	**---**	**50**	**---**	**---**	**1000**	**---**	**2500**	**10000**
NMAC Table I Closure Criteria >100				**10**	**---**	**---**	**---**	**50**	**---**	**---**	**1000**	**---**	**2500**	**20000**
Location	**Sample ID**	**Date**	**Depth**											
Test Pit Initial Assessment Samples														
TP1	TP1@0-1'	8/7/2023	0-1'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**4800**
TP1	TP1@2'	8/7/2023	2'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**5500**
TP2	TP2@1'	8/7/2023	1'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**4200**
TP3	TP3@1'	8/7/2023	1'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**1500**
TP3	TP3@2'	8/7/2023	2'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**400**
TP4	TP4@1'	8/7/2023	1'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**9800**
Confirmation Sampling Bottom Hole Samples														
S-1	S-1	10/23/2023	4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**2400**
S-2	S-2	10/23/2023	4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**510**
S-3	S-3	10/23/2023	4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**980**
S-4	S-4	11/1/2023	4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**810**
S-5	S-5	11/1/2023	4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	<20
S-6	S-6	10/23/2023	4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**1100**
S-7	S-7	10/23/2023	4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**990**
S-8	S-8	11/1/2023	4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**99**
Confirmation Sampling Sidewall Samples														
~~SW-1~~	~~SW-1~~	~~10/23/2023~~	~~0-4'~~	~~<0.025~~	~~<0.05~~	~~<0.05~~	~~<0.1~~	~~<0.225~~	~~<5~~	~~<9.9~~	~~<14.9~~	~~<50~~	~~<64.9~~	~~**640**~~
SW-1	SW-1A	11/14/2023	0-4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**400**
SW-2	SW-2	10/23/2023	0-4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**280**
SW-3	SW-3	11/1/2023	0-4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**110**
SW-4	SW-4	11/1/2023	0-4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	<20
SW-5	SW-5	11/1/2023	0-4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**920**
SW-6	SW-6	11/1/2023	0-4'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**570**
Confirmation Sampling Hand Auger & Test Trench Samples														
S1	S1-HA5	10/24/2023	5'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**360**
S-4	TT 6'	11/1/2023	6'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**82**
Confirmation Sampling Surface Samples														
TPS-N	TPS-N	10/24/2023	0'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	320	320	270	590	**1600**
TPS-S	TPS-S	10/24/2023	0'	<0.025	<0.05	<0.05	<0.1	<0.225	<5	<9.9	<14.9	<50	<64.9	**4800**

Notes:

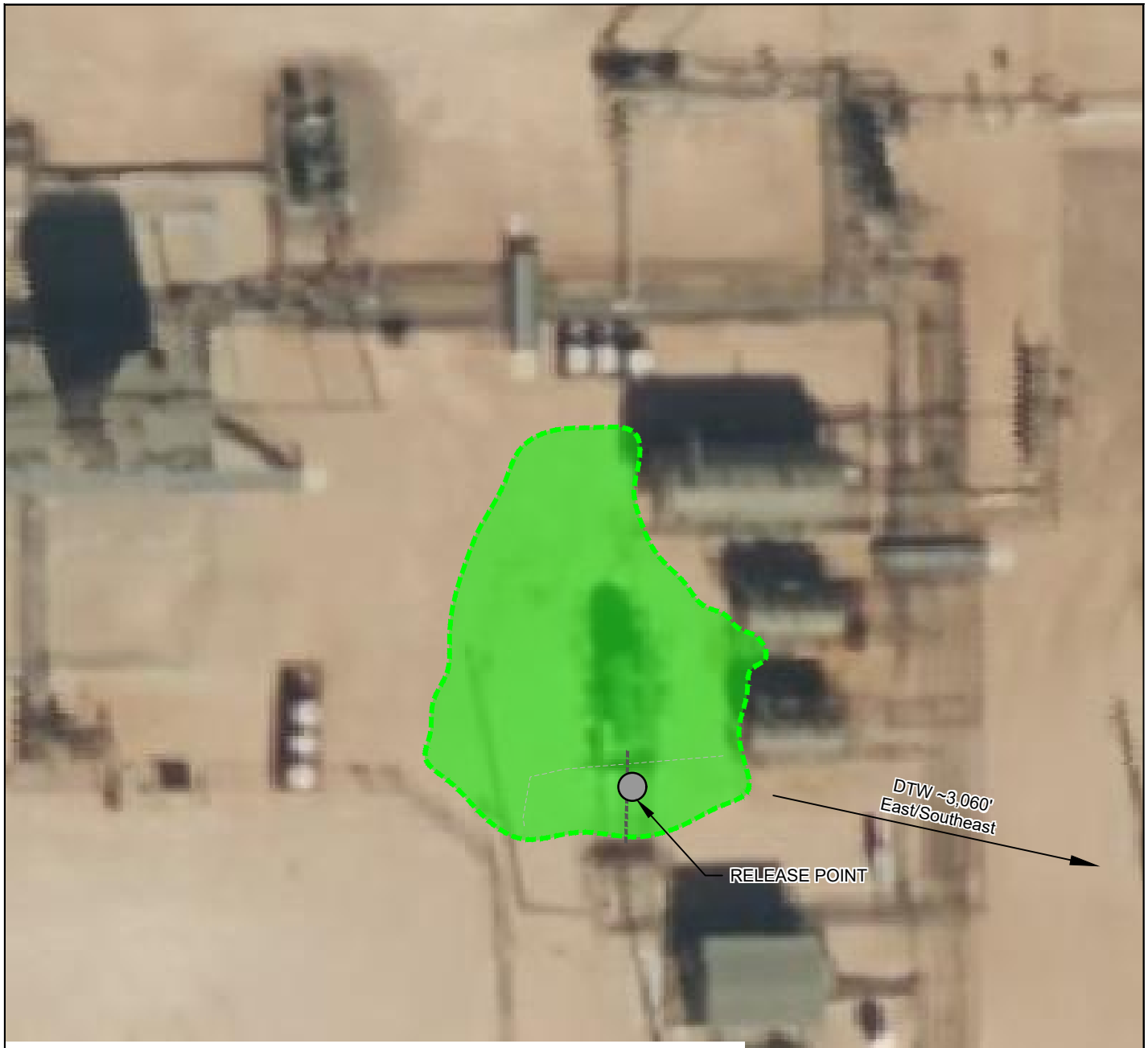
1. Values reported in mg/kg
2. < = Value Less than Reporting Limit (RL)
3. Bold Indicates Analyte Detected
4. BTEX analyses by EPA Method SW 8021B.
5. TPH analyses by EPA Method SW 8015 Mod.
6. GRO/DRO/MRO = Gasoline/Diesel/Motor Oil
7. Yellow shaded cells indicate analytical samples that exceed the NMAC 19.15.29.12 Table 1 Closure Criteria for the site.
8. Peach shaded cells indicate analytical samples that exceed the NMAC 19.15.29.13 Table 1 Closure Criteria for the site (Surface to 4 Feet Below Grade).

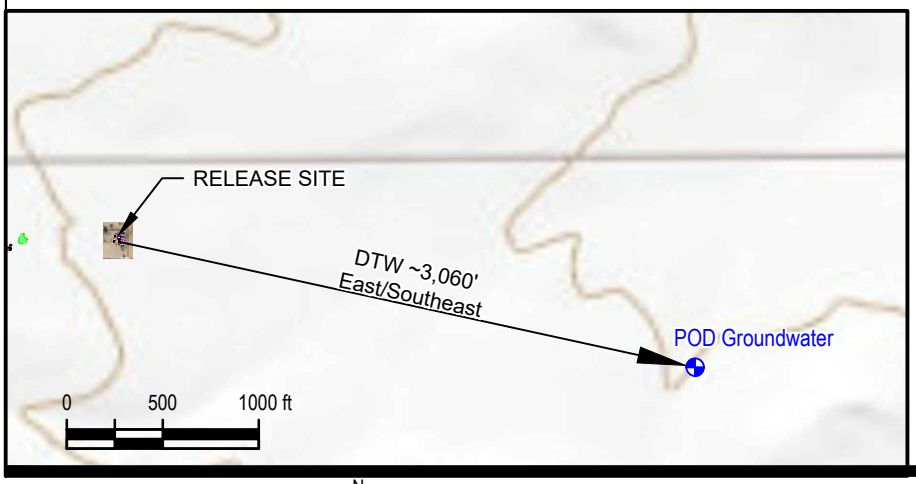
~~SW-1~~ Sample Point Excavated

Table 2

Brininstool Disposal

Material In/Out Recap					
Date	**Trucks/Loads**	**Yards Out**	**280**	**Yards In**	**260**
10/17/2023	1 Burton Hydrovac 1 Load	4		0	
10/18/2023	1 Burton Hydrovac 2 Loads	8		0	
10/19/2023	1 Burton Hydrovac 2 Loads	8		0	
11/20/2023	6 Bosses Belly's 12 Loads	220		240	
11/22/2023	2 Bosses Belly's 3 Loads	40		20	





LEGEND

GAS LINE TO 3-PHASE SEPARATOR

UNDERGROUND ELECTRIC UTILITIES

0 10 20 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

CHEVRON ENVIRONMENTAL MANAGEMENT CO
LEA COUNTY, NEW MEXICO
BRININSTOOL TANK BATTERY

Project No. **12620035**
Date **February 2024**

SITE MAP

FIGURE 1

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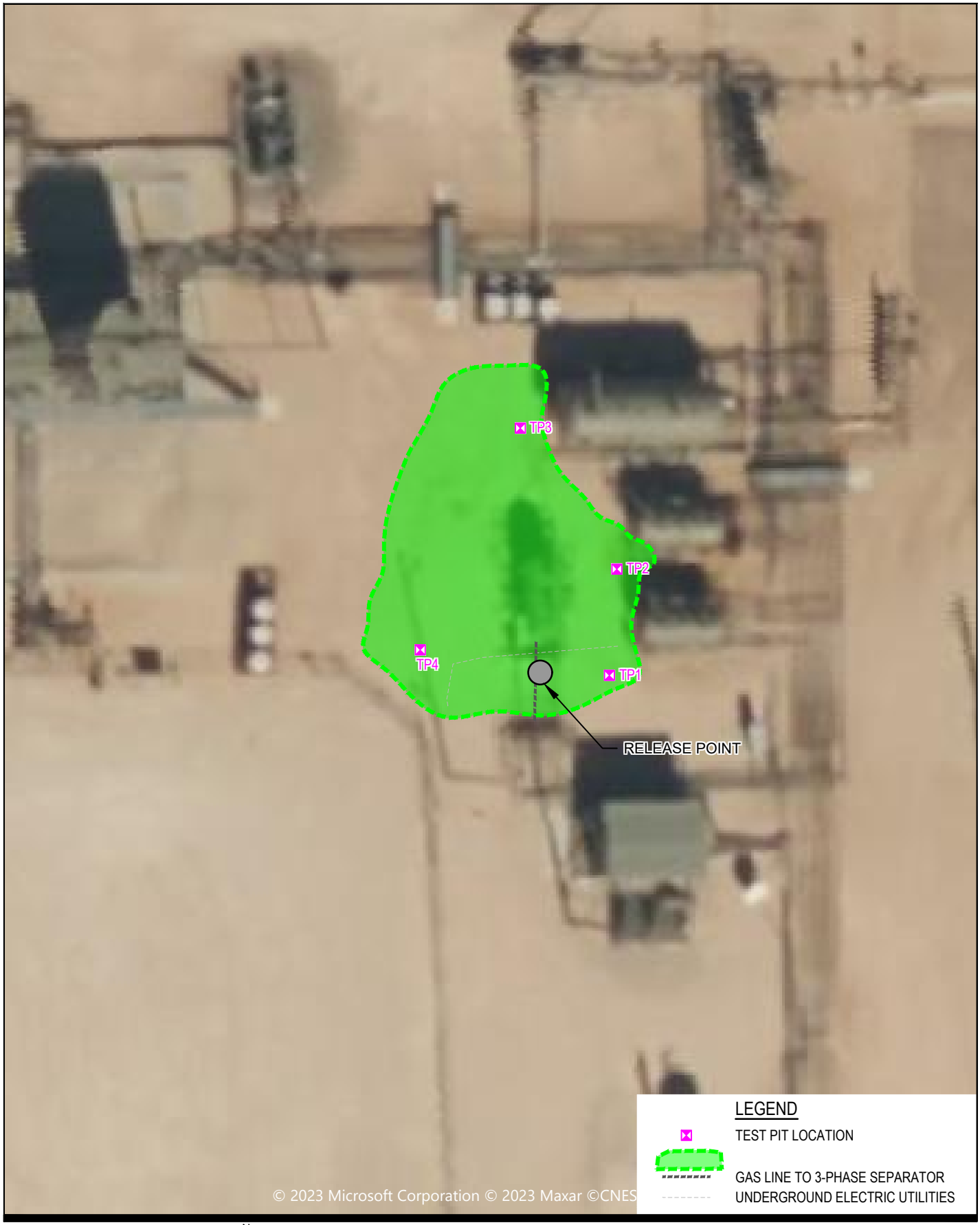

