

### **DEFERRAL REQUEST REPORT**

Culebra Bluff West 15 CTB

Eddy County, New Mexico

Incident Number nAPP2226533583

Prepared for: Chevron USA, Inc. 6301 Deauville Blvd Midland, TX, 79706

Carlsbad ● Houston ● Midland ● San Antonio ● Lubbock ● Hobbs ● Lafayette



#### **SYNOPSIS**

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Chevron USA, Inc (Chevron), presents the following Deferral Request Report (RWP) detailing site assessment activities at the Culebra Bluff West 15 CTB (Site) associated with an inadvertent release of produced water assigned Incident Number nAPP2226533583. Based on field observations and laboratory analytical results from recent soil sampling events, Chevron is proposing to defer residual impacted soil within multiple aboveground equipment, surface and subsurface lines for the safety of onsite personnel and requesting No Further Action (NFA) until the Site undergoes major deconstruction or plugging and abandonment (P&A), whichever comes first.

### SITE LOCATION AND RELEASE BACKGROUND

The Site is located in Unit B, Section 15, Township 23 South, Range 28 East, in Eddy County, New Mexico (32.30986°, -104.07278°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (**Figure 1** in **Appendix A**).

On September 14, 2022, a valve washed out and failed which resulted in approximately 11.1 barrels (bbls) of produced water to be released on the production pad. No fluids were able to be recovered immediately. Chevron reported the release to the NMOCD (Mr. Mike Bratcher) via email on September 15, 2022, and on a Release Notification and Corrective Action Form C-141 (Form C-141) and was subsequently assigned Incident Number nAPP2226533583. **Figure 2** in **Appendix A** depicts the observed release area, hereafter referred to as the Area of Concern (AOC).

### SITE CHARACTERIZATION AND CLOSURE CRITERIA

Etech characterized the Site according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC) considering depth to groundwater and the proximity to:

- Any continuously flowing watercourse or any other significant watercourse;
- Any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
- An occupied permanent residence, school, hospital, institution or church;
- A spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes;
- Any freshwater well or spring;
- Incorporated municipal boundaries or a defined municipal fresh water well field covered under a municipal ordinance;
- A wetland;
- A subsurface mine;
- An unstable area (i.e. high karst potential); and
- A 100-year floodplain.

The nearest, permitted water well with depth to water data appears to be New Mexico Office of the State Engineer (NMOSE) well C-00616, located approximately 0.44 miles southeast of the Site (**Figure 1A** in **Appendix A**). NMOSE well C-00616 has a reported depth to groundwater of 30 feet below ground surface (bgs) from 1980. The well record is provided in **Appendix B**.

The Site is located within a medium karst potential area and all other potential receptors are not within the established buffers defined in NMAC 19.15.29.12. Receptor details from the site characterization are included in **Figure 1B** and **Figure 1C** in **Appendix A**.

Based on the results from the desktop review, estimated regional depth to groundwater at the Site and data age, the following Closure Criteria is applied:



Constituents of Concern (COCs)	Laboratory Analytical Method	Closure Criteria <sup>†</sup>
Chloride	Environmental Protection Agency (EPA) 300.0	600 milligram per kilogram (mg/kg)
TPH (Total Petroleum Hydrocarbon)	EPA 8015 M/D	100 mg/kg
Benzene	EPA 8021B	10 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA 8021B	50 mg/kg

<sup>&</sup>lt;sup>†</sup>The reclamation standard concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

#### SITE ASSESSMENT AND EXCAVATION ACTIVITIES

On July 5, 2023, Etech visited the Site to assess the AOC based on information reported on the Form C-141 and visual observations. The AOC was mapped utilizing a handheld Global Positioning System (GPS) unit, which is shown in **Figure 2** in **Appendix A**. Initial corrective action consisted of removing visually impacted soil from the AOC to the maximum extent practical (MEP) based on site conditions and refusal. Approximately 7.66 cubic yards of soil was removed and disposed of under Chevron approved manifests. Photographic documentation during the site visit and excavation activities is included in **Attachment C**.

Etech collected 5-point composite confirmation soil samples within the AOC representing no greater than 200 square feet from the floors (Bottom Hole 1 through Bottom Hole 3). The 5-point composite soil samples were comprised of five equivalent aliquots homogenized in a 1-gallon, resealable plastic bag. Confirmation soils samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The locations of the confirmation soil samples are shown in **Figure 2** in **Appendix A**.

#### LABORATORY EXCAVATION SOIL ANALYTICAL RESULTS

Elevated COCs exceedances were above the Closure Criteria for all confirmation excavation soil samples (characterized by a chloride concentrations ranging from 3,940 to 6,200 mg/kg). Laboratory analytical results are summarized in **Table 1** included in **Appendix D**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix E**.

### **DELINEATION SOIL SAMPLING ACTIVITIES**

From September 21, 2023, to October 10, 2024, Etech conducted delineation activities to assess the Site for the presence of remaining soil impacts or absence of residual soil impacts associated with the AOC. Delineation activities were advanced within and around the AOC via hand auger until refusal which was driven by field screening soil for VOCs utilizing a calibrated PID and chloride using Hach® chloride QuanTab® test strips. Soil samples were collected at each delineation soil sampling location, representing the highest observed field screening concentrations and/or the greatest depth. The delineation soil sample locations are shown in **Figure 2** in **Appendix A**.

Delineation soil samples were placed directly into lab provided pre-cleaned glass jars, packaged with minimal void space, labeled, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures, to Permian Basin Environmental Lab, L.P. (PBELAB) in Midland, Texas or Envirotech Analytical Laboratory (Envirotech) in Farmington, New Mexico for analysis of COCs.



### LABORATORY DELINEATION SOIL ANALYTICAL RESULTS

Elevated COC exceedances above the Closure Criteria were identified in Test Trench 1 at 0.5-foot bgs (characterized by a chloride concentrations of 2,440 mg/kg) and BH01 at 1-foot bgs (characterized by a chloride concentrations of 618 mg/kg. Based on the laboratory analytical results and location of lateral delineation soil samples (BH01 through BH03 and Test Trench 2), the horizontal edge of the release appears to be delineated. Laboratory analytical results are summarized in **Table 1** included in **Appendix D**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix E**.

#### **DEFERRAL AND VARIANCE REQUEST**

Based on laboratory analytical results from delineation soil sampling events, residual impacts associated with the AOC have been delineated where accessible based on the Site configuration and in which present the least hazard risks for onsite personnel. As such, residual impacts appear to solely reside directly below and near surface utilities and equipment up to 4 feet bgs based on laboratory analytical results for samples collected within and around the AOC. Chevron requests to defer the areas associated with Bottom Hole 1 through Bottom Hole 3 and Test Trench 1, and the remainder of residual impacted soil within the AOC, unable to be safely addressed at this time. Chloride concentrations for BH01 are minimally elevated (618 mg/kg) when compared to the Site Closure Criteria (600 mg/kg). Since impacts are shallow and refusal has been encountered in this area where the use of heavy equipment is limited, de minimis impacts are not anticipated to migrate further. Chevron requests NMOCD to consider this area as a boundary for lateral definition and to assist with a deferral estimation of soil impact left in place.

Chevron believes the initial response recovery efforts have mitigated impacts at the Site and assist with meeting the deferral requirements set forth in NMAC regulations to be protective of human health, the environment, and groundwater. Impacted soil is expected to be contained with the top 0.5 feet of the AOC and does not appear to exceed 4 feet bgs based on representative soil sample Test Trench 1. As such, Chevron respectfully requests deferral of up to 65 cubic yards of residual impacted soil lying beneath multiple aboveground equipment, surface and subsurface lines containment until the Site undergoes major facility deconstruction or P&A, whichever comes first.

If you have any questions or comments, please do not hesitate to contact Joseph Hernandez at (432) 305-6413 or <a href="mailto:joseph@etechenv.com">joseph@etechenv.com</a> or Erick Herrera at (432) 305-6416 or <a href="mailto:erick@etechenv.com">erick@etechenv.com</a>. Documentation of correspondence and notifications regarding Incident Number nAPP2226533583 is presented as **Appendix F**.

Sincerely.

eTECH Environmental and Safety Solutions, Inc.

Abraham Valladares Project Coordinator Joseph S. Hernandez Senior Managing Geologist



cc: Amy Barnhill, Chevron

New Mexico Oil Conservation Division

**Bureau of Land Management** 

### Appendices:

Appendix A Figure 1: Site Map

Figure 1A: Site Characterization Map - Groundwater

Figure 1B: Site Characterization Map - Surficial Receptors

Figure 1C: Site Characterization Map – Subsurface Receptors

Figure 2: Excavation Sample Locations

Figure 3: Delineation Soil Excavation Area

Figure 4: Deferral Area

Appendix B Referenced Well Records

Appendix C Photographic Log

Appendix D: Tables

**Appendix E**: Laboratory Analytical Reports & Chain-of-Custody Documentation

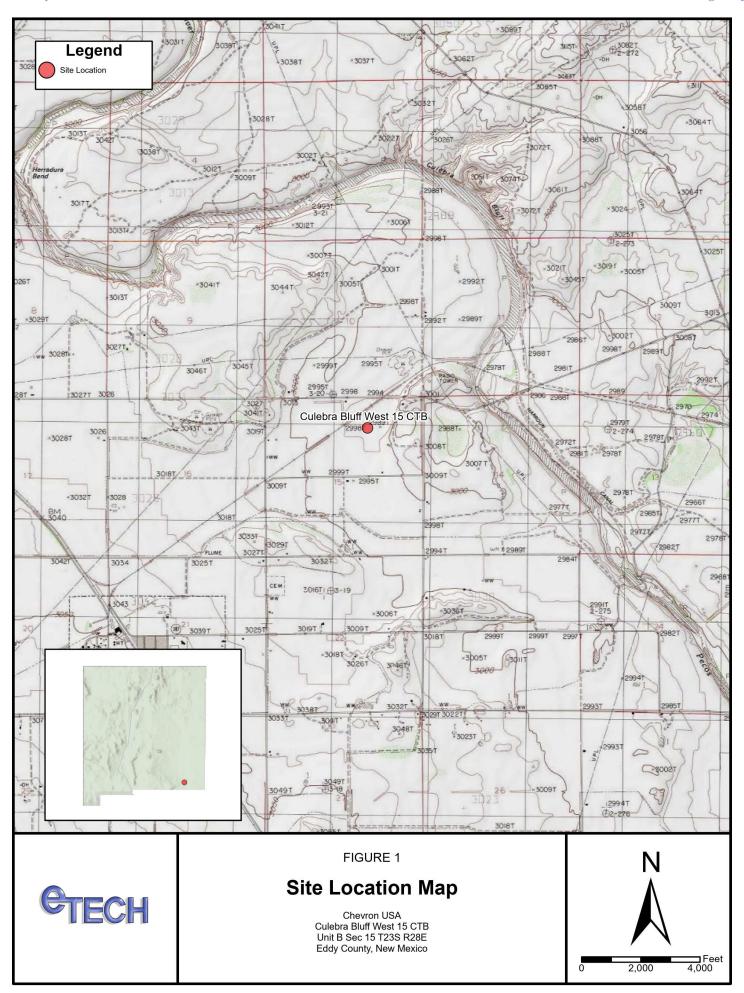
**Appendix F**: Correspondence & Notifications