0 10 20 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

CHEVRON ENVIRONMENTAL MANAGEMENT CO
LEA COUNTY, NEW MEXICO
BRININSTOOL TANK BATTERY

Project No. **12620035**
Date **February 2024**

INITIAL SITE ASSESSMENT MAP

FIGURE 2

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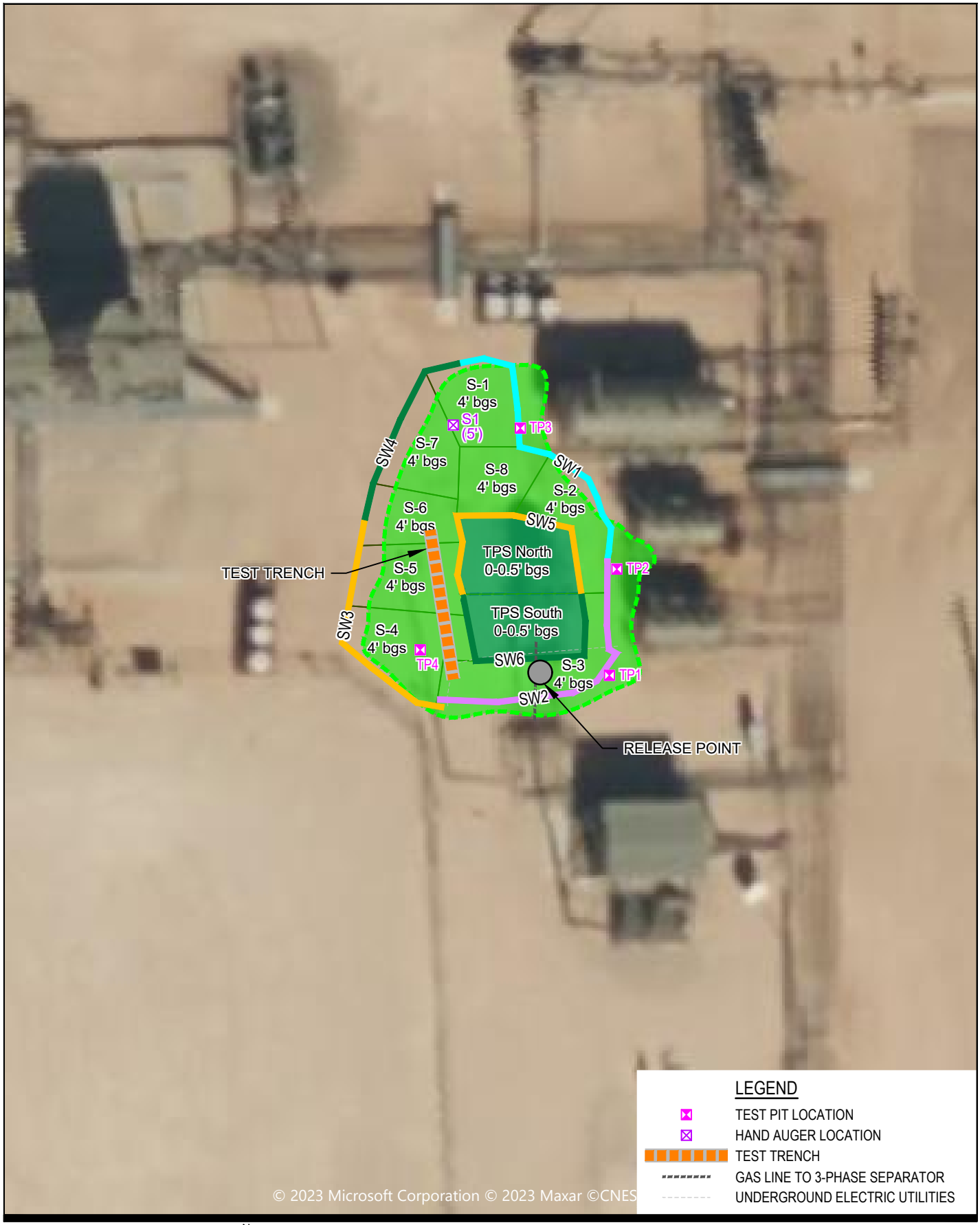

0 10 20 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

CHEVRON ENVIRONMENTAL MANAGEMENT CO
LEA COUNTY, NEW MEXICO
BRININSTOOL TANK BATTERY

CONFIRMATION SAMPLE
LOCATIONS MAP

Project No. **12620035**
Date **February 2024**

FIGURE 3

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Appendices

Appendix A

Point of Diversion Soil Survey

National Flood Hazard Layer FIRMette

FEMA

103°32'37"W 32°18'4"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

103°32'W 32°17'33"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

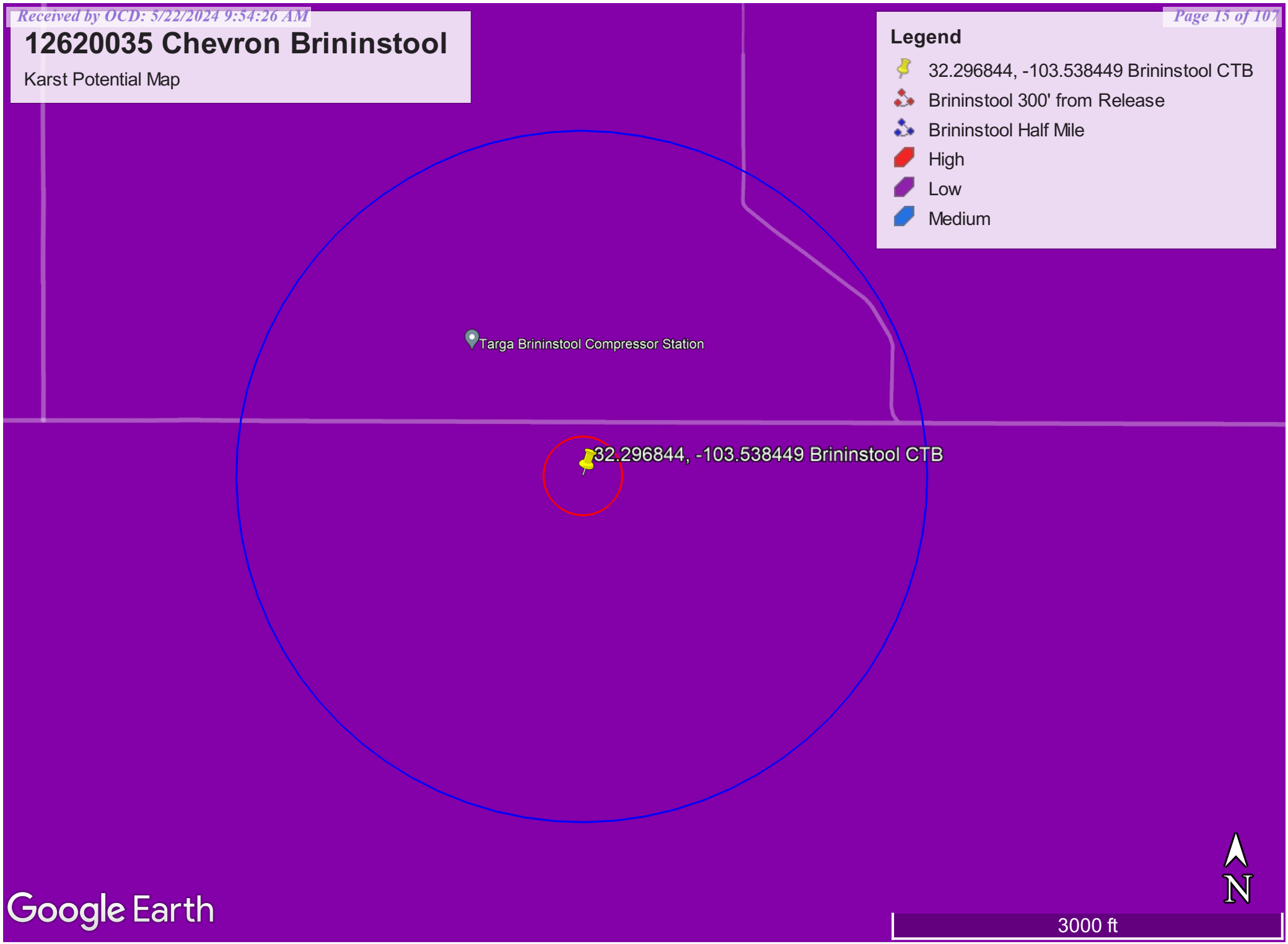
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/8/2023 at 10:34 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