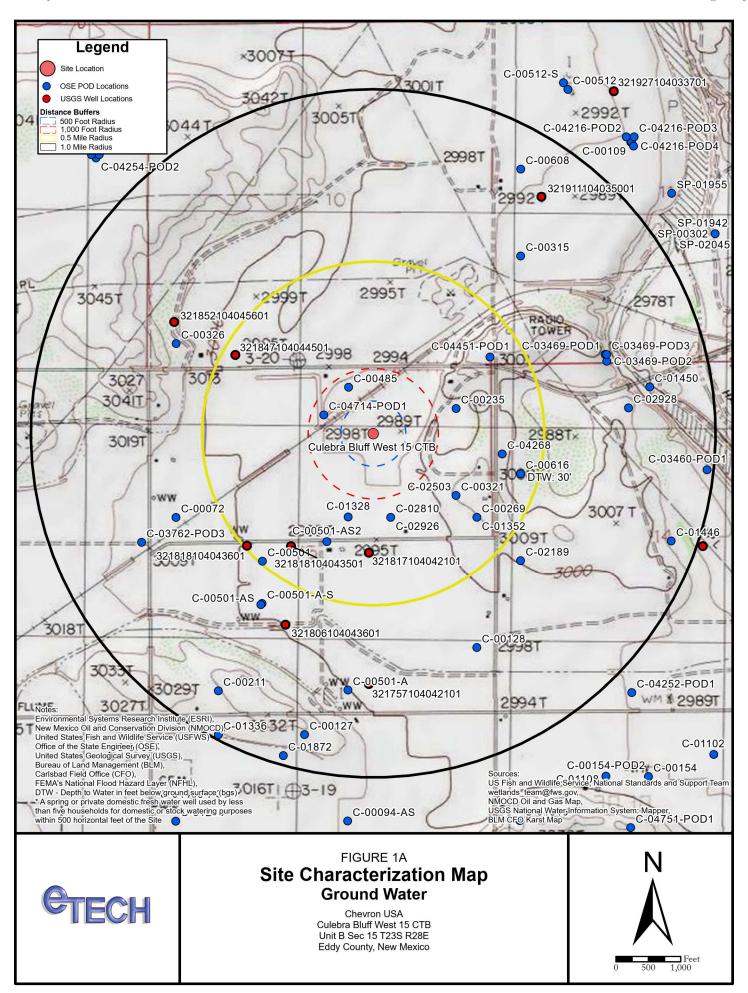
# **APPENDIX A**

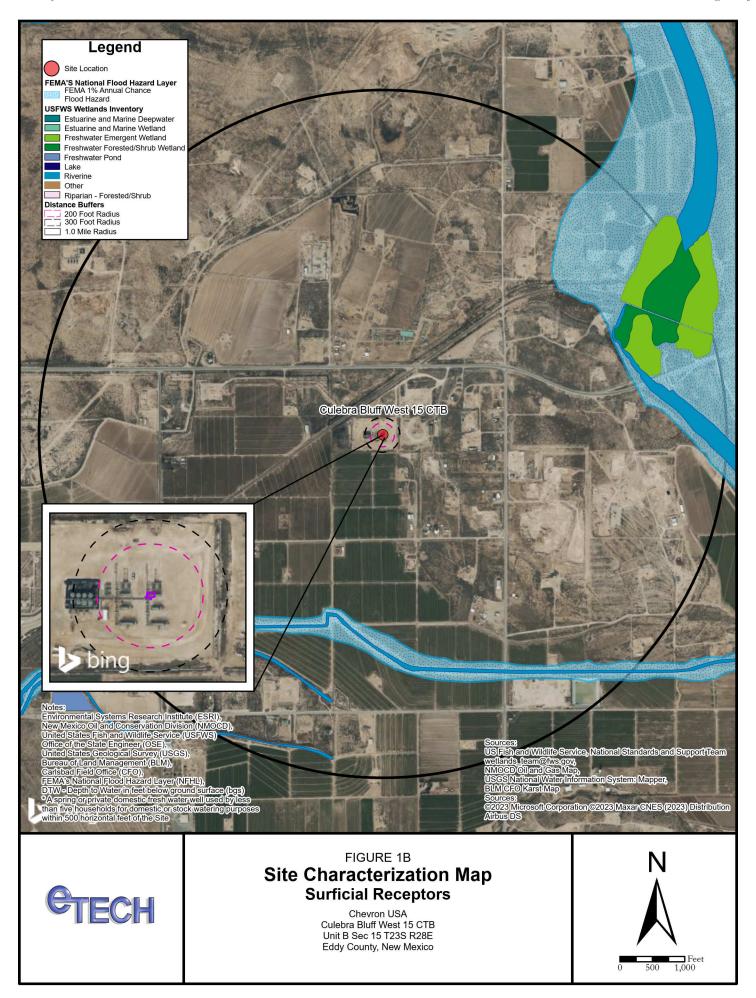
**Figures** 

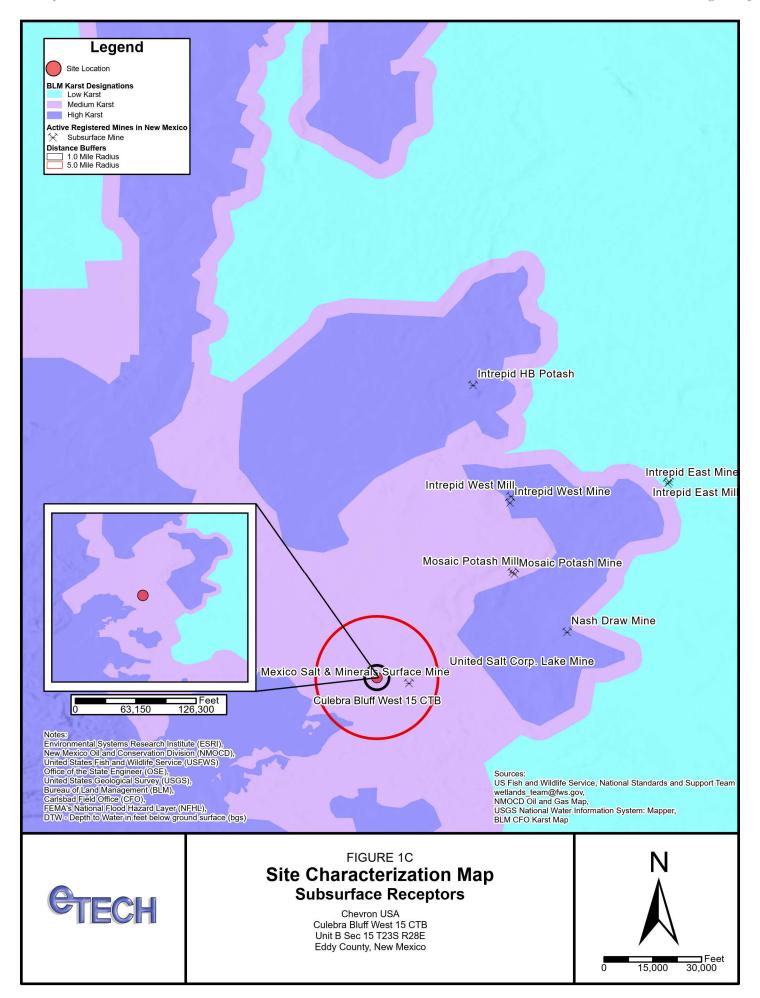
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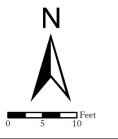


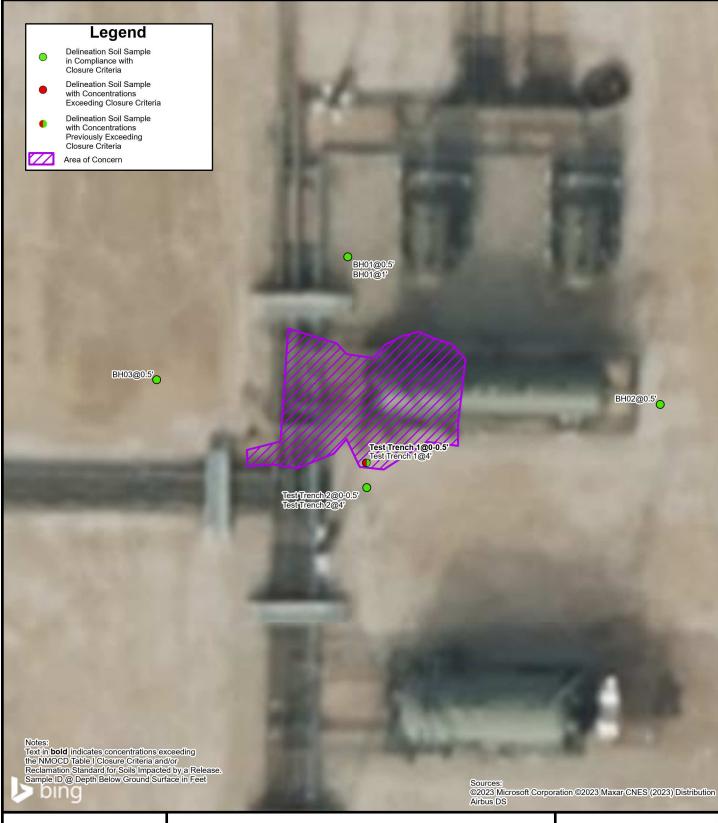


### FIGURE 2

### **Excavation Soil Sample Locations**

Chevron USA, Inc Culebra Bluff West 15 CTB Unit B Sec 15 T23S R28E Eddy County, New Mexico