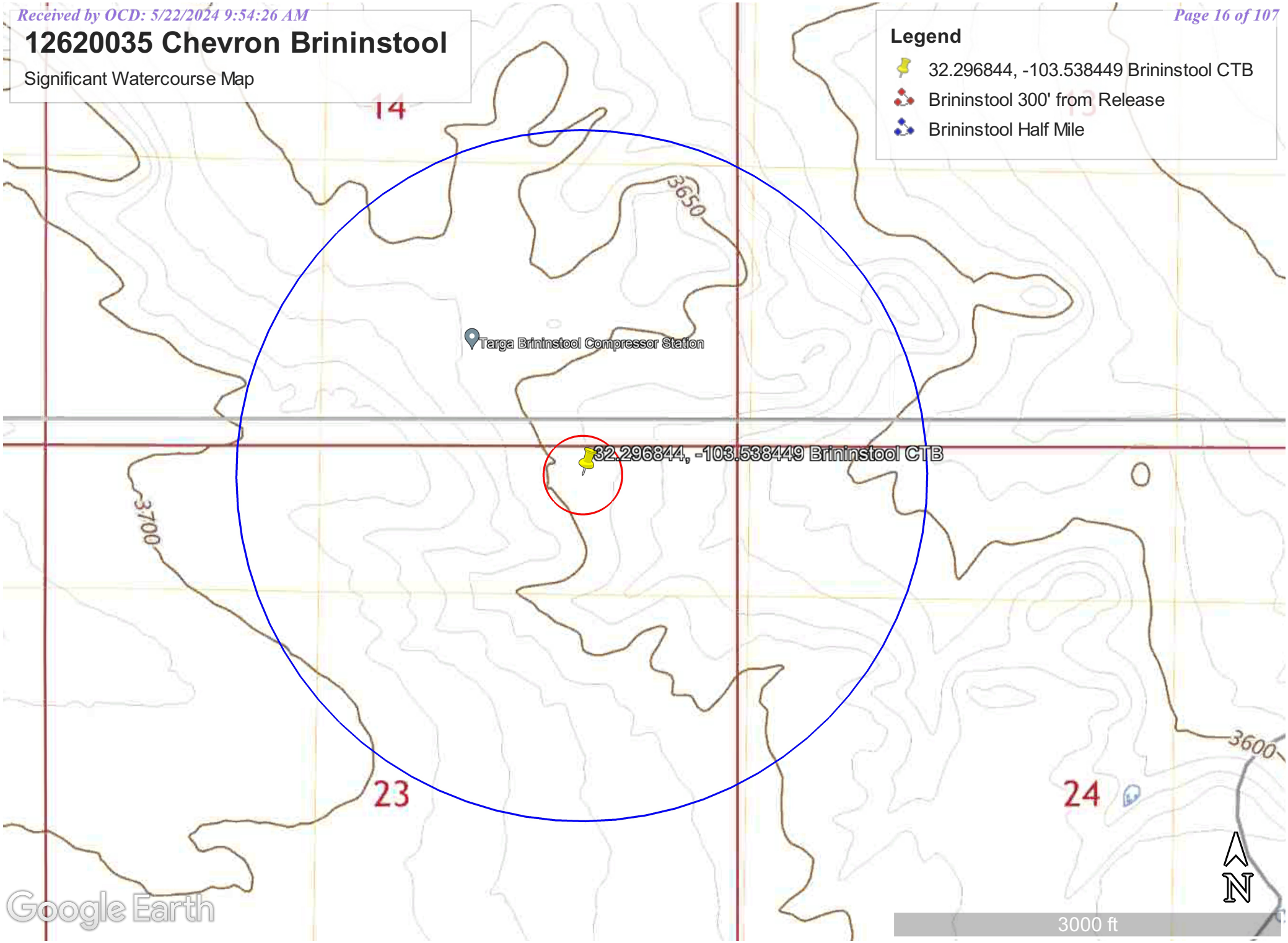
12620035 Chevron Brininstool

Karst Potential Map



12620035 Chevron Brininstool

Significant Watercourse Map



U.S. Fish and Wildlife Service
National Wetlands Inventory

Brininstool Wetlands Map

August 8, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 04353 POD1		CUB	ED	4	2	2	24	23S	33E	639474	3574098	415	603	330	273
C 02282		CUB	LE	3	1	1	25	23S	33E	638098	3572436*	2122	325	225	100
C 02283		CUB	LE	4	2	2	26	23S	33E	637896	3572431*	2230	325	225	100
CP 01886 POD1		CP	LE	4	1	4	07	23S	34E	640646	3576545	2718			
C 03582 POD1		C	LE	4	1	1	14	23S	33E	636583	3575666	2873	590		
C 02284		CUB	LE	4	2	4	26	23S	33E	637907	3571626*	2933	325	225	100
C 04667 POD1		CUB	LE	3	4	3	20	23S	34E	641770	3572915	2998			
CP 00556 POD1		CP	LE	4	4	3	08	23S	34E	641762	3576206	3265	497	255	242
C 04664 POD1		CUB	LE	4	1	4	15	23S	33E	635784	3574818	3367	55		
CP 01130 POD2		CP	LE	2	1	2	07	23S	34E	640674	3577549	3604	27		
CP 01130 POD1		CP	LE	2	1	2	07	23S	34E	640662	3577558	3608	27		
CP 00278 POD1		CP	LE	1	3	4	06	23S	34E	640413	3577897	3825	640		
CP 00872 POD1		CP	LE	1	1	1	08	23S	34E	641225	3577504*	3837	494	305	189
CP 01075 POD1		CP	LE	1	1	1	08	23S	34E	641295	3577544	3910	430	20	410
CP 01502 POD1		CP	LE	4	3	3	05	23S	34E	641316	3577635	3997	648	200	448
CP 01971 POD1		CP	LE	1	1	3	06	23S	34E	639700	3578272	4015			
CP 01502 POD2		CP	LE	4	3	3	05	23S	34E	642074	3577676	4491	680	300	380
CP 01730 POD1		CP	LE	2	2	1	16	23S	34E	643549	3575824	4692	594	200	394
CP 01760 POD1		CP	LE	3	1	2	16	23S	34E	643627	3575897	4790	767	290	477

Average Depth to Water: **234 feet**
Minimum Depth: **20 feet**
Maximum Depth: **330 feet**

Record Count: 19

UTMNAD83 Radius Search (in meters):

Easting (X): 639111 **Northing (Y):** 3574301 **Radius:** 5000

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	C 04353 POD1	4	2	2	24	23S	33E	639474	3574098

Driller License:	1737	**Driller Company:**	SHADE TREE DRILLING		
Driller Name:	JUSTIN MULLINS				
Drill Start Date:	11/04/2019	**Drill Finish Date:**	11/13/2019	**Plug Date:**	
Log File Date:	01/29/2020	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	30 GPM
Casing Size:	6.00	**Depth Well:**	603 feet	**Depth Water:**	330 feet

Water Bearing Stratifications:	Top	Bottom	Description
	330	344	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	301	601

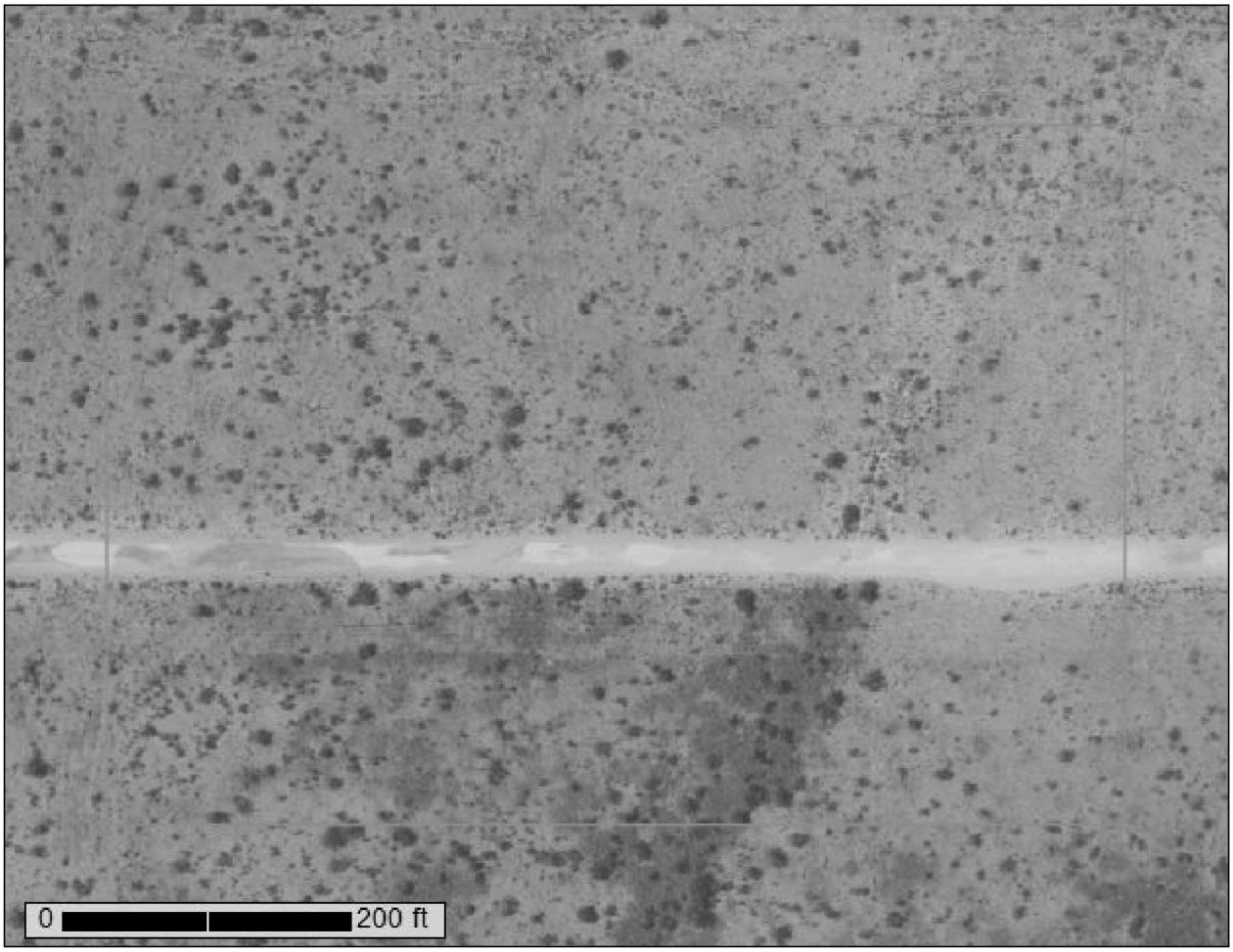
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Lea County, New Mexico