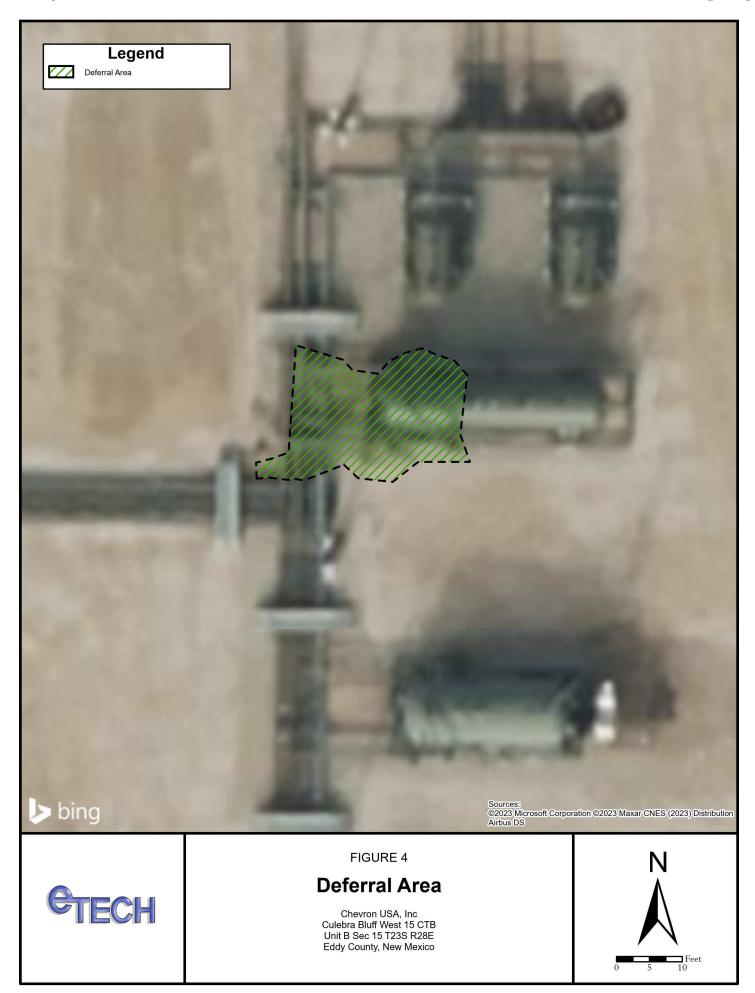


### FIGURE 3

### **Delineation Soil Sample Locations**

Chevron USA, Inc Culebra Bluff West 15 CTB Unit B Sec 15 T23S R28E Eddy County, New Mexico





### **APPENDIX B**

Referenced Well Records

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### **Point of Diversion Summary**

quarters are 1=NW 2=NE 3=SW 4=SE quarters are smallest to largest

NAD83 UTM in meters

Q64 Q16 Q4 Sec Tws Rng X Y Ma

 Well Tag
 POD Nbr
 Q64
 Q16
 Q4
 Sec
 Tws
 Rng
 X
 Y
 Map

 C 00616
 NW
 SW
 NW
 14
 23S
 28E
 587982.0
 3574978.0 \*
 •

\* UTM location was derived from PLSS - see Help

**Driller License:** 842 **Driller Company:** BRININSTOOL, M.D. **Driller Name:** BRININSTOOL, M.D. **Drill Start Date: Drill Finish Date:** 1980-12-05 Plug Date: 1980-10-22 Log File Date: 1980-12-09 **PCW Rcv Date:** Source: Shallow Pump Type: **Pipe Discharge Size: Estimated Yield:** 400 Casing Size: 9.63 Depth Well: 120 **Depth Water:** 30

### **Water Bearing Stratifications:**

Тор	Bottom	Description
60	85	Shallow Alluvium/Basin Fill
92	96	Shallow Alluvium/Basin Fill

### **Casing Perforations:**

Тор	Bottom
60	120

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

11/5/24 2:53 PM MST Point of Diversion Summary

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# **APPENDIX C**

Photographic Log

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### **PHOTOGRAPHIC LOG**

Chevron USA, Inc.
Culebra Bluff 15 West CTB
Incident Number nAPP2226533583



2023/07/05

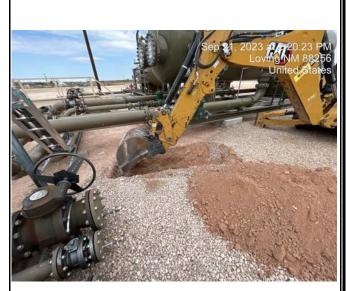
Photograph 1 Date: 07/05/2023

Description: Western view of excavation activities.

Photograph 2 Date: 07/05/2023

Description: Eastern view of excavation activities.





Photograph 3 Date: 09/21/2023 Description: Southeastern view of delineation activities.

Photograph 4 Date: 09/21/2023
Description: Western view of delineation activities.

## APPENDIX D

**Tables** 

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### Table 1 **SOIL SAMPLE ANALYTICAL RESULTS** Chevron USA, Inc. **Culebra Bluff West 15 CTB Eddy County, New Mexico**

Table 1 SOIL SAMPLE ANALYTICAL RESULTS Chevron USA, Inc. Culebra Bluff West 15 CTB Eddy County, New Mexico											
Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)		
NMOCD Table I Closu Release (NMAC 19.15		ils Impacted by a	10	50	NE	NE	NE	100	600		
				Excavation Soil S	Samples - nAPP222653	33583					
Bottom Hole 1	07/05/2023	0.33	<0.00470	<0.00940	<26.0	38.9	<26.0	38.9	5,550		
Bottom Hole 2	07/05/2023	0.33	<0.00480	<0.00970	<26.3	<26.3	<26.3	<26.3	3,940		
Bottom Hole 3	07/05/2023	0.33	<0.00500	<0.0100	<26.0	<26.0	<26.0	<26.0	6,200		
				Delineation Soil S	Samples - nAPP22265	33583					
Test Trench 1	09/21/2023	0-0.5	<0.00109	<0.00217	<27.2	<27.2	<27.2	<27.2	2,440		
Test Trench1	09/21/2023	4	<0.00112	<0.00225	<28.1	<28.1	<28.1	<28.1	532		
Test Trench 2	09/21/2023	0-0.5	<0.00111	<0.00222	<27.8	<27.8	<27.8	<27.8	232		
Test Trench 2	09/21/2023	4	<0.00111	<0.00222	<27.8	<27.8	<27.8	<27.8	248		
BH01	10/10/2024	0.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	583		
BH01	10/10/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	618		
BH02	10/10/2024	0.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	570		
BH03	10/10/2024	0.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	293		

Notes:

bgs: below ground surface mg/kg: milligrams per kilogram

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Text in ""grey"" represents excavated soil samples

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard<sup>†</sup> for Soils Impacted by a Release

The reclamation concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

### **APPENDIX E**

Laboratory Analytical Reports & Chain-of-Custody Documentation

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### PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



# Analytical Report

### **Prepared for:**

Blake Estep
E Tech Environmental & Safety Solutions, Inc. [1]
13000 West County Road 100
Odessa, TX 79765

Project: Culebra Bluff West 15 CTB

Project Number: 16949 Location: New Mexico

Lab Order Number: 3G11013



**Current Certification** 

Report Date: 07/24/23

13000 West County Road 100 Odessa TX, 79765 Project: Culebra Bluff West 15 CTB

Project Number: 16949 Project Manager: Blake Estep

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Bottom Hole 1	3G11013-01	Soil	07/05/23 12:00	07-10-2023 16:00
Bottom Hole 2	3G11013-02	Soil	07/05/23 12:04	07-10-2023 16:00
Bottom Hole 3	3G11013-03	Soil	07/05/23 12:08	07-10-2023 16:00

Project Number: 16949

Project: Culebra Bluff West 15 CTB

13000 West County Road 100 Odessa TX, 79765

Project Manager: Blake Estep

### **Bottom Hole 1** 3G11013-01 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		P	ermian Ba	sin Envi	ronmental l	Lab, L.P.			
Total Petroleum Hydrocarbons C6-	C35 by EPA	Method	8015M						
C6-C12	ND	26.0	mg/kg dry	1	P3G1114	07/11/23 15:00	07/12/23 03:56	TPH 8015M	
>C12-C28	38.9	26.0	mg/kg dry	1	P3G1114	07/11/23 15:00	07/12/23 03:56	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P3G1114	07/11/23 15:00	07/12/23 03:56	TPH 8015M	
Surrogate: 1-Chlorooctane		86.1 %	70-130		P3G1114	07/11/23 15:00	07/12/23 03:56	TPH 8015M	
Surrogate: o-Terphenyl		105 %	70-130		P3G1114	07/11/23 15:00	07/12/23 03:56	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	38.9	26.0	mg/kg dry	1	[CALC]	07/11/23 15:00	07/12/23 03:56	calc	
General Chemistry Parameters by	EPA / Stand	lard Metl	hods						
Chloride	5550	26.0	mg/kg dry	25	P3G1113	07/11/23 17:00	07/12/23 11:43	EPA 300.0	
% Moisture	4.0	0.1	%	1	P3G1206	07/12/23 14:52	07/12/23 14:57	ASTM D2216	
Volatile Organic Compounds by EP	A Method 8	3260B							
Benzene	ND	0.00470	mg/kg	1	P3G2405	07/14/23 13:53	07/14/23 13:53	EPA 8260B	SUB-13
Ethylbenzene	ND	0.00470	mg/kg	1	P3G2405	07/14/23 13:53	07/14/23 13:53	EPA 8260B	SUB-13
m,p-Xylene	ND	0.00940	mg/kg	1	P3G2405	07/14/23 13:53	07/14/23 13:53	EPA 8260B	SUB-13
o-Xylene	ND	0.00470	mg/kg	1	P3G2405	07/14/23 13:53	07/14/23 13:53	EPA 8260B	SUB-13
Toluene	ND	0.00470	mg/kg	1	P3G2405	07/14/23 13:53	07/14/23 13:53	EPA 8260B	SUB-13
Xylenes (total)	ND	0.00470	mg/kg	1	P3G2405	07/14/23 13:53	07/14/23 13:53	EPA 8260B	SUB-13

Project: Culebra Bluff West 15 CTB

13000 West County Road 100 Odessa TX, 79765 Project Number: 16949 Project Manager: Blake Estep

### Bottom Hole 2 3G11013-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		P	ermian Ba	asin Envi	ronmental I	Lab, L.P.			
otal Petroleum Hydrocarbons C6	-C35 by EPA	A Method	1 8015M						
C6-C12	ND	26.3	mg/kg dry	1	P3G1114	07/11/23 15:00	07/12/23 04:20	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P3G1114	07/11/23 15:00	07/12/23 04:20	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P3G1114	07/11/23 15:00	07/12/23 04:20	TPH 8015M	
Surrogate: 1-Chlorooctane		88.3 %	70-130		P3G1114	07/11/23 15:00	07/12/23 04:20	TPH 8015M	
Surrogate: o-Terphenyl		110 %	70-130		P3G1114	07/11/23 15:00	07/12/23 04:20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	07/11/23 15:00	07/12/23 04:20	calc	
General Chemistry Parameters by	EPA / Stand	lard Met	hods						
Chloride	3940	10.5	mg/kg dry	10	P3G1113	07/11/23 17:00	07/12/23 11:58	EPA 300.0	
% Moisture	5.0	0.1	%	1	P3G1206	07/12/23 14:52	07/12/23 14:57	ASTM D2216	
Volatile Organic Compounds by E	PA Method 8	8260B							
Benzene	ND	0.00480	mg/kg	1	P3G2405	07/14/23 14:14	07/14/23 14:14	EPA 8260B	SUB-13
Ethylbenzene	ND	0.00480	mg/kg	1	P3G2405	07/14/23 14:14	07/14/23 14:14	EPA 8260B	SUB-13
m,p-Xylene	ND	0.00970	mg/kg	1	P3G2405	07/14/23 14:14	07/14/23 14:14	EPA 8260B	SUB-13
o-Xylene	ND	0.00480	mg/kg	1	P3G2405	07/14/23 14:14	07/14/23 14:14	EPA 8260B	SUB-13
Toluene	ND	0.00480	mg/kg	1	P3G2405	07/14/23 14:14	07/14/23 14:14	EPA 8260B	SUB-13
Xylenes (total)	ND	0.00480	mg/kg	1	P3G2405	07/14/23 14:14	07/14/23 14:14	EPA 8260B	SUB-13

Project: Culebra Bluff West 15 CTB Project Number: 16949

13000 West County Road 100 Odessa TX, 79765

Project Number: 16949
Project Manager: Blake Estep

### Bottom Hole 3 3G11013-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
	Robalt					•	,		
		P	ermian Ba	asin Envi	ronmental L	ab, L.P.			
Total Petroleum Hydrocarbons C6	-C35 by EPA	Method	8015M						
C6-C12	ND	26.0	mg/kg dry	1	P3G1114	07/11/23 15:00	07/12/23 04:44	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P3G1114	07/11/23 15:00	07/12/23 04:44	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P3G1114	07/11/23 15:00	07/12/23 04:44	TPH 8015M	
Gurrogate: 1-Chlorooctane	8	84.4 %	70-130		P3G1114	07/11/23 15:00	07/12/23 04:44	TPH 8015M	
Surrogate: o-Terphenyl		103 %	70-130		P3G1114	07/11/23 15:00	07/12/23 04:44	TPH 8015M	
Total Petroleum Hydrocarbon	ND	26.0	mg/kg dry	1	[CALC]	07/11/23 15:00	07/12/23 04:44	calc	
C6-C35									
General Chemistry Parameters by	EPA / Standa	ard Metl	nods						
General Chemistry Parameters by Chloride	EPA / Standa 6200	ard Meth 26.0	hods mg/kg dry	25	P3G1113	07/11/23 17:00	07/12/23 12:12	EPA 300.0	
General Chemistry Parameters by Chloride % Moisture				25	P3G1113 P3G1206	07/11/23 17:00 07/12/23 14:52	07/12/23 12:12 07/12/23 14:57	EPA 300.0 ASTM D2216	
Chloride	6200 4.0	26.0 0.1	mg/kg dry	20					
Chloride % Moisture	6200 4.0 PA Method 8	26.0 0.1	mg/kg dry	20					SUB-13
Chloride % Moisture olatile Organic Compounds by E	6200 4.0 PA Method 8 ND	26.0 0.1 <b>260B</b>	mg/kg dry %	1	P3G1206	07/12/23 14:52	07/12/23 14:57	ASTM D2216	SUB-13
Chloride % Moisture olatile Organic Compounds by E Benzene	6200 4.0 PA Method 8 ND	26.0 0.1 <b>260B</b> 0.00500	mg/kg dry % mg/kg	1	P3G1206	07/12/23 14:52 07/14/23 14:36	07/12/23 14:57 07/14/23 14:36	ASTM D2216  EPA 8260B	
Chloride % Moisture  folatile Organic Compounds by E  Benzene  Ethylbenzene	6200 4.0 PA Method 8 ND ND ND	26.0 0.1 <b>260B</b> 0.00500 0.00500	mg/kg dry % mg/kg mg/kg	1 1 1	P3G1206  P3G2405 P3G2405	07/12/23 14:52 07/14/23 14:36 07/14/23 14:36	07/12/23 14:57 07/14/23 14:36 07/14/23 14:36	ASTM D2216  EPA 8260B  EPA 8260B	SUB-1
Chloride % Moisture  olatile Organic Compounds by E  Benzene Ethylbenzene m,p-Xylene	6200 4.0 PA Method 8 ND ND ND ND	26.0 0.1 260B 0.00500 0.00500 0.0100	mg/kg dry % mg/kg mg/kg mg/kg	1 1 1	P3G1206  P3G2405 P3G2405 P3G2405	07/12/23 14:52 07/14/23 14:36 07/14/23 14:36 07/14/23 14:36	07/12/23 14:57 07/14/23 14:36 07/14/23 14:36 07/14/23 14:36	ASTM D2216  EPA 8260B  EPA 8260B  EPA 8260B	SUB-1

Project: Culebra Bluff West 15 CTB Project Number: 16949

13000 West County Road 100 Odessa TX, 79765

Project Number: 16949
Project Manager: Blake Estep

# Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P3G1114 - TX 1005										
Blank (P3G1114-BLK1)				Prepared: (	07/11/23 A1	nalyzed: 07	/12/23			
C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	87.0		"	100		87.0	70-130			
Surrogate: o-Terphenyl	52.7		"	50.0		105	70-130			
LCS (P3G1114-BS1)				Prepared &	Analyzed:	07/11/23				
C6-C12	1040	25.0	mg/kg	1000		104	75-125			
>C12-C28	951	25.0	"	1000		95.1	75-125			
Surrogate: 1-Chlorooctane	118		"	100		118	70-130			
Surrogate: o-Terphenyl	56.3		"	50.0		113	70-130			
LCS Dup (P3G1114-BSD1)				Prepared: (	07/11/23 Aı	nalyzed: 07	/12/23			
C6-C12	1030	25.0	mg/kg	1000		103	75-125	0.911	20	
>C12-C28	946	25.0	"	1000		94.6	75-125	0.620	20	
Surrogate: 1-Chlorooctane	118		"	100		118	70-130			
Surrogate: o-Terphenyl	57.6		"	50.0		115	70-130			
Calibration Check (P3G1114-CCV1)				Prepared &	Analyzed:	07/11/23				
C6-C12	543	25.0	mg/kg	500		109	85-115			
>C12-C28	515	25.0	"	500		103	85-115			
Surrogate: 1-Chlorooctane	123		"	100		123	70-130			
Surrogate: o-Terphenyl	72.9		"	50.0		146	70-130			S-GC
Calibration Check (P3G1114-CCV2)				Prepared: (	07/11/23 Aı	nalyzed: 07	/14/23			
C6-C12	497	25.0	mg/kg	500		99.4	85-115			
>C12-C28	490	25.0	"	500		97.9	85-115			
Surrogate: 1-Chlorooctane	95.0		"	100		95.0	70-130			
Surrogate: o-Terphenyl	53.8		"	50.0		108	70-130			

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

13000 West County Road 100 Project Number: 16949 Odessa TX, 79765

Project Manager: Blake Estep

### Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P3G1114 - TX 1005										
Calibration Check (P3G1114-CCV3)				Prepared: (	)7/11/23 Aı	nalyzed: 07	/14/23			
C6-C12	503	25.0	mg/kg	500		101	85-115			
>C12-C28	500	25.0	"	500		100	85-115			
Surrogate: 1-Chlorooctane	97.0		"	100		97.0	70-130			
Surrogate: o-Terphenyl	55.6		"	50.0		111	70-130			
Duplicate (P3G1114-DUP1)	Sour	ce: 3G11018	-04	Prepared: (	07/11/23 A1	nalyzed: 07	/12/23			
C6-C12	14.0	29.8	mg/kg dry		15.8			12.5	20	
>C12-C28	12.0	29.8	"		13.0			7.89	20	
Surrogate: 1-Chlorooctane	95.4		"	119		80.2	70-130			
Surrogate: o-Terphenyl	60.3		"	59.5		101	70-130			