December 7, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

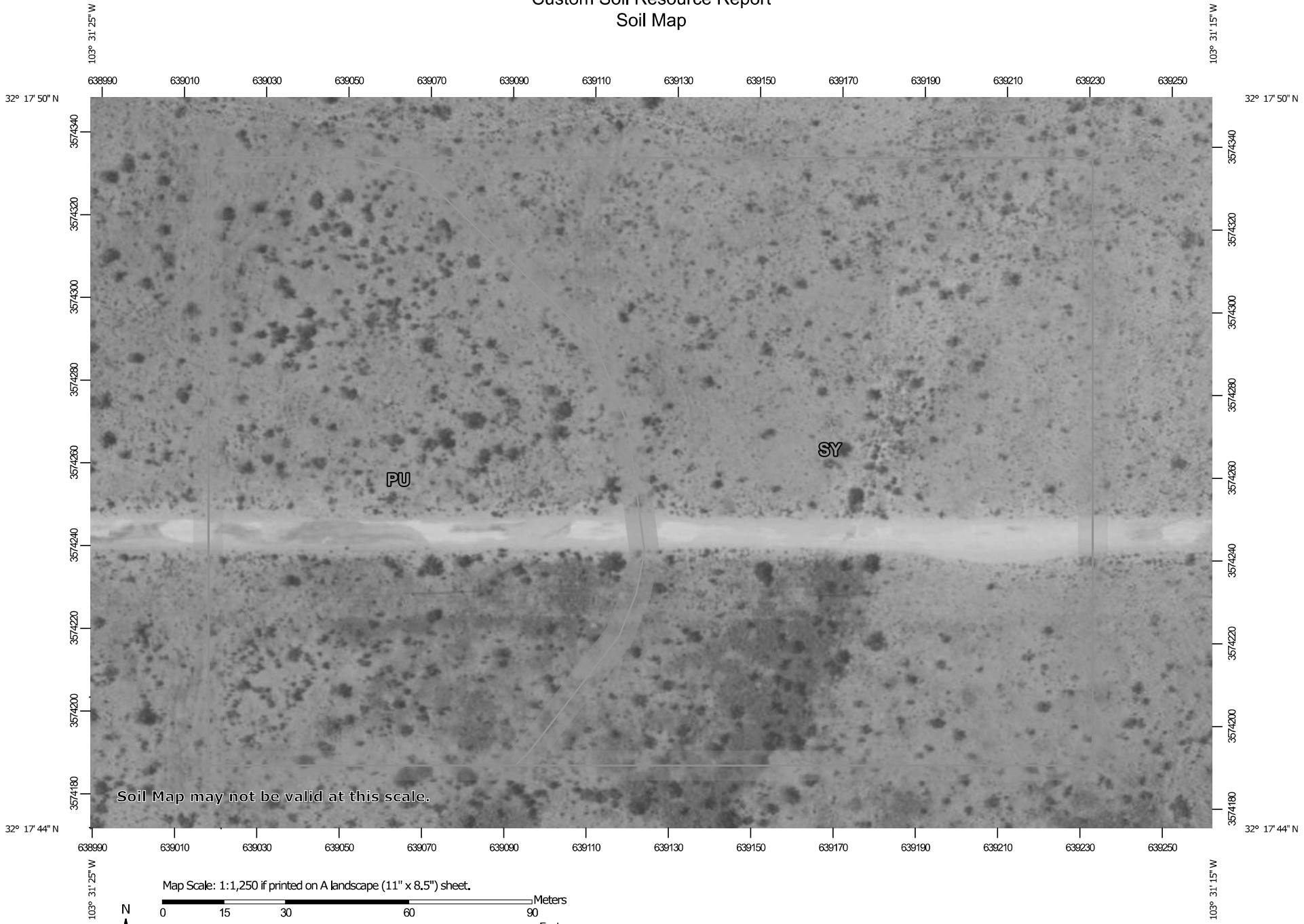
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 20, Sep 6, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PU	Pyote and Maljamar fine sands	3.3	41.6%
SY	Stony rolling land	4.6	58.4%
Totals for Area of Interest		**7.8**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Lea County, New Mexico

PU—Pyote and Maljamar fine sands

Map Unit Setting

National map unit symbol: dmqq
Elevation: 3,000 to 3,900 feet
Mean annual precipitation: 10 to 12 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Pyote and similar soils: 46 percent
Maljamar and similar soils: 44 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pyote

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 30 inches: fine sand
Bt - 30 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Description of Maljamar

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 24 inches: fine sand
Bt - 24 to 50 inches: sandy clay loam
Bkm - 50 to 60 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 60 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Kermit

Percent of map unit: 10 percent
Ecological site: R070BC022NM - Sandhills
Hydric soil rating: No

SY—Stony rolling land

Map Unit Setting

National map unit symbol: dmr5
Elevation: 3,200 to 3,700 feet

Mean annual precipitation: 10 to 12 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Torriorthents and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Torriorthents

Setting

Landform: Escarpments
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous residuum weathered from sandstone and shale

Typical profile

A - 0 to 20 inches: extremely gravelly sandy loam
Cr - 20 to 60 inches: bedrock

Properties and qualities

Slope: 5 to 95 percent
Depth to restrictive feature: 10 to 60 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Very low (about 1.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BC025NM - Shallow
Hydric soil rating: No

Minor Components

Largo

Percent of map unit: 8 percent
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Pajarito

Percent of map unit: 7 percent
Ecological site: R070BD003NM - Loamy Sand

Hydric soil rating: No

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Appendix B

Form C-141_NMOCD Correspondence

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	nAPP2319355921
District RP	
Facility ID	fAPP2130435543
Application ID	

Release Notification

Responsible Party

Responsible Party Chevron U.S.A., Inc.	OGRID 4323
Contact Name Catherine Smith	Contact Telephone 432-967-9487
Contact email catherinesmith@chevron.com	Incident # *(assigned by OCD)* nAPP2319355921
Contact mailing address 6301 Deauville Blvd. Midland, TX 79706	

Location of Release Source

Latitude 32.29389 Longitude -103.53839
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Brininstool CTB	Site Type Production Facility
Date Release Discovered 7/9/2023	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
B	24	23S	33E	Lea

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) 17.243	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)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Corrosion on 1/2 inch nipple connected to the valve.

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

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:

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: Catherine Smith Title: Lead Environmental Specialist, Field Support

Signature: _____ Date: 7/12/2023

email: catherinesmith@chevron.com Telephone: 432-967-9487

OCD Only

Received by: _____ Date: _____

Appendix C

Site Photographs

Site Photographs

Photo 1 *Southern Impact Area prior to Excavation on 08/07/2023*

Photo 2 *Western Impact Area prior to Excavation on 08/07/2023*

Photo 3 Eastern Excavation Area on 10/16/2023

Photo 4 Hydrovacced Electrical Line on 10/17/2023

Photo 5 *Northeast Excavation Area on 10/17/2023*

Photo 6 *Digging Eastern Excavation Area on 10/18/2023*

Photo 7 *Hydrovaccing and Hand Digging Progress on 10/18/2023*

Photo 8 *Northern Excavation Area on 10/19/2023*

Photo 9 *Northwestern Excavation Area on 10/23/2023*

Photo 10 *Southwestern Excavation Area on 10/24/2023*

Photo 11 *Southwestern Backfill Progress on 11/20/2023*

Photo 12 *Northern Backfill Progress on 11/20/2023*

Photo 13 Southwest Backfill Completion on 11/22/2023

Photo 14 Southeast Backfill Completion on 11/22/2023

Photo 15 *North Backfill Completion on 11/22/2023*

Appendix D

Laboratory Analytical Report

Analytical Report
Lab Order **2308475**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron USA
Client Sample ID: TP1 @ 0-1'
Project: Braininstool CBT
Collection Date: 8/7/2023 9:54:00 AM
Lab ID: 2308475-001 **Matrix:** SOIL **Received Date:** 8/9/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	8/11/2023 7:54:24 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	8/11/2023 7:54:24 PM
Surr: DNOP	92.2	69-147		%Rec	1	8/11/2023 7:54:24 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/11/2023 8:08:23 PM
Surr: BFB	96.2	15-244		%Rec	1	8/11/2023 8:08:23 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.023		mg/Kg	1	8/11/2023 8:08:23 PM
Toluene	ND	0.046		mg/Kg	1	8/11/2023 8:08:23 PM
Ethylbenzene	ND	0.046		mg/Kg	1	8/11/2023 8:08:23 PM
Xylenes, Total	ND	0.093		mg/Kg	1	8/11/2023 8:08:23 PM
Surr: 4-Bromofluorobenzene	109	39.1-146		%Rec	1	8/11/2023 8:08:23 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	4800	150		mg/Kg	50	8/15/2023 12:44:10 AM

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308475**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron USA
Client Sample ID: TP1 @ 2'
Project: Braininstool CBT
Collection Date: 8/7/2023 10:00:00 AM
Lab ID: 2308475-002 **Matrix:** SOIL **Received Date:** 8/9/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	8/11/2023 8:05:24 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	8/11/2023 8:05:24 PM
Surr: DNOP	94.5	69-147		%Rec	1	8/11/2023 8:05:24 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/11/2023 8:31:58 PM
Surr: BFB	96.1	15-244		%Rec	1	8/11/2023 8:31:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	8/11/2023 8:31:58 PM
Toluene	ND	0.049		mg/Kg	1	8/11/2023 8:31:58 PM
Ethylbenzene	ND	0.049		mg/Kg	1	8/11/2023 8:31:58 PM
Xylenes, Total	ND	0.099		mg/Kg	1	8/11/2023 8:31:58 PM
Surr: 4-Bromofluorobenzene	109	39.1-146		%Rec	1	8/11/2023 8:31:58 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	5500	300		mg/Kg	100	8/15/2023 12:56:31 AM

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2308475**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron USA
Client Sample ID: TP2 @ 1'R
Project: Braininstool CBT
Collection Date: 8/7/2023 10:14:00 AM
Lab ID: 2308475-003 **Matrix:** SOIL **Received Date:** 8/9/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	8/11/2023 8:16:24 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/11/2023 8:16:24 PM
Surr: DNOP	90.5	69-147		%Rec	1	8/11/2023 8:16:24 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/11/2023 8:55:33 PM
Surr: BFB	95.5	15-244		%Rec	1	8/11/2023 8:55:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.023		mg/Kg	1	8/11/2023 8:55:33 PM
Toluene	ND	0.047		mg/Kg	1	8/11/2023 8:55:33 PM
Ethylbenzene	ND	0.047		mg/Kg	1	8/11/2023 8:55:33 PM
Xylenes, Total	ND	0.094		mg/Kg	1	8/11/2023 8:55:33 PM
Surr: 4-Bromofluorobenzene	110	39.1-146		%Rec	1	8/11/2023 8:55:33 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	4200	150		mg/Kg	50	8/15/2023 4:30:02 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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2308475**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron USA
Client Sample ID: TP3 @ 1'
Project: Braininstool CBT
Collection Date: 8/7/2023 10:18:00 AM
Lab ID: 2308475-004 **Matrix:** SOIL **Received Date:** 8/9/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	8/11/2023 4:25:21 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/11/2023 4:25:21 PM
Surr: DNOP	95.3	69-147		%Rec	1	8/11/2023 4:25:21 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/12/2023 3:15:00 AM
Surr: BFB	103	15-244		%Rec	1	8/12/2023 3:15:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**
Benzene	ND	0.024		mg/Kg	1	8/12/2023 3:15:00 AM
Toluene	ND	0.047		mg/Kg	1	8/12/2023 3:15:00 AM
Ethylbenzene	ND	0.047		mg/Kg	1	8/12/2023 3:15:00 AM
Xylenes, Total	ND	0.094		mg/Kg	1	8/12/2023 3:15:00 AM
Surr: 4-Bromofluorobenzene	93.0	39.1-146		%Rec	1	8/12/2023 3:15:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	1500	60		mg/Kg	20	8/14/2023 9:01:53 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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2308475**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron USA
Client Sample ID: TP3 @ 2'
Project: Braininstool CBT
Collection Date: 8/7/2023 10:19:00 AM
Lab ID: 2308475-005 **Matrix:** SOIL **Received Date:** 8/9/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/11/2023 8:27:24 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/11/2023 8:27:24 PM
Surr: DNOP	85.9	69-147		%Rec	1	8/11/2023 8:27:24 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/11/2023 11:16:17 PM
Surr: BFB	93.4	15-244		%Rec	1	8/11/2023 11:16:17 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	8/11/2023 11:16:17 PM
Toluene	ND	0.049		mg/Kg	1	8/11/2023 11:16:17 PM
Ethylbenzene	ND	0.049		mg/Kg	1	8/11/2023 11:16:17 PM
Xylenes, Total	ND	0.098		mg/Kg	1	8/11/2023 11:16:17 PM
Surr: 4-Bromofluorobenzene	107	39.1-146		%Rec	1	8/11/2023 11:16:17 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	400	60		mg/Kg	20	8/14/2023 9:14:13 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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2308475**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron USA
Client Sample ID: TP4 @ 1'R
Project: Braininstool CBT
Collection Date: 8/7/2023 10:20:00 AM
Lab ID: 2308475-006 **Matrix:** SOIL **Received Date:** 8/9/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/11/2023 8:38:23 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/11/2023 8:38:23 PM
Surr: DNOP	114	69-147		%Rec	1	8/11/2023 8:38:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/12/2023 12:26:30 AM
Surr: BFB	93.3	15-244		%Rec	1	8/12/2023 12:26:30 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	8/12/2023 12:26:30 AM
Toluene	ND	0.050		mg/Kg	1	8/12/2023 12:26:30 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/12/2023 12:26:30 AM
Xylenes, Total	ND	0.10		mg/Kg	1	8/12/2023 12:26:30 AM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	8/12/2023 12:26:30 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	9800	300		mg/Kg	100	8/15/2023 4:42:26 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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 03, 2023