Project Number: 16949

13000 West County Road 100 Odessa TX, 79765

Project Manager: Blake Estep

### General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3G1113 - *** DEFAULT PREP ***										
Blank (P3G1113-BLK1)				Prepared: (	07/11/23 A	nalyzed: 07	/12/23			
Chloride	ND	1.00	mg/kg							
LCS (P3G1113-BS1)				Prepared: (	07/11/23 A	nalyzed: 07	/12/23			
Chloride	18.8		mg/kg	18.0		104	90-110			
LCS Dup (P3G1113-BSD1)				Prepared: (	07/11/23 A	nalyzed: 07	/12/23			
Chloride	19.1		mg/kg	18.0		106	90-110	1.82	10	
Calibration Check (P3G1113-CCV1)				Prepared: (	07/11/23 A	nalyzed: 07	/12/23			
Chloride	19.0		mg/kg	20.0		95.2	90-110			
Calibration Check (P3G1113-CCV2)				Prepared: (	07/11/23 A	nalyzed: 07	/12/23			
Chloride	18.6		mg/kg	20.0		92.8	90-110			
Calibration Check (P3G1113-CCV3)				Prepared: (	07/11/23 A	nalyzed: 07	/12/23			
Chloride	20.1		mg/kg	20.0		101	90-110			
Matrix Spike (P3G1113-MS1)	Source	ce: 3G11022-	-01	Prepared: (	)7/11/23 A	nalyzed: 07	/12/23			
Chloride	113		mg/kg	100	19.1	93.9	80-120			
Matrix Spike (P3G1113-MS2)	Source	ce: 3G11011-	01	Prepared: (	07/11/23 A	nalyzed: 07	/12/23			
Chloride	103		mg/kg	100	3.68	99.0	80-120			
Matrix Spike Dup (P3G1113-MSD1)	Source	ce: 3G11022-	-01	Prepared: (	)7/11/23 A	nalyzed: 07	/12/23			
Chloride	114		mg/kg	100	19.1	94.8	80-120	0.766	20	
Matrix Spike Dup (P3G1113-MSD2)	Sour	ce: 3G11011-	01	Prepared: (	)7/11/23 A	nalyzed: 07	/12/23			
Chloride	102		mg/kg	100	3.68	97.8	80-120	1.18	20	

13000 West County Road 100 Project Number: 16949 Odessa TX, 79765

Project Manager: Blake Estep

### General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P3G1206 - *** DEFAULT PREP ***										
Blank (P3G1206-BLK1)				Prepared &	Analyzed:	: 07/12/23				
% Moisture	1.0	0.1	%							
Blank (P3G1206-BLK2)				Prepared &	Analyzed:	: 07/12/23				
% Moisture	ND	0.1	%							
Blank (P3G1206-BLK3)				Prepared &	Analyzed:	: 07/12/23				
% Moisture	ND	0.1	%							
Duplicate (P3G1206-DUP1)	Sour	ce: 3G11013-	01	Prepared &	Analyzed:	: 07/12/23				
% Moisture	5.0	0.1	%		4.0			22.2	20	
Duplicate (P3G1206-DUP2)	Sour	ce: 3G11016-	01	Prepared &	Analyzed:	: 07/12/23				
% Moisture	8.0	0.1	%		11.0			31.6	20	R
Duplicate (P3G1206-DUP3)	Sour	ce: 3G11020-	04	Prepared &	Analyzed:	: 07/12/23				
% Moisture	7.0	0.1	%		7.0			0.00	20	
Duplicate (P3G1206-DUP4)	Sour	ce: 3G11022-	06	Prepared &	Analyzed:	: 07/12/23				
% Moisture	11.0	0.1	%		11.0			0.00	20	

13000 West County Road 100 Odessa TX, 79765 Project: Culebra Bluff West 15 CTB

Project Number: 16949
Project Manager: Blake Estep

#### **Notes and Definitions**

SUB-13 Subcontract of analyte/analysis to ALS Houston.

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

R3 The RPD exceeded the acceptance limit due to sample matrix effects.

NPBEL CC Chain of Custody was not generated at PBELAB

BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By: Date: 7/24/2023

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

E Tech Environmental & Safety Solutions, Inc. [1] Project: Culebra Bluff West 15 CTB

13000 West County Road 100 Project Number: 16949
Odessa TX, 79765 Project Manager: Blake Estep

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If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

				Page	32 of 8	31
Sampler Signature: Wildiagd, 1 exas 79711 email: blake@etecheny.com	SSe	Company Name: Etech Environmental & Safety Solutions, Inc.	Project Manager: Blake Estep	1.100 Rankin Hwy Midland Texas 79701 Phone: 132-686-723;	PBIJANB Remina Basin Bas	
⊠Bill Etech	Area: PO#: /6 949	Project #: $16949$ Project Loc:	Project Name: Calebra Bluff West		CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST	

(lab use only)
ORDER #:367) Special Instructions: Relinquished by elinquished by LAB # (lab use only) FIELD CODE 40/8 Start Depth **End Depth** Preservation & # of Containers Date Sampled بغ 12:04 12:08 12:00 Time Sampled No. of Containers Z Z Ice HNO<sub>3</sub> H<sub>2</sub>SO<sub>4</sub> NaOH Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> None Report Format: STANDARD: П Other (Specify) DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid 0.00 Temperature Upon Receipt. X A TPH: 418.1 **3015N 1005** 1006 VOCs Free of Headspace?
Oustody seals on container(s)
Custody seals on cooler(s) Cations (Ca, Mg, Na, K) Sample Containers Intact? TOTAL Anions (CI, SO4, CO3, HCO3) TCLP: SAR / ESP / CEC Metals: As Ag Ba Cd Cr Pb Hg Se Volatiles Analyze For: Semi volatiles X BTEX 80215/5030 or BTEX 8260 N.O.R.M. H Chlorides ~~~~~~ **Z Z Z Z Z Z** റ് RUSH TAT(Pre-Schedule) 24, 48, 72 hrs STANDARD TAT

Page 12 of 13



#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP 1400 Rankin HWY Midland, Texas 79701 **Phone: 432-686-7235**PBELAB\_SUB\_COC\_V2

	Project Manager:	Brent Barro	n						11411	u, 1	CAGS		, , ,				Pro	ject	Nan	ne:_		Sl	JBC	ON	TRA	СТ				
	Company Name	PBEL																Pro	ject	#:_										
	Company Address:	1400 Rankii	n HWY														P	roje	ct Lo	oc: _										
	City/State/Zip:	Midland Tex	kas 79701																											
	Telephone No:	432-661-41	84				Fax No:										Repo	rt Fo	orma	at: X	( St	anda	ard	[	Т	RRP		$\square_{N}$	PDES	;
	Sampler Signature:	N/A					e-mail:		brer	ntbai	rron@	⊉pb∈	elab.	com																ì
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ORDER #	<b>t</b> :								Ī	P	reserv	/ation	1 & #	of Co	ntaine	rs	Mat	·ix												
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AB # (lab use only)				g Depth	epth	npled	mpled	p	ontainers		ooly 1	HCI 3 40mL VOA	1 <sub>2</sub> 30 <sub>4</sub> I Aiviber 300/230POLT	פרטו מוכ אכומ בסטואוד		NONE 3 AMBER VOAA VIALS	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid	ible Specify Other	BTEX TOTAL CALC										8	Ω
LAB# (lab	FI	IELD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	ICE	HNO <sub>3 250 poly 1</sub>	HCI 3 40mL VOA	N2004 1 P	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	NONE	NONE 3 A	DW=Drinking GW = Ground	NP=Non-Potable	8021B BTEX										24 HOU	STANDARD
	3G	11013-01				7/5/2023	12:00		1	X							S		Х											Х
	3G	11013-02				7/5/2023	12:04		1	Х							S		Х											Х
	3G	11013-03				7/5/2023	12:08		1	Х							S		Х											Х
																													T	
SPECIAL	INSTRUCTIONS:																			<b>Labo</b> i Samp				its: ntact?	)			Υ	N	
D - U t	ala a di la co	<u> </u>	Data	<b>T</b> :		In a set of the co									ı	D - 4		<b>-</b> :	_	VOCs Label				ace?				Y Y	N N	
Reiinqui Brent Ba	shed by: irron		Date	l III	ne	Received by:										Dat	e	Hir		Custo	dy se	als or	n con	taine				Υ	N	
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Relinqui	shed by:		Date	Tir	me	Received by:										Dat	e	Tir		b Temp Recei Adjus	ved:	rier? Ire Up	oon F		DI ot: °C °C Fact	HL tor	FedE	x Lo	one Sta	r
		III.		•											•			•							_	$\overline{}$				_

### PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



# Analytical Report

### **Prepared for:**

Blake Estep
E Tech Environmental & Safety Solutions, Inc. [1]
13000 West County Road 100
Odessa, TX 79765

Project: Culebra Bluff West 15 CTB

Project Number: 16949 Location: None Given

Lab Order Number: 3I26013



**Current Certification** 

Report Date: 10/05/23

13000 West County Road 100 Odessa TX, 79765 Project: Culebra Bluff West 15 CTB

Project Number: 16949 Project Manager: Blake Estep

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Test Trench-1 @ 0"-6"	3I26013-01	Soil	09/21/23 14:15	09-26-2023 09:06
Test Trench-1 @ 48"	3I26013-02	Soil	09/21/23 14:30	09-26-2023 09:06
Test Trench-2 @ 0"-6"	3I26013-03	Soil	09/21/23 14:44	09-26-2023 09:06
Test Trench-2 @ 48"	3I26013-04	Soil	09/21/23 14:55	09-26-2023 09:06

13000 West County Road 100 Project Number: 16949 Odessa TX, 79765

Project Manager: Blake Estep

### Test Trench-1 @ 0"-6" 3I26013-01 (Soil)

Analyte		Reporting	** **	75 H . I	D . 1		Alaran d	Mada d	Mar			
Anaryte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes			
Permian Basin Environmental Lab, L.P.												
BTEX by 8021B												
Benzene	ND	0.00109	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 09:27	EPA 8021B				
Toluene	ND	0.00109	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 09:27	EPA 8021B				
Ethylbenzene	ND	0.00109	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 09:27	EPA 8021B				
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 09:27	EPA 8021B				
Xylene (o)	ND	0.00109	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 09:27	EPA 8021B				
Surrogate: 4-Bromofluorobenzene		106 %	80-120		P3J0206	10/02/23 10:58	10/03/23 09:27	EPA 8021B				
Surrogate: 1,4-Difluorobenzene		97.6 %	80-120		P3J0206	10/02/23 10:58	10/03/23 09:27	EPA 8021B				
Xylenes (total)	ND	0.00217	mg/kg dry	1	[CALC]	10/02/23 10:58	10/03/23 09:27	EPA 8021B				
Total BTEX	ND	0.00109	mg/kg dry	1	[CALC]	10/02/23 10:58	10/03/23 09:27	EPA 8021B				
Total Petroleum Hydrocarbons C6	-C35 by TN	RCC Met	hod 1005									
C6-C12	ND	27.2	mg/kg dry	1	P3I2805	09/28/23 08:00	09/29/23 09:58	TX 1005				
>C12-C28	ND	27.2	mg/kg dry	1	P3I2805	09/28/23 08:00	09/29/23 09:58	TX 1005				
>C28-C35	ND	27.2	mg/kg dry	1	P3I2805	09/28/23 08:00	09/29/23 09:58	TX 1005				
Surrogate: 1-Chlorooctane		93.5 %	70-130		P3I2805	09/28/23 08:00	09/29/23 09:58	TX 1005				
Surrogate: o-Terphenyl		98.9 %	70-130		P3I2805	09/28/23 08:00	09/29/23 09:58	TX 1005				
Total Hydrocarbon nC6-nC35	ND	27.2	mg/kg dry	1	[CALC]	09/28/23 08:00	09/29/23 09:58	[CALC]				
General Chemistry Parameters by	EPA / Stand	lard Metl	hods									
Chloride	2440	10.9	mg/kg dry	10	P3I2903	09/29/23 09:42	09/30/23 14:23	EPA 300.0				
% Moisture	8.0	0.1	%	1	P3I2703	09/27/23 08:37	09/27/23 08:42	ASTM D2216				