Rebecca Pons
GHD Midland
2135 S Loop 250 W
Midland, TX 79703
TEL: (432) 686-0086
FAX:

RE: Chevron Brininstool CBT OrderNo.: 2310C13

Dear Rebecca Pons:

Eurofins Environment Testing South Central, LLC received 10 sample(s) on 10/26/2023 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 do not hesitate to contact Eurofins Albuquerque 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2310C13**
Date Reported: **11/3/2023**

CLIENT: GHD Midland
Client Sample ID: S-1
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 10:00:00 AM
Lab ID: 2310C13-001 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	2400	150		mg/Kg	50	10/31/2023 12:23:20 PM	78435
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/27/2023 4:50:25 PM	78420
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/27/2023 4:50:25 PM	78420
Surr: DNOP	106	69-147		%Rec	1	10/27/2023 4:50:25 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/30/2023 3:27:19 PM	78414
Surr: BFB	93.6	15-244		%Rec	1	10/30/2023 3:27:19 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.024		mg/Kg	1	10/30/2023 3:27:19 PM	78414
Toluene	ND	0.048		mg/Kg	1	10/30/2023 3:27:19 PM	78414
Ethylbenzene	ND	0.048		mg/Kg	1	10/30/2023 3:27:19 PM	78414
Xylenes, Total	ND	0.097		mg/Kg	1	10/30/2023 3:27:19 PM	78414
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/30/2023 3:27:19 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: S-2
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 10:05:00 AM
Lab ID: 2310C13-002 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	510	60		mg/Kg	20	10/30/2023 6:42:16 PM	78435
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/27/2023 5:22:37 PM	78420
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/27/2023 5:22:37 PM	78420
Surr: DNOP	103	69-147		%Rec	1	10/27/2023 5:22:37 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/30/2023 4:37:58 PM	78414
Surr: BFB	94.4	15-244		%Rec	1	10/30/2023 4:37:58 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.025		mg/Kg	1	10/30/2023 4:37:58 PM	78414
Toluene	ND	0.049		mg/Kg	1	10/30/2023 4:37:58 PM	78414
Ethylbenzene	ND	0.049		mg/Kg	1	10/30/2023 4:37:58 PM	78414
Xylenes, Total	ND	0.098		mg/Kg	1	10/30/2023 4:37:58 PM	78414
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/30/2023 4:37:58 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: S-3
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 10:10:00 AM
Lab ID: 2310C13-003 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	980	60		mg/Kg	20	10/30/2023 6:54:40 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/27/2023 5:33:24 PM	78420
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/27/2023 5:33:24 PM	78420
Surr: DNOP	102	69-147		%Rec	1	10/27/2023 5:33:24 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/30/2023 5:48:32 PM	78414
Surr: BFB	94.0	15-244		%Rec	1	10/30/2023 5:48:32 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.023		mg/Kg	1	10/30/2023 5:48:32 PM	78414
Toluene	ND	0.047		mg/Kg	1	10/30/2023 5:48:32 PM	78414
Ethylbenzene	ND	0.047		mg/Kg	1	10/30/2023 5:48:32 PM	78414
Xylenes, Total	ND	0.094		mg/Kg	1	10/30/2023 5:48:32 PM	78414
Surr: 4-Bromofluorobenzene	99.8	39.1-146		%Rec	1	10/30/2023 5:48:32 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: S-6
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 3:00:00 PM
Lab ID: 2310C13-004 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	1100	60		mg/Kg	20	10/30/2023 7:07:05 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/27/2023 5:44:08 PM	78420
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/27/2023 5:44:08 PM	78420
Surr: DNOP	105	69-147		%Rec	1	10/27/2023 5:44:08 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/30/2023 6:11:57 PM	78414
Surr: BFB	95.7	15-244		%Rec	1	10/30/2023 6:11:57 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.023		mg/Kg	1	10/30/2023 6:11:57 PM	78414
Toluene	ND	0.046		mg/Kg	1	10/30/2023 6:11:57 PM	78414
Ethylbenzene	ND	0.046		mg/Kg	1	10/30/2023 6:11:57 PM	78414
Xylenes, Total	ND	0.093		mg/Kg	1	10/30/2023 6:11:57 PM	78414
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	10/30/2023 6:11:57 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2310C13**
Date Reported: **11/3/2023**

CLIENT: GHD Midland
Client Sample ID: S-7
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 1:00:00 PM
Lab ID: 2310C13-005 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	990	59		mg/Kg	20	10/30/2023 8:21:32 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/27/2023 5:54:55 PM	78420
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2023 5:54:55 PM	78420
Surr: DNOP	105	69-147		%Rec	1	10/27/2023 5:54:55 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/30/2023 6:35:28 PM	78414
Surr: BFB	97.1	15-244		%Rec	1	10/30/2023 6:35:28 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.024		mg/Kg	1	10/30/2023 6:35:28 PM	78414
Toluene	ND	0.048		mg/Kg	1	10/30/2023 6:35:28 PM	78414
Ethylbenzene	ND	0.048		mg/Kg	1	10/30/2023 6:35:28 PM	78414
Xylenes, Total	ND	0.096		mg/Kg	1	10/30/2023 6:35:28 PM	78414
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	10/30/2023 6:35:28 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: SW-1
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 10:15:00 AM
Lab ID: 2310C13-006 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	640	60		mg/Kg	20	10/30/2023 8:33:57 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/27/2023 6:05:43 PM	78420
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/27/2023 6:05:43 PM	78420
Surr: DNOP	108	69-147		%Rec	1	10/27/2023 6:05:43 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/30/2023 6:58:58 PM	78414
Surr: BFB	94.5	15-244		%Rec	1	10/30/2023 6:58:58 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.024		mg/Kg	1	10/30/2023 6:58:58 PM	78414
Toluene	ND	0.048		mg/Kg	1	10/30/2023 6:58:58 PM	78414
Ethylbenzene	ND	0.048		mg/Kg	1	10/30/2023 6:58:58 PM	78414
Xylenes, Total	ND	0.096		mg/Kg	1	10/30/2023 6:58:58 PM	78414
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/30/2023 6:58:58 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: SW-2
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 10:20:00 AM
Lab ID: 2310C13-007 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	280	60		mg/Kg	20	10/30/2023 8:46:21 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/27/2023 6:16:31 PM	78420
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/27/2023 6:16:31 PM	78420
Surr: DNOP	110	69-147		%Rec	1	10/27/2023 6:16:31 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/30/2023 7:22:30 PM	78414
Surr: BFB	95.0	15-244		%Rec	1	10/30/2023 7:22:30 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.025		mg/Kg	1	10/30/2023 7:22:30 PM	78414
Toluene	ND	0.049		mg/Kg	1	10/30/2023 7:22:30 PM	78414
Ethylbenzene	ND	0.049		mg/Kg	1	10/30/2023 7:22:30 PM	78414
Xylenes, Total	ND	0.098		mg/Kg	1	10/30/2023 7:22:30 PM	78414
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	10/30/2023 7:22:30 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2310C13**
Date Reported: **11/3/2023**

CLIENT: GHD Midland
Project: Chevron Brininstool CBT
Lab ID: 2310C13-008 **Matrix:** SOIL

Client Sample ID: S1-HA5'
Collection Date: 10/24/2023 8:30:00 AM
Received Date: 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	360	61		mg/Kg	20	10/30/2023 8:58:46 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/27/2023 6:27:20 PM	78420
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/27/2023 6:27:20 PM	78420
Surr: DNOP	106	69-147		%Rec	1	10/27/2023 6:27:20 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/30/2023 7:45:57 PM	78414
Surr: BFB	95.7	15-244		%Rec	1	10/30/2023 7:45:57 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.025		mg/Kg	1	10/30/2023 7:45:57 PM	78414
Toluene	ND	0.050		mg/Kg	1	10/30/2023 7:45:57 PM	78414
Ethylbenzene	ND	0.050		mg/Kg	1	10/30/2023 7:45:57 PM	78414
Xylenes, Total	ND	0.099		mg/Kg	1	10/30/2023 7:45:57 PM	78414
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	10/30/2023 7:45:57 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2310C13**
Date Reported: **11/3/2023**

CLIENT: GHD Midland
Project: Chevron Brininstool CBT
Lab ID: 2310C13-009 **Matrix:** SOIL

Client Sample ID: TPS-N
Collection Date: 10/24/2023 8:35:00 AM
Received Date: 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	1600	60		mg/Kg	20	10/30/2023 9:11:11 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	320	9.7		mg/Kg	1	10/27/2023 6:48:57 PM	78420
Motor Oil Range Organics (MRO)	270	49		mg/Kg	1	10/27/2023 6:48:57 PM	78420
Surr: DNOP	112	69-147		%Rec	1	10/27/2023 6:48:57 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/30/2023 8:09:23 PM	78414
Surr: BFB	93.1	15-244		%Rec	1	10/30/2023 8:09:23 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.025		mg/Kg	1	10/30/2023 8:09:23 PM	78414
Toluene	ND	0.049		mg/Kg	1	10/30/2023 8:09:23 PM	78414
Ethylbenzene	ND	0.049		mg/Kg	1	10/30/2023 8:09:23 PM	78414
Xylenes, Total	ND	0.098		mg/Kg	1	10/30/2023 8:09:23 PM	78414
Surr: 4-Bromofluorobenzene	99.4	39.1-146		%Rec	1	10/30/2023 8:09:23 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2310C13**
Date Reported: **11/3/2023**

CLIENT: GHD Midland
Client Sample ID: TPS-S
Project: Chevron Brininstool CBT
Collection Date: 10/24/2023 8:40:00 AM
Lab ID: 2310C13-010 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	4800	300		mg/Kg	100	10/31/2023 1:00:32 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/27/2023 7:10:36 PM	78420
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2023 7:10:36 PM	78420
Surr: DNOP	106	69-147		%Rec	1	10/27/2023 7:10:36 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/30/2023 8:32:49 PM	78414
Surr: BFB	96.6	15-244		%Rec	1	10/30/2023 8:32:49 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.024		mg/Kg	1	10/30/2023 8:32:49 PM	78414
Toluene	ND	0.048		mg/Kg	1	10/30/2023 8:32:49 PM	78414
Ethylbenzene	ND	0.048		mg/Kg	1	10/30/2023 8:32:49 PM	78414
Xylenes, Total	ND	0.095		mg/Kg	1	10/30/2023 8:32:49 PM	78414
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	10/30/2023 8:32:49 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310C13**

03-Nov-23

Client: GHD Midland

Project: Chevron Brininstool CBT

Sample ID: **MB-78435**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**								
Client ID: **PBS**	Batch ID: **78435**	RunNo: **100821**								
Prep Date: **10/30/2023**	Analysis Date: **10/30/2023**	SeqNo: **3699446**	Units: **mg/Kg**							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-78435**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**								
Client ID: **LCSS**	Batch ID: **78435**	RunNo: **100821**								
Prep Date: **10/30/2023**	Analysis Date: **10/30/2023**	SeqNo: **3699447**	Units: **mg/Kg**							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	90	110			

Sample ID: **MB-78439**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**								
Client ID: **PBS**	Batch ID: **78439**	RunNo: **100821**								
Prep Date: **10/30/2023**	Analysis Date: **10/30/2023**	SeqNo: **3699450**	Units: **mg/Kg**							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-78439**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**								
Client ID: **LCSS**	Batch ID: **78439**	RunNo: **100821**								
Prep Date: **10/30/2023**	Analysis Date: **10/30/2023**	SeqNo: **3699451**	Units: **mg/Kg**							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	90	110			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310C13**

03-Nov-23

Client: GHD Midland

Project: Chevron Brininstool CBT

Sample ID: **2310C13-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-1** Batch ID: **78420** RunNo: **100779**

Prep Date: **10/27/2023** Analysis Date: **10/27/2023** SeqNo: **3697640** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.6	48.17	0	97.0	54.2	135			
Surr: DNOP	6.0		4.817		125	69	147			

Sample ID: **2310C13-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-1** Batch ID: **78420** RunNo: **100779**

Prep Date: **10/27/2023** Analysis Date: **10/27/2023** SeqNo: **3697641** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.2	46.17	0	99.2	54.2	135	1.99	29.2	
Surr: DNOP	5.7		4.617		124	69	147	0	0	

Sample ID: **LCS-78420** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **78420** RunNo: **100779**

Prep Date: **10/27/2023** Analysis Date: **10/27/2023** SeqNo: **3697664** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	91.0	61.9	130			
Surr: DNOP	5.9		5.000		118	69	147			

Sample ID: **MB-78420** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **78420** RunNo: **100779**

Prep Date: **10/27/2023** Analysis Date: **10/27/2023** SeqNo: **3697666** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	69	147			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310C13**

03-Nov-23

Client: GHD Midland

Project: Chevron Brininstool CBT

Sample ID: **lcs-78414**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **78414**	RunNo: **100815**
Prep Date: **10/27/2023**	Analysis Date: **10/30/2023**	SeqNo: **3698447** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.9	70	130			
Surr: BFB	1900		1000		188	15	244			

Sample ID: **mb-78414**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **78414**	RunNo: **100815**
Prep Date: **10/27/2023**	Analysis Date: **10/30/2023**	SeqNo: **3698671** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.4	15	244			

Sample ID: **2310c13-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-1**	Batch ID: **78414**	RunNo: **100815**
Prep Date: **10/27/2023**	Analysis Date: **10/30/2023**	SeqNo: **3699355** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	24.06	0	95.7	70	130			
Surr: BFB	1900		962.5		200	15	244			

Sample ID: **2310c13-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-1**	Batch ID: **78414**	RunNo: **100815**
Prep Date: **10/27/2023**	Analysis Date: **10/30/2023**	SeqNo: **3699356** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.8	24.11	0	92.7	70	130	2.99	20	
Surr: BFB	1900		964.3		199	15	244	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310C13**

03-Nov-23

Client: GHD Midland

Project: Chevron Brininstool CBT

Sample ID: **LCS-78414**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **78414**	RunNo: **100815**
Prep Date: **10/27/2023**	Analysis Date: **10/30/2023**	SeqNo: **3698449** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.2	70	130			
Toluene	0.93	0.050	1.000	0	93.1	70	130			
Ethylbenzene	0.94	0.050	1.000	0	94.2	70	130			
Xylenes, Total	2.8	0.10	3.000	0	94.2	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	39.1	146			

Sample ID: **mb-78414**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **78414**	RunNo: **100815**
Prep Date: **10/27/2023**	Analysis Date: **10/30/2023**	SeqNo: **3698674** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	39.1	146			

Sample ID: **2310c13-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-2**	Batch ID: **78414**	RunNo: **100815**
Prep Date: **10/27/2023**	Analysis Date: **10/30/2023**	SeqNo: **3699585** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	0.9823	0	90.5	70	130			
Toluene	0.91	0.049	0.9823	0	92.9	70	130			
Ethylbenzene	0.94	0.049	0.9823	0	95.3	70	130			
Xylenes, Total	2.8	0.098	2.947	0	96.5	70	130			
Surr: 4-Bromofluorobenzene	1.0		0.9823		104	39.1	146			

Sample ID: **2310c13-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-2**	Batch ID: **78414**	RunNo: **100815**
Prep Date: **10/27/2023**	Analysis Date: **10/30/2023**	SeqNo: **3699586** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	0.9823	0	90.0	70	130	0.643	20	
Toluene	0.90	0.049	0.9823	0	91.7	70	130	1.34	20	
Ethylbenzene	0.92	0.049	0.9823	0	94.1	70	130	1.20	20	
Xylenes, Total	2.8	0.098	2.947	0	94.1	70	130	2.51	20	
Surr: 4-Bromofluorobenzene	1.0		0.9823		102	39.1	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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: GHD Midland | Work Order Number: 2310C13 | RcptNo: 1

Received By: Juan Rojas 10/26/2023 7:30:00 AM

Completed By: Cheyenne Cason 10/26/2023 8:05:14 AM

Reviewed By: SCM 10/26/23

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 ☐	
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: TMC 10/26/23

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: Mailing address missing on COC- TMC 10/26/23

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Not Present	Yogi		

Chain-of-Custody Record

Client: Amy Barnhill

Mailing Address:

Phone #: 432-687-7108

email or Fax#: ABarnhill@chevron.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 3 day / 72hr.

Project Name: Chevron Brininstool CBT

Project #: 12620035

Project Manager: Rebecca Pons

Sampler: Liam Giersdorf

On Ice: ☐ Yes ☐ No

# of Coolers: 1 Yeti

Cooler Temp (including CF): 1.7-0.1=1.6 (°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. 2310C13	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)
10/23	1000	Soil	S1	Jar, 1	Ice	001	X	X					X			
	1005		S2			002										
	1010		S3			003										
	1500		S6			004										
	1300		S7			005										
	1015		SW1			006										
↓	1020		SW2			007										
10/24	0830		S1-HAS			008										
	0835		TPS-N			009										
↓	0840		TPS-S	↓	↓	010	↓	↓					↓			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
10/25 0825	0800				10/25/23	0800
10/25/23	1910			Courier	10/26/23	7:30

Remarks: Please email results to rebecca.pons@ghd.com; liam.giersdorf@ghd.com; Amy Barnhill

eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 13, 2023

Rebecca Pons
GHD Midland
2135 S Loop 250 W
Midland, TX 79703
TEL: (432) 686-0086
FAX:

RE: Chevron Brininstool CBT OrderNo.: 2311162

Dear Rebecca Pons:

Eurofins Environment Testing South Central, LLC received 8 sample(s) on 11/3/2023 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 do not hesitate to contact Eurofins Albuquerque 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2311162**
Date Reported: **11/13/2023**

CLIENT: GHD Midland
Client Sample ID: TT 6ft
Project: Chevron Brininstool CBT
Collection Date: 11/1/2023 11:20:00 AM
Lab ID: 2311162-001 **Matrix:** SOIL **Received Date:** 11/3/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	82	60		mg/Kg	20	11/7/2023 3:27:31 PM	78599
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	11/7/2023 3:59:32 PM	78588
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	11/7/2023 3:59:32 PM	78588
Surr: DNOP	86.1	69-147		%Rec	1	11/7/2023 3:59:32 PM	78588
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/8/2023 4:08:45 PM	78557
Surr: BFB	92.9	15-244		%Rec	1	11/8/2023 4:08:45 PM	78557
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.023		mg/Kg	1	11/8/2023 4:08:45 PM	78557
Toluene	ND	0.047		mg/Kg	1	11/8/2023 4:08:45 PM	78557
Ethylbenzene	ND	0.047		mg/Kg	1	11/8/2023 4:08:45 PM	78557
Xylenes, Total	ND	0.094		mg/Kg	1	11/8/2023 4:08:45 PM	78557
Surr: 4-Bromofluorobenzene	94.9	39.1-146		%Rec	1	11/8/2023 4:08:45 PM	78557

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2311162**
Date Reported: **11/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: SW-3
Project: Chevron Brininstool CBT
Collection Date: 11/1/2023 1:05:00 PM
Lab ID: 2311162-002 **Matrix:** SOIL **Received Date:** 11/3/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	110	60		mg/Kg	20	11/7/2023 4:04:45 PM	78599
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	11/7/2023 4:23:36 PM	78588
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/7/2023 4:23:36 PM	78588
Surr: DNOP	86.0	69-147		%Rec	1	11/7/2023 4:23:36 PM	78588
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/8/2023 4:32:02 PM	78557
Surr: BFB	94.7	15-244		%Rec	1	11/8/2023 4:32:02 PM	78557
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.023		mg/Kg	1	11/8/2023 4:32:02 PM	78557
Toluene	ND	0.046		mg/Kg	1	11/8/2023 4:32:02 PM	78557
Ethylbenzene	ND	0.046		mg/Kg	1	11/8/2023 4:32:02 PM	78557
Xylenes, Total	ND	0.093		mg/Kg	1	11/8/2023 4:32:02 PM	78557
Surr: 4-Bromofluorobenzene	95.8	39.1-146		%Rec	1	11/8/2023 4:32:02 PM	78557

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2311162**
Date Reported: **11/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: SW-4
Project: Chevron Brininstool CBT
Collection Date: 11/1/2023 1:07:00 PM
Lab ID: 2311162-003 **Matrix:** SOIL **Received Date:** 11/3/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	ND	59		mg/Kg	20	11/7/2023 5:06:48 PM	78599
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/7/2023 4:47:40 PM	78588
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/7/2023 4:47:40 PM	78588
Surr: DNOP	89.8	69-147		%Rec	1	11/7/2023 4:47:40 PM	78588
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/8/2023 4:55:36 PM	78557
Surr: BFB	91.0	15-244		%Rec	1	11/8/2023 4:55:36 PM	78557
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.024		mg/Kg	1	11/8/2023 4:55:36 PM	78557
Toluene	ND	0.049		mg/Kg	1	11/8/2023 4:55:36 PM	78557
Ethylbenzene	ND	0.049		mg/Kg	1	11/8/2023 4:55:36 PM	78557
Xylenes, Total	ND	0.097		mg/Kg	1	11/8/2023 4:55:36 PM	78557
Surr: 4-Bromofluorobenzene	92.8	39.1-146		%Rec	1	11/8/2023 4:55:36 PM	78557