Project Number: 16949 Project Manager: Blake Estep

13000 West County Road 100 Odessa TX, 79765

# Test Trench-1 @ 48" 3126013-02 (Soil)

Project: Culebra Bluff West 15 CTB

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		P	ermian B	asin Envi	ronmental I				
BTEX by 8021B									
Benzene	ND	0.00112	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 09:51	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 09:51	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 09:51	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 09:51	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 09:51	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		97.4 %	80-120		P3J0206	10/02/23 10:58	10/03/23 09:51	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		107 %	80-120		P3J0206	10/02/23 10:58	10/03/23 09:51	EPA 8021B	
Xylenes (total)	ND	0.00225	mg/kg dry	1	[CALC]	10/02/23 10:58	10/03/23 09:51	EPA 8021B	
Total BTEX	ND	0.00112	mg/kg dry	1	[CALC]	10/02/23 10:58	10/03/23 09:51	EPA 8021B	
Total Petroleum Hydrocarbons C6-	C35 by TN	RCC Met	thod 1005						
C6-C12	ND	28.1	mg/kg dry	1	P3I2805	09/28/23 08:00	09/29/23 10:23	TX 1005	
>C12-C28	ND	28.1	mg/kg dry	1	P3I2805	09/28/23 08:00	09/29/23 10:23	TX 1005	
>C28-C35	ND	28.1	mg/kg dry	1	P3I2805	09/28/23 08:00	09/29/23 10:23	TX 1005	
Surrogate: 1-Chlorooctane		106 %	70-130		P3I2805	09/28/23 08:00	09/29/23 10:23	TX 1005	
Surrogate: o-Terphenyl		114 %	70-130		P3I2805	09/28/23 08:00	09/29/23 10:23	TX 1005	
Total Hydrocarbon nC6-nC35	ND	28.1	mg/kg dry	1	[CALC]	09/28/23 08:00	09/29/23 10:23	[CALC]	
General Chemistry Parameters by	EPA / Stand	lard Metl	hods						
Chloride	532	11.2	mg/kg dry	10	P3I2903	09/29/23 09:42	09/30/23 15:35	EPA 300.0	
% Moisture	11.0	0.1	%	1	P3I2703	09/27/23 08:37	09/27/23 08:42	ASTM D2216	

13000 West County Road 100 Odessa TX, 79765 Project: Culebra Bluff West 15 CTB

Project Number: 16949 Project Manager: Blake Estep

### Test Trench-2 @ 0''-6'' 3126013-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		P	ermian B	asin Envi	ronmental I	Lab, L.P.			
BTEX by 8021B									
Benzene	ND	0.00111	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 10:16	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 10:16	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 10:16	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 10:16	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 10:16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		97.3 %	80-120		P3J0206	10/02/23 10:58	10/03/23 10:16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		106 %	80-120		P3J0206	10/02/23 10:58	10/03/23 10:16	EPA 8021B	
Xylenes (total)	ND	0.00222	mg/kg dry	1	[CALC]	10/02/23 10:58	10/03/23 10:16	EPA 8021B	
Total BTEX	ND	0.00111	mg/kg dry	1	[CALC]	10/02/23 10:58	10/03/23 10:16	EPA 8021B	
Total Petroleum Hydrocarbons C6-	C35 by TN	RCC Met	thod 1005						
C6-C12	ND	27.8	mg/kg dry	1	P3I2805	09/28/23 08:00	09/29/23 10:49	TX 1005	
>C12-C28	ND	27.8	mg/kg dry	1	P3I2805	09/28/23 08:00	09/29/23 10:49	TX 1005	
>C28-C35	ND	27.8	mg/kg dry	1	P3I2805	09/28/23 08:00	09/29/23 10:49	TX 1005	
Surrogate: 1-Chlorooctane		70.1 %	70-130		P3I2805	09/28/23 08:00	09/29/23 10:49	TX 1005	
Surrogate: o-Terphenyl		75.3 %	70-130		P3I2805	09/28/23 08:00	09/29/23 10:49	TX 1005	
Total Hydrocarbon nC6-nC35	ND	27.8	mg/kg dry	1	[CALC]	09/28/23 08:00	09/29/23 10:49	[CALC]	
General Chemistry Parameters by	EPA / Stand	lard Metl	hods						
Chloride	232	11.1	mg/kg dry	10	P3I2903	09/29/23 09:42	09/30/23 15:49	EPA 300.0	
% Moisture	10.0	0.1	%	1	P3I2703	09/27/23 08:37	09/27/23 08:42	ASTM D2216	

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13000 West County Road 100 Odessa TX, 79765 Project: Culebra Bluff West 15 CTB

Project Number: 16949 Project Manager: Blake Estep

# Test Trench-2 @ 48" 3126013-04 (Soil)

Analista		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		P	ermian B	asin Envi	ronmental I	Lab, L.P.			
BTEX by 8021B									
Benzene	ND	0.00111	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 10:40	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 10:40	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 10:40	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 10:40	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P3J0206	10/02/23 10:58	10/03/23 10:40	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		97.1 %	80-120		P3J0206	10/02/23 10:58	10/03/23 10:40	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		106 %	80-120		P3J0206	10/02/23 10:58	10/03/23 10:40	EPA 8021B	
Xylenes (total)	ND	0.00222	mg/kg dry	1	[CALC]	10/02/23 10:58	10/03/23 10:40	EPA 8021B	
Total BTEX	ND	0.00111	mg/kg dry	1	[CALC]	10/02/23 10:58	10/03/23 10:40	EPA 8021B	
Total Petroleum Hydrocarbons C6	-C35 by TN	RCC Met	thod 1005	;					
C6-C12	ND	27.8	mg/kg dry	1	P3I2805	09/28/23 08:00	09/29/23 11:15	TX 1005	
>C12-C28	ND	27.8	mg/kg dry	1	P3I2805	09/28/23 08:00	09/29/23 11:15	TX 1005	
>C28-C35	ND	27.8	mg/kg dry	1	P3I2805	09/28/23 08:00	09/29/23 11:15	TX 1005	
Surrogate: 1-Chlorooctane		70.6 %	70-130		P3I2805	09/28/23 08:00	09/29/23 11:15	TX 1005	
Surrogate: o-Terphenyl		75.3 %	70-130		P3I2805	09/28/23 08:00	09/29/23 11:15	TX 1005	
Total Hydrocarbon nC6-nC35	ND	27.8	mg/kg dry	1	[CALC]	09/28/23 08:00	09/29/23 11:15	[CALC]	
General Chemistry Parameters by	EPA / Stand	dard Metl	hods						
Chloride	248	11.1	mg/kg dry	10	P3I2903	09/29/23 09:42	09/30/23 16:03	EPA 300.0	
% Moisture	10.0	0.1	%	1	P3I2703	09/27/23 08:37	09/27/23 08:42	ASTM D2216	

13000 West County Road 100 Odessa TX, 79765 Project: Culebra Bluff West 15 CTB

Project Number: 16949 Project Manager: Blake Estep

## BTEX by 8021B - Quality Control Permian Basin Environmental Lab, L.P.

	D. In	Reporting	TT '4	Spike	Source	0/DEC	%REC	DDD	RPD	NT :
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch	*									
Blank (P3J0206-BLK1)				Prepared &	Analyzed:	10/02/23				
Benzene	ND	0.00100	mg/kg							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.127		"	0.120		106	80-120			
LCS (P3J0206-BS1)				Prepared &	Analyzed:	10/02/23				
Benzene	0.0964	0.00100	mg/kg	0.100		96.4	80-120			
Toluene	0.0919	0.00100	"	0.100		91.9	80-120			
Ethylbenzene	0.0986	0.00100	"	0.100		98.6	80-120			
Xylene (p/m)	0.195	0.00200	"	0.200		97.6	80-120			
Xylene (o)	0.0859	0.00100	"	0.100		85.9	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.4	80-120			
Surrogate: 4-Bromofluorobenzene	0.125		"	0.120		105	80-120			
LCS Dup (P3J0206-BSD1)				Prepared &	Analyzed:	10/02/23				
Benzene	0.108	0.00100	mg/kg	0.100		108	80-120	11.3	20	
Гoluene	0.105	0.00100	"	0.100		105	80-120	12.9	20	
Ethylbenzene	0.112	0.00100	"	0.100		112	80-120	12.9	20	
Xylene (p/m)	0.218	0.00200	"	0.200		109	80-120	11.3	20	
Xylene (o)	0.0981	0.00100	"	0.100		98.1	80-120	13.3	20	
Surrogate: 4-Bromofluorobenzene	0.125		"	0.120		105	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.8	80-120			
Calibration Blank (P3J0206-CCB1)				Prepared &	Analyzed:	10/02/23				
Benzene	0.190		ug/kg		-					
Toluene	0.240		"							
Ethylbenzene	0.160		"							
Xylene (p/m)	0.170		"							
Xylene (o)	0.240		"							
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.8	80-120			

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Surrogate: 4-Bromofluorobenzene