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2311162**
Date Reported: **11/13/2023**

CLIENT: GHD Midland
Client Sample ID: SW-5
Project: Chevron Brininstool CBT
Collection Date: 11/1/2023 1:09:00 PM
Lab ID: 2311162-004 **Matrix:** SOIL **Received Date:** 11/3/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	920	60		mg/Kg	20	11/7/2023 5:19:13 PM	78599
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	11/7/2023 5:11:45 PM	78588
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/7/2023 5:11:45 PM	78588
Surr: DNOP	84.4	69-147		%Rec	1	11/7/2023 5:11:45 PM	78588
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/8/2023 5:42:06 PM	78557
Surr: BFB	92.3	15-244		%Rec	1	11/8/2023 5:42:06 PM	78557
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.023		mg/Kg	1	11/8/2023 5:42:06 PM	78557
Toluene	ND	0.047		mg/Kg	1	11/8/2023 5:42:06 PM	78557
Ethylbenzene	ND	0.047		mg/Kg	1	11/8/2023 5:42:06 PM	78557
Xylenes, Total	ND	0.094		mg/Kg	1	11/8/2023 5:42:06 PM	78557
Surr: 4-Bromofluorobenzene	94.7	39.1-146		%Rec	1	11/8/2023 5:42:06 PM	78557

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2311162**
Date Reported: **11/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: SW-6
Project: Chevron Brininstool CBT
Collection Date: 11/1/2023 1:11:00 PM
Lab ID: 2311162-005 **Matrix:** SOIL **Received Date:** 11/3/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	570	60		mg/Kg	20	11/7/2023 5:31:38 PM	78599
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	11/7/2023 5:35:52 PM	78588
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	11/7/2023 5:35:52 PM	78588
Surr: DNOP	78.4	69-147		%Rec	1	11/7/2023 5:35:52 PM	78588
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/8/2023 6:05:28 PM	78557
Surr: BFB	90.1	15-244		%Rec	1	11/8/2023 6:05:28 PM	78557
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.025		mg/Kg	1	11/8/2023 6:05:28 PM	78557
Toluene	ND	0.050		mg/Kg	1	11/8/2023 6:05:28 PM	78557
Ethylbenzene	ND	0.050		mg/Kg	1	11/8/2023 6:05:28 PM	78557
Xylenes, Total	ND	0.099		mg/Kg	1	11/8/2023 6:05:28 PM	78557
Surr: 4-Bromofluorobenzene	92.6	39.1-146		%Rec	1	11/8/2023 6:05:28 PM	78557

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2311162**
Date Reported: **11/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: S-4
Project: Chevron Brininstool CBT
Collection Date: 11/1/2023 3:20:00 PM
Lab ID: 2311162-006 **Matrix:** SOIL **Received Date:** 11/3/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	810	60		mg/Kg	20	11/7/2023 5:44:03 PM	78599
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/7/2023 6:00:04 PM	78588
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/7/2023 6:00:04 PM	78588
Surr: DNOP	79.9	69-147		%Rec	1	11/7/2023 6:00:04 PM	78588
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/8/2023 6:28:56 PM	78557
Surr: BFB	94.2	15-244		%Rec	1	11/8/2023 6:28:56 PM	78557
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.023		mg/Kg	1	11/8/2023 6:28:56 PM	78557
Toluene	ND	0.047		mg/Kg	1	11/8/2023 6:28:56 PM	78557
Ethylbenzene	ND	0.047		mg/Kg	1	11/8/2023 6:28:56 PM	78557
Xylenes, Total	ND	0.093		mg/Kg	1	11/8/2023 6:28:56 PM	78557
Surr: 4-Bromofluorobenzene	95.7	39.1-146		%Rec	1	11/8/2023 6:28:56 PM	78557

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2311162**
Date Reported: **11/13/2023**

CLIENT: GHD Midland
Client Sample ID: S-5
Project: Chevron Brininstool CBT
Collection Date: 11/1/2023 3:22:00 PM
Lab ID: 2311162-007 **Matrix:** SOIL **Received Date:** 11/3/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	ND	60		mg/Kg	20	11/7/2023 5:56:27 PM	78599
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	11/7/2023 6:24:20 PM	78588
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/7/2023 6:24:20 PM	78588
Surr: DNOP	81.6	69-147		%Rec	1	11/7/2023 6:24:20 PM	78588
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/8/2023 6:52:30 PM	78557
Surr: BFB	92.5	15-244		%Rec	1	11/8/2023 6:52:30 PM	78557
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.024		mg/Kg	1	11/8/2023 6:52:30 PM	78557
Toluene	ND	0.048		mg/Kg	1	11/8/2023 6:52:30 PM	78557
Ethylbenzene	ND	0.048		mg/Kg	1	11/8/2023 6:52:30 PM	78557
Xylenes, Total	ND	0.096		mg/Kg	1	11/8/2023 6:52:30 PM	78557
Surr: 4-Bromofluorobenzene	94.4	39.1-146		%Rec	1	11/8/2023 6:52:30 PM	78557

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2311162**
Date Reported: **11/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: S-8
Project: Chevron Brininstool CBT
Collection Date: 11/1/2023 3:24:00 PM
Lab ID: 2311162-008 **Matrix:** SOIL **Received Date:** 11/3/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	99	60		mg/Kg	20	11/7/2023 6:08:52 PM	78599
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/7/2023 6:48:35 PM	78588
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/7/2023 6:48:35 PM	78588
Surr: DNOP	85.1	69-147		%Rec	1	11/7/2023 6:48:35 PM	78588
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/8/2023 7:16:05 PM	78557
Surr: BFB	92.1	15-244		%Rec	1	11/8/2023 7:16:05 PM	78557
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.025		mg/Kg	1	11/8/2023 7:16:05 PM	78557
Toluene	ND	0.050		mg/Kg	1	11/8/2023 7:16:05 PM	78557
Ethylbenzene	ND	0.050		mg/Kg	1	11/8/2023 7:16:05 PM	78557
Xylenes, Total	ND	0.099		mg/Kg	1	11/8/2023 7:16:05 PM	78557
Surr: 4-Bromofluorobenzene	93.6	39.1-146		%Rec	1	11/8/2023 7:16:05 PM	78557

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2311162**

13-Nov-23

Client: GHD Midland

Project: Chevron Brininstool CBT

Sample ID: **MB-78599**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **78599**	RunNo: **101020**
Prep Date: **11/6/2023**	Analysis Date: **11/7/2023**	SeqNo: **3708550** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-78599**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **78599**	RunNo: **101020**
Prep Date: **11/6/2023**	Analysis Date: **11/7/2023**	SeqNo: **3708551** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.0	90	110			

Sample ID: **2311162-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **TT 6ft**	Batch ID: **78599**	RunNo: **101020**
Prep Date: **11/6/2023**	Analysis Date: **11/7/2023**	SeqNo: **3708561** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	110	60	30.00	81.68	95.3	50	150			

Sample ID: **2311162-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **TT 6ft**	Batch ID: **78599**	RunNo: **101020**
Prep Date: **11/6/2023**	Analysis Date: **11/7/2023**	SeqNo: **3708562** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	120	60	30.00	81.68	113	50	150	4.72	20	

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2311162**

13-Nov-23

Client: GHD Midland

Project: Chevron Brininstool CBT

Sample ID: **LCS-78588**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **78588**	RunNo: **100996**
Prep Date: **11/6/2023**	Analysis Date: **11/6/2023**	SeqNo: **3707250** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.9	61.9	130			
Surr: DNOP	4.4		5.000		88.2	69	147			

Sample ID: **MB-78588**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **78588**	RunNo: **100996**
Prep Date: **11/6/2023**	Analysis Date: **11/6/2023**	SeqNo: **3707253** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	69	147			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2311162**

13-Nov-23

Client: GHD Midland

Project: Chevron Brininstool CBT

Sample ID: **lcs-78557**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **78557**	RunNo: **101030**
Prep Date: **11/3/2023**	Analysis Date: **11/8/2023**	SeqNo: **3709400** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	106	70	130			
Surr: BFB	2100		1000		210	15	244			

Sample ID: **mb-78557**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **78557**	RunNo: **101030**
Prep Date: **11/3/2023**	Analysis Date: **11/8/2023**	SeqNo: **3709401** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		94.6	15	244			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2311162**

13-Nov-23

Client: GHD Midland

Project: Chevron Brininstool CBT

Sample ID: **LCS-78557**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **78557**	RunNo: **101030**
Prep Date: **11/3/2023**	Analysis Date: **11/8/2023**	SeqNo: **3709404** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.3	70	130			
Toluene	0.98	0.050	1.000	0	97.8	70	130			
Ethylbenzene	0.97	0.050	1.000	0	97.4	70	130			
Xylenes, Total	3.0	0.10	3.000	0	98.4	70	130			
Surr: 4-Bromofluorobenzene	0.97		1.000		96.8	39.1	146			

Sample ID: **mb-78557**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **78557**	RunNo: **101030**
Prep Date: **11/3/2023**	Analysis Date: **11/8/2023**	SeqNo: **3709405** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		95.2	39.1	146			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
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: GHD Midland Work Order Number: 2311162 RcptNo: 1

Received By: Tracy Casarrubias 11/3/2023 7:55:00 AM

Completed By: Tracy Casarrubias 11/3/2023 8:29:05 AM

Reviewed By: TMC 11/3/23

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 ☐	
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: SCM 11/3/23

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: Mailing address is missing on COC- TMC 11/3/23

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Amy Barnhill

Mailing Address:

Phone #: 432-687-7108

email or Fax#: ABarnhill@chevron.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush 3-Day

Project Name: Chevron Brinnistool CBT

Project #: 12620035

Project Manager: Rebecca Pons Tristanna Crapo

Sampler: Liam Giersdorf

On Ice: ☒ Yes ☐ No yogi

# of Coolers: 1

Cooler Temp(including CF): 1.3-0=1.3° (°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. 2311162	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)
11/1/23	1120	S	TT GFT	glass 1	N/A	001	X	X					X			
	1305		SW3			002										
	1307		SW4			003										
	1309		SW5			004										
	1311		SW6			005										
	1520		S4			006										
	1522		S5			007										
	1524		S8			008										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
11/1	1730		acummings		11/2/23	915
11/2/23	1900	acummings		courier	11/3/23	7:55

Remarks: Email results to liam.giersdorf@ghd.com; rebecca.pons@ghd.com; jt.murrey@ghd.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.