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80-120

0.120

0.129

13000 West County Road 100 Odessa TX, 79765 Project: Culebra Bluff West 15 CTB

Project Number: 16949 Project Manager: Blake Estep

## BTEX by 8021B - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3J0206 - *** DEFAULT PREP ***										
Calibration Blank (P3J0206-CCB2)				Prepared: 1	10/02/23 A1	nalyzed: 10	/03/23			
Benzene	0.100		ug/kg							
Toluene	0.370		"							
Ethylbenzene	0.0700		"							
Xylene (p/m)	0.160		"							
Xylene (o)	0.230		"							
Surrogate: 4-Bromofluorobenzene	0.133		"	0.120		111	80-120			
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		98.9	80-120			
Calibration Check (P3J0206-CCV1)				Prepared &	Analyzed:	10/02/23				
Benzene	0.104	0.00100	mg/kg	0.100		104	80-120			
Toluene	0.100	0.00100	"	0.100		100	80-120			
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120			
Xylene (p/m)	0.211	0.00200	"	0.200		106	80-120			
Xylene (o)	0.0957	0.00100	"	0.100		95.7	80-120			
Surrogate: 4-Bromofluorobenzene	0.127		"	0.120		106	75-125			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		97.1	75-125			
Calibration Check (P3J0206-CCV2)				Prepared &	z Analyzed:	10/02/23				
Benzene	0.115	0.00100	mg/kg	0.100		115	80-120			
Toluene	0.109	0.00100	"	0.100		109	80-120			
Ethylbenzene	0.110	0.00100	"	0.100		110	80-120			
Xylene (p/m)	0.225	0.00200	"	0.200		112	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		98.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.126		"	0.120		105	75-125			
Calibration Check (P3J0206-CCV3)				Prepared: 1	10/02/23 A1	nalyzed: 10	/03/23			
Benzene	0.114	0.00100	mg/kg	0.100		114	80-120			
Toluene	0.109	0.00100	"	0.100		109	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.217	0.00200	"	0.200		108	80-120			
Xylene (o)	0.103	0.00100	"	0.100		103	80-120			
Surrogate: 4-Bromofluorobenzene	0.123		"	0.120		103	75-125			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.4	75-125			

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13000 West County Road 100 Odessa TX, 79765

Project: Culebra Bluff West 15 CTB

Project Number: 16949 Project Manager: Blake Estep

## BTEX by 8021B - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Rotch P3 10206 _ *** DEFAULT PREP ***										

Surrogate: 4-Bromofluorobenzene

Matrix Spike (P3J0206-MS1)	Sour	ce: 3I26011-	05	Prepared: 1	0/02/23 A	nalyzed: 10	0/03/23			
Benzene	0.103	0.00114	mg/kg dry	0.114	ND	90.8	80-120			
Toluene	0.0926	0.00114	"	0.114	ND	81.5	80-120			
Ethylbenzene	0.0909	0.00114	"	0.114	ND	80.0	80-120			
Xylene (p/m)	0.175	0.00227	"	0.227	ND	77.2	80-120			QM-05
Xylene (o)	0.0758	0.00114	"	0.114	ND	66.7	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	0.133		"	0.136		97.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.141		"	0.136		103	80-120			
Matrix Spike Dup (P3J0206-MSD1)	Sour	ce: 3I26011-	05	Prepared: 1	0/02/23 A	nalyzed: 10	0/03/23			
Benzene	0.102	0.00114	mg/kg dry	0.114	ND	89.6	80-120	1.33	20	
Toluene	0.0914	0.00114	"	0.114	ND	80.4	80-120	1.30	20	
Ethylbenzene	0.0906	0.00114	"	0.114	ND	79.7	80-120	0.300	20	QM-05
Xylene (p/m)	0.176	0.00227	"	0.227	ND	77.4	80-120	0.226	20	QM-05
Xylene (o)	0.0754	0.00114	"	0.114	ND	66.3	80-120	0.541	20	QM-05
Surrogate: 1,4-Difluorobenzene	0.133		"	0.136		97.4	80-120			

0.136

103

80-120

0.141

Project: Culebra Bluff West 15 CTB

13000 West County Road 100 Odessa TX, 79765 Project Number: 16949
Project Manager: Blake Estep

# Total Petroleum Hydrocarbons C6-C35 by TNRCC Method 1005 - Quality Control Permian Basin Environmental Lab, L.P.

Result   Climit   Units   Level   Result   WREC   Limits   RPD   Limit   Notes			Reporting		Spike	Source		%REC		RPD	
Prepared: 09/28/23   Analyzed: 09/29/23	Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
CC-C12	Batch P3I2805 - TX 1005										
C12-C28	Blank (P3I2805-BLK1)				Prepared: (	09/28/23 Aı	nalyzed: 09	/29/23			
Surrogate: I-Chlorooctane	C6-C12	ND	25.0	mg/kg							
Surrogate: 1-Chlorooctane	>C12-C28	ND	25.0	"							
Surrogate: o-Terphenyl   62.9	>C28-C35	ND	25.0	"							
Prepared: 09/28/23   Analyzed: 09/29/23	Surrogate: 1-Chlorooctane	121		"	100		121	70-130			
C6-C12	Surrogate: o-Terphenyl	62.9		"	50.0		126	70-130			
Color   Colo	LCS (P3I2805-BS1)				Prepared: (	09/28/23 Aı	nalyzed: 09	/29/23			
Surrogate: I-Chlorooctane	C6-C12	1050	25.0	mg/kg	1000		105	75-125			
Surrogate: o-Terphenyl   Sy 3   "   So 0   119   70-130	>C12-C28	988	25.0	"	1000		98.8	75-125			
Description   Surrogate: 6-Perpindin   Surrogate: 09/28/23   Analyzed: 09/29/23   Surrogate: 1-Chlorooctane   128   " 1000 128 70-130   Surrogate: 1-Chlorooctane   128   " 1000 128 70-130   Surrogate: 0-Perpindin   128   " 1000 128 70-130   Surrogate: 0-Perpindin   128   " 100 128 70-130   Surrogate: 0-Perpindin   128 70-130   Surrogate: 1-Chlorooctane   130   " 100 130 70-130   Surrogate: 0-Perpindin   130 7	Surrogate: 1-Chlorooctane	126		"	100		126	70-130			
C6-C12	Surrogate: o-Terphenyl	59.3		"	50.0		119	70-130			
C12-C28         983         25.0         "         1000         98.3         75-125         0.544         20           Surrogate: I-Chlorooctane         128         "         100         128         70-130           Surrogate: o-Terphenyl         59.8         "         50.0         120         70-130           Calibration Check (P312805-CCV1)         Prepared: 09/28/23 Analyzed: 09/29/23           C6-C12         647         25.0         mg/kg         600         108         85-115           Surrogate: I-Chlorooctane         130         "         100         130         70-130           Surrogate: o-Terphenyl         63.1         "         50.0         126         70-130           Calibration Check (P312805-CCV2)         Prepared: 09/28/23 Analyzed: 09/29/23           C6-C12         675         25.0         mg/kg         600         113         85-115           >C12-C28         666         25.0         "         600         111         85-115           Surrogate: I-Chlorooctane         137         "         100         137         70-130         8-60	LCS Dup (P3I2805-BSD1)				Prepared: (	09/28/23 Aı	nalyzed: 09	/29/23			
Surrogate: 1-Chlorooctane   128	C6-C12	1050	25.0	mg/kg	1000		105	75-125	0.128	20	
Surrogate: 1-Chlorooctane         128         160         128         76-130           Surrogate: o-Terphenyl         59.8         " 50.0         120         70-130           Calibration Check (P312805-CCV1)         Prepared: 09/28/23 Analyzed: 09/29/23           C6-C12         647         25.0 mg/kg         600         108         85-115           >C12-C28         636         25.0 " 600         106         85-115           Surrogate: 1-Chlorooctane         130         " 100         130         70-130           Surrogate: o-Terphenyl         63.1         " 50.0         126         70-130           Calibration Check (P312805-CCV2)         Prepared: 09/28/23 Analyzed: 09/29/23           C6-C12         675         25.0 mg/kg         600         113         85-115           >C12-C28         666         25.0 " 600         111         85-115           Surrogate: 1-Chlorooctane         137         " 100         137         70-130         8-6C	>C12-C28	983	25.0	"	1000		98.3	75-125	0.544	20	
Calibration Check (P312805-CCV1)         Prepared: 09/28/23 Analyzed: 09/29/23           C6-C12         647         25.0 mg/kg         600         108 85-115           >C12-C28         636         25.0 " 600         106 85-115           Surrogate: 1-Chlorooctane         130 " 100 130 70-130           Surrogate: o-Terphenyl         63.1 " 50.0 126 70-130           Calibration Check (P312805-CCV2)         Prepared: 09/28/23 Analyzed: 09/29/23           C6-C12         675 25.0 mg/kg         600 113 85-115           >C12-C28         666 25.0 " 600 111 85-115           Surrogate: 1-Chlorooctane         137 " 100 137 70-130         S-GC	Surrogate: 1-Chlorooctane	128		"	100		128	70-130			
C6-C12       647       25.0       mg/kg       600       108       85-115         >C12-C28       636       25.0       "       600       106       85-115         Surrogate: I-Chlorooctane       130       "       100       130       70-130         Surrogate: o-Terphenyl       63.1       "       50.0       126       70-130         Calibration Check (P312805-CCV2)       Prepared: 09/28/23 Analyzed: 09/29/23         C6-C12       675       25.0       mg/kg       600       113       85-115         >C12-C28       666       25.0       "       600       111       85-115         Surrogate: 1-Chlorooctane       137       "       100       137       70-130       S-GC	Surrogate: o-Terphenyl	59.8		"	50.0		120	70-130			
>C12-C28       636       25.0       "       600       106       85-115         Surrogate: I-Chlorooctane       130       "       100       130       70-130         Surrogate: o-Terphenyl       63.1       "       50.0       126       70-130         Calibration Check (P312805-CCV2)       Prepared: 09/28/23 Analyzed: 09/29/23         C6-C12       675       25.0       mg/kg       600       113       85-115         >C12-C28       666       25.0       "       600       111       85-115         Surrogate: 1-Chlorooctane       137       "       100       137       70-130       S-GC	Calibration Check (P3I2805-CCV1)				Prepared: (	09/28/23 Aı	nalyzed: 09	/29/23			
Surrogate: 1-Chlorooctane         130         "         100         130         70-130           Surrogate: o-Terphenyl         63.1         "         50.0         126         70-130           Calibration Check (P312805-CCV2)         Prepared: 09/28/23 Analyzed: 09/29/23           C6-C12         675         25.0 mg/kg         600         113         85-115           >C12-C28         666         25.0 "         600         111         85-115           Surrogate: 1-Chlorooctane         137         "         100         137         70-130         S-GC	C6-C12	647	25.0	mg/kg	600		108	85-115			
Surrogate: o-Terphenyl         63.1         " 50.0         126         70-130           Calibration Check (P312805-CCV2)         Prepared: 09/28/23 Analyzed: 09/29/23           C6-C12         675         25.0 mg/kg         600         113         85-115           >C12-C28         666         25.0 "         600         111         85-115           Surrogate: 1-Chlorooctane         137         " 100         137         70-130         8-GC	>C12-C28	636	25.0	"	600		106	85-115			
Calibration Check (P312805-CCV2)         Prepared: 09/28/23 Analyzed: 09/29/23           C6-C12         675         25.0 mg/kg         600         113         85-115           >C12-C28         666         25.0 "         600         111         85-115           Surrogate: 1-Chlorooctane         137         "         100         137         70-130         S-GC	Surrogate: 1-Chlorooctane	130		"	100		130	70-130			
C6-C12     675     25.0 mg/kg     600     113     85-115       >C12-C28     666     25.0 "     600     111     85-115       Surrogate: 1-Chlorooctane     137     "     100     137     70-130     S-GC	Surrogate: o-Terphenyl	63.1		"	50.0		126	70-130			
>C12-C28     666     25.0     "     600     111     85-115       Surrogate: 1-Chlorooctane     137     "     100     137     70-130     S-GC	Calibration Check (P3I2805-CCV2)				Prepared: (	09/28/23 Aı	nalyzed: 09	/29/23			
Surrogate: 1-Chlorooctane         137         "         100         137         70-130         S-GC	C6-C12	675	25.0	mg/kg	600		113	85-115			
Surrogue. 1-Chioroocume 13/ 100 15/ /0-150 5-0C	>C12-C28	666	25.0	"	600		111	85-115			
Surrogate: o-Terphenyl 63.9 " 50.0 128 70-130	Surrogate: 1-Chlorooctane	137		"	100		137	70-130			S-GC
	Surrogate: o-Terphenyl	63.9		"	50.0		128	70-130			