Analytical Report
Lab Order **2310C13**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland **Client Sample ID:** S-1
Project: Chevron Brininstool CBT **Collection Date:** 10/23/2023 10:00:00 AM
Lab ID: 2310C13-001 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	2400	150		mg/Kg	50	10/31/2023 12:23:20 PM	78435
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/27/2023 4:50:25 PM	78420
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/27/2023 4:50:25 PM	78420
Surr: DNOP	106	69-147		%Rec	1	10/27/2023 4:50:25 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/30/2023 3:27:19 PM	78414
Surr: BFB	93.6	15-244		%Rec	1	10/30/2023 3:27:19 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.024		mg/Kg	1	10/30/2023 3:27:19 PM	78414
Toluene	ND	0.048		mg/Kg	1	10/30/2023 3:27:19 PM	78414
Ethylbenzene	ND	0.048		mg/Kg	1	10/30/2023 3:27:19 PM	78414
Xylenes, Total	ND	0.097		mg/Kg	1	10/30/2023 3:27:19 PM	78414
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/30/2023 3:27:19 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: S-2
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 10:05:00 AM
Lab ID: 2310C13-002 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	510	60		mg/Kg	20	10/30/2023 6:42:16 PM	78435
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/27/2023 5:22:37 PM	78420
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/27/2023 5:22:37 PM	78420
Surr: DNOP	103	69-147		%Rec	1	10/27/2023 5:22:37 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/30/2023 4:37:58 PM	78414
Surr: BFB	94.4	15-244		%Rec	1	10/30/2023 4:37:58 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.025		mg/Kg	1	10/30/2023 4:37:58 PM	78414
Toluene	ND	0.049		mg/Kg	1	10/30/2023 4:37:58 PM	78414
Ethylbenzene	ND	0.049		mg/Kg	1	10/30/2023 4:37:58 PM	78414
Xylenes, Total	ND	0.098		mg/Kg	1	10/30/2023 4:37:58 PM	78414
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/30/2023 4:37:58 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: S-3
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 10:10:00 AM
Lab ID: 2310C13-003 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	980	60		mg/Kg	20	10/30/2023 6:54:40 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/27/2023 5:33:24 PM	78420
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/27/2023 5:33:24 PM	78420
Surr: DNOP	102	69-147		%Rec	1	10/27/2023 5:33:24 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/30/2023 5:48:32 PM	78414
Surr: BFB	94.0	15-244		%Rec	1	10/30/2023 5:48:32 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.023		mg/Kg	1	10/30/2023 5:48:32 PM	78414
Toluene	ND	0.047		mg/Kg	1	10/30/2023 5:48:32 PM	78414
Ethylbenzene	ND	0.047		mg/Kg	1	10/30/2023 5:48:32 PM	78414
Xylenes, Total	ND	0.094		mg/Kg	1	10/30/2023 5:48:32 PM	78414
Surr: 4-Bromofluorobenzene	99.8	39.1-146		%Rec	1	10/30/2023 5:48:32 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: S-6
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 3:00:00 PM
Lab ID: 2310C13-004 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	1100	60		mg/Kg	20	10/30/2023 7:07:05 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/27/2023 5:44:08 PM	78420
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/27/2023 5:44:08 PM	78420
Surr: DNOP	105	69-147		%Rec	1	10/27/2023 5:44:08 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/30/2023 6:11:57 PM	78414
Surr: BFB	95.7	15-244		%Rec	1	10/30/2023 6:11:57 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.023		mg/Kg	1	10/30/2023 6:11:57 PM	78414
Toluene	ND	0.046		mg/Kg	1	10/30/2023 6:11:57 PM	78414
Ethylbenzene	ND	0.046		mg/Kg	1	10/30/2023 6:11:57 PM	78414
Xylenes, Total	ND	0.093		mg/Kg	1	10/30/2023 6:11:57 PM	78414
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	10/30/2023 6:11:57 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: S-7
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 1:00:00 PM
Lab ID: 2310C13-005 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	990	59		mg/Kg	20	10/30/2023 8:21:32 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/27/2023 5:54:55 PM	78420
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2023 5:54:55 PM	78420
Surr: DNOP	105	69-147		%Rec	1	10/27/2023 5:54:55 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/30/2023 6:35:28 PM	78414
Surr: BFB	97.1	15-244		%Rec	1	10/30/2023 6:35:28 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.024		mg/Kg	1	10/30/2023 6:35:28 PM	78414
Toluene	ND	0.048		mg/Kg	1	10/30/2023 6:35:28 PM	78414
Ethylbenzene	ND	0.048		mg/Kg	1	10/30/2023 6:35:28 PM	78414
Xylenes, Total	ND	0.096		mg/Kg	1	10/30/2023 6:35:28 PM	78414
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	10/30/2023 6:35:28 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: SW-1
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 10:15:00 AM
Lab ID: 2310C13-006 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	640	60		mg/Kg	20	10/30/2023 8:33:57 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/27/2023 6:05:43 PM	78420
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/27/2023 6:05:43 PM	78420
Surr: DNOP	108	69-147		%Rec	1	10/27/2023 6:05:43 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/30/2023 6:58:58 PM	78414
Surr: BFB	94.5	15-244		%Rec	1	10/30/2023 6:58:58 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.024		mg/Kg	1	10/30/2023 6:58:58 PM	78414
Toluene	ND	0.048		mg/Kg	1	10/30/2023 6:58:58 PM	78414
Ethylbenzene	ND	0.048		mg/Kg	1	10/30/2023 6:58:58 PM	78414
Xylenes, Total	ND	0.096		mg/Kg	1	10/30/2023 6:58:58 PM	78414
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/30/2023 6:58:58 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: SW-2
Project: Chevron Brininstool CBT
Collection Date: 10/23/2023 10:20:00 AM
Lab ID: 2310C13-007 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	280	60		mg/Kg	20	10/30/2023 8:46:21 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/27/2023 6:16:31 PM	78420
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/27/2023 6:16:31 PM	78420
Surr: DNOP	110	69-147		%Rec	1	10/27/2023 6:16:31 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/30/2023 7:22:30 PM	78414
Surr: BFB	95.0	15-244		%Rec	1	10/30/2023 7:22:30 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.025		mg/Kg	1	10/30/2023 7:22:30 PM	78414
Toluene	ND	0.049		mg/Kg	1	10/30/2023 7:22:30 PM	78414
Ethylbenzene	ND	0.049		mg/Kg	1	10/30/2023 7:22:30 PM	78414
Xylenes, Total	ND	0.098		mg/Kg	1	10/30/2023 7:22:30 PM	78414
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	10/30/2023 7:22:30 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: S1-HA5'
Project: Chevron Brininstool CBT
Collection Date: 10/24/2023 8:30:00 AM
Lab ID: 2310C13-008 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	360	61		mg/Kg	20	10/30/2023 8:58:46 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/27/2023 6:27:20 PM	78420
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/27/2023 6:27:20 PM	78420
Surr: DNOP	106	69-147		%Rec	1	10/27/2023 6:27:20 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/30/2023 7:45:57 PM	78414
Surr: BFB	95.7	15-244		%Rec	1	10/30/2023 7:45:57 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.025		mg/Kg	1	10/30/2023 7:45:57 PM	78414
Toluene	ND	0.050		mg/Kg	1	10/30/2023 7:45:57 PM	78414
Ethylbenzene	ND	0.050		mg/Kg	1	10/30/2023 7:45:57 PM	78414
Xylenes, Total	ND	0.099		mg/Kg	1	10/30/2023 7:45:57 PM	78414
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	10/30/2023 7:45:57 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TPS-N
Project: Chevron Brininstool CBT
Collection Date: 10/24/2023 8:35:00 AM
Lab ID: 2310C13-009 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **KCB**	
Chloride	1600	60		mg/Kg	20	10/30/2023 9:11:11 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	320	9.7		mg/Kg	1	10/27/2023 6:48:57 PM	78420
Motor Oil Range Organics (MRO)	270	49		mg/Kg	1	10/27/2023 6:48:57 PM	78420
Surr: DNOP	112	69-147		%Rec	1	10/27/2023 6:48:57 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/30/2023 8:09:23 PM	78414
Surr: BFB	93.1	15-244		%Rec	1	10/30/2023 8:09:23 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.025		mg/Kg	1	10/30/2023 8:09:23 PM	78414
Toluene	ND	0.049		mg/Kg	1	10/30/2023 8:09:23 PM	78414
Ethylbenzene	ND	0.049		mg/Kg	1	10/30/2023 8:09:23 PM	78414
Xylenes, Total	ND	0.098		mg/Kg	1	10/30/2023 8:09:23 PM	78414
Surr: 4-Bromofluorobenzene	99.4	39.1-146		%Rec	1	10/30/2023 8:09:23 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C13**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland **Client Sample ID:** TPS-S
Project: Chevron Brininstool CBT **Collection Date:** 10/24/2023 8:40:00 AM
Lab ID: 2310C13-010 **Matrix:** SOIL **Received Date:** 10/26/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	4800	300		mg/Kg	100	10/31/2023 1:00:32 PM	78439
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/27/2023 7:10:36 PM	78420
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2023 7:10:36 PM	78420
Surr: DNOP	106	69-147		%Rec	1	10/27/2023 7:10:36 PM	78420
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/30/2023 8:32:49 PM	78414
Surr: BFB	96.6	15-244		%Rec	1	10/30/2023 8:32:49 PM	78414
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.024		mg/Kg	1	10/30/2023 8:32:49 PM	78414
Toluene	ND	0.048		mg/Kg	1	10/30/2023 8:32:49 PM	78414
Ethylbenzene	ND	0.048		mg/Kg	1	10/30/2023 8:32:49 PM	78414
Xylenes, Total	ND	0.095		mg/Kg	1	10/30/2023 8:32:49 PM	78414
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	10/30/2023 8:32:49 PM	78414

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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		

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

QUESTIONS

Action 346411

QUESTIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 346411
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2319355921**
Incident Name	**NAPP2319355921 BRINNINSTOOL TANK BATTERY @ 0**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**
Incident Facility	**[fAPP2130435543] Brinninstool Tank Battery**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	BRINNINSTOOL TANK BATTERY
Date Release Discovered	07/09/2023
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Equipment Failure | Water Tank | Produced Water | Released: 17 BBL | Recovered: 0 BBL | Lost: 17 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 346411
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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.

I hereby agree and sign off to the above statement	Name: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 05/22/2024

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1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 346411
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 500 and 1000 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 300 and 500 (ft.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	9800
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	590
GRO+DRO (EPA SW-846 Method 8015M)	320
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	10/23/2023
On what date will (or did) the final sampling or liner inspection occur	10/23/2023
On what date will (or was) the remediation complete(d)	11/22/2023
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	1600
What is the estimated volume (in cubic yards) that will be remediated	280
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	LEA LAND LANDFILL [fEEM0112342028]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 05/22/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 346411
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only *Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.*	
Requesting a deferral of the remediation closure due date with the approval of this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	the area immediately under the 3-phase separator will be remediated at a point in time that the facility is either decommissioned or plug and abandoned
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	375
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	70
Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.	
Enter the facility ID (f#) on which this deferral should be granted	Brinninstool Tank Battery [fAPP2130435543]
Enter the well API (30-) on which this deferral should be granted	*Not answered.*
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 05/22/2024

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QUESTIONS (continued)

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	Action Number: 346411
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**346572**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**10/23/2023**
What was the (estimated) number of samples that were to be gathered	**17**
What was the sampling surface area in square feet	**1600**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	1225
What was the total volume (cubic yards) remediated	210
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	the area immediately under the 3-phase separator will be remediated at a point in time that the facility is either decommissioned or plug and abandoned

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 05/22/2024

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QUESTIONS (continued)

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QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 346411

CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
nvelez	Deferral is approved. Remediation Due date will be left open until the site has been plugged and abandoned or a major facility deconstruction takes place.	6/13/2024