Permian Basin Environmental Lab, L.P.

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13000 West County Road 100 Project Number: 16949
Odessa TX, 79765 Project Manager: Blake Estep

Total Petroleum Hydrocarbons C6-C35 by TNRCC Method 1005 - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Project: Culebra Bluff West 15 CTB

#### Batch P3I2805 - TX 1005

Duplicate (P3I2805-DUP1)	Source	: 3I26014-02	Prepared: 09/28/23	Analyzed: 09	0/29/23		
C6-C12	ND	27.5 mg/kg dry	18.6				20
>C12-C28	69.6	27.5 "	71.1			2.11	20
Surrogate: 1-Chlorooctane	123	"	110	112	70-130		
Surrogate: o-Terphenyl	65.9	"	54.9	120	70-130		

Project Number: 16949
Project Manager: Blake Estep

13000 West County Road 100 Odessa TX, 79765

# General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

Project: Culebra Bluff West 15 CTB

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P3I2703 - *** DEFAULT PREP ***										
Blank (P3I2703-BLK1)				Prepared &	Analyzed:	09/27/23				
% Moisture	ND	0.1	%							
Blank (P3I2703-BLK2)				Prepared &	Analyzed:	09/27/23				
% Moisture	ND	0.1	%							
Blank (P3I2703-BLK3)				Prepared &	Analyzed:	09/27/23				
% Moisture	ND	0.1	%							
Blank (P3I2703-BLK4)				Prepared &	Analyzed:	09/27/23				
% Moisture	ND	0.1	%							
Blank (P3I2703-BLK5)				Prepared &	Analyzed:	09/27/23				
% Moisture	ND	0.1	%							
Blank (P3I2703-BLK6)				Prepared &	Analyzed:	09/27/23				
% Moisture	ND	0.1	%							
Duplicate (P3I2703-DUP1)	Sou	rce: 3I26002-1	0	Prepared &	Analyzed:	09/27/23				
% Moisture	15.0	0.1	%		11.0			30.8	20	R3
Duplicate (P3I2703-DUP2)	Sou	rce: 3I26002-2	0	Prepared &	Analyzed:	09/27/23				
% Moisture	9.0	0.1	%		10.0			10.5	20	
Duplicate (P3I2703-DUP3)	Sou	rce: 3I26006-0	1	Prepared &	Analyzed:	09/27/23				
% Moisture	11.0	0.1	%		10.0			9.52	20	
Duplicate (P3I2703-DUP4)	Sou	rce: 3I26006-1	1	Prepared &	Analyzed:	09/27/23				
% Moisture	18.0	0.1	%		18.0			0.00	20	

Project: Culebra Bluff West 15 CTB Project Number: 16949

13000 West County Road 100 Odessa TX, 79765

Project Number: 16949
Project Manager: Blake Estep

# General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3I2703 - *** DEFAULT PREP ***										
Duplicate (P3I2703-DUP5)	Sour	rce: 3126009-0	2	Prepared &	: Analyzed:	09/27/23				
% Moisture	4.0	0.1	%		2.0			66.7	20	R3
Duplicate (P3I2703-DUP6)	Sour	rce: 3I26011-0	8	Prepared &	Analyzed:	09/27/23				
% Moisture	8.0	0.1	%		9.0			11.8	20	
Duplicate (P3I2703-DUP7)	Sour	rce: 3I26013-0	2	Prepared &	: Analyzed:	09/27/23				
% Moisture	11.0	0.1	%	-	11.0			0.00	20	
Duplicate (P3I2703-DUP8)	Sour	rce: 3I26014-0	8	Prepared &	: Analyzed:	09/27/23				
% Moisture	13.0	0.1	%		14.0			7.41	20	
Duplicate (P3I2703-DUP9)	Sour	rce: 3I26017-0	1	Prepared &	Analyzed:	09/27/23				
% Moisture	1.0	0.1	%		1.0			0.00	20	
Duplicate (P3I2703-DUPA)	Sour	rce: 3I26022-0	1	Prepared & Analyzed: 09/27/23						
% Moisture	4.0	0.1	%		4.0			0.00	20	
Batch P3I2903 - *** DEFAULT PREP ***										
Blank (P312903-BLK1)				Prepared: (	19/29/23 A	nalyzed: 09	/30/23			
Chloride	ND	1.00	mg/kg	•						
LCS (P3I2903-BS1)				Prepared: (	9/29/23 A	nalyzed: 09	/30/23			
Chloride	15.3		mg/kg	16.0		95.5	90-110			
Calibration Check (P3I2903-CCV1)				Prepared: (	9/29/23 A	nalyzed: 09	/30/23			
Chloride	16.0		mg/kg	16.0		100	90-110			

13000 West County Road 100 Project Number: 16949 Odessa TX, 79765

Project Manager: Blake Estep

## General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

Project: Culebra Bluff West 15 CTB

				~	~					
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P3I2903 - *** DEFAULT PREP ***										
Calibration Check (P3I2903-CCV2)				Prepared: (	09/29/23 A	Analyzed: 09	/30/23			
Chloride	17.0		mg/kg	16.0		106	90-110			
Matrix Spike (P3I2903-MS1)	Sour	ce: 3I26011-0	)1	Prepared: (	09/29/23 A	Analyzed: 09	/30/23			
Chloride	120		mg/kg	100	21.3	99.2	80-120			
Matrix Spike (P3I2903-MS2)	Sour	ce: 3I26014-1	11	Prepared: (	09/29/23 A	Analyzed: 09	/30/23			
Chloride	140		mg/kg	100	49.9	89.9	80-120			
Matrix Spike Dup (P3I2903-MSD1)	Sour	ce: 3I26011-0	)1	Prepared: (	09/29/23 A	Analyzed: 09	/30/23			
Chloride	120		mg/kg	100	21.3	98.3	80-120	0.783	20	
Matrix Spike Dup (P3I2903-MSD2)	Sour	ce: 3I26014-1	11	Prepared: (	09/29/23 A	Analyzed: 09	/30/23			
Chloride	145		mg/kg	100	49.9	94.6	80-120	3.31	20	

E Tech Environmental & Safety Solutions, Inc. [1] Project: Culebra Bluff West 15 CTB

13000 West County Road 100Project Number: 16949Odessa TX, 79765Project Manager: Blake Estep

#### **Notes and Definitions**

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

R3 The RPD exceeded the acceptance limit due to sample matrix effects.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were

within acceptance limits showing that the laboratory is in control and the data is acceptable.

BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

	Drew	Devicor		
Report Approved By:			Date:	10/5/2023

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

E Tech Environmental & Safety Solutions, Inc. [1] Project: Culebra Bluff West 15 CTB

13000 West County Road 100 Project Number: 16949
Odessa TX, 79765 Project Manager: Blake Estep

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

BELAB Permian Basin Environmental Lab. LP

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erati	y Co	Custody seals on container Custody seals on cooler(s) Sample Hand Delivered	Laboratory Comments: Sample Containers Intact? VOCs Free of Headspace?													SAR / ESP / CEC	_	TOTAL :					Pro	
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STANDARD TAT

Report to:
Abraham Valladares







5796 U.S. Hwy 64 Farmington, NM 87401

Phone: (505) 632-1881 Envirotech-inc.com





# envirotech

Practical Solutions for a Better Tomorrow

# **Analytical Report**

Chevron

Project Name: Culebra Bluff West 15 CTB

Work Order: E410124

Job Number: 23077-0001

Received: 10/14/2024

Revision: 3

Report Reviewed By:

Walter Hinchman Laboratory Director 10/22/24

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.

Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.

Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.

Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 10/22/24

Abraham Valladares 322 Road 3100 Aztec, NM 87410

Project Name: Culebra Bluff West 15 CTB

Workorder: E410124

Date Received: 10/14/2024 8:00:00AM

Abraham Valladares,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/14/2024 8:00:00AM, under the Project Name: Culebra Bluff West 15 CTB.

The analytical test results summarized in this report with the Project Name: Culebra Bluff West 15 CTB apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman

Laboratory Director Office: 505-632-1881 Cell: 775-287-1762

whinchman@envirotech-inc.com

Raina Schwanz

Laboratory Administrator Office: 505-632-1881

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Michelle Gonzales

Client Representative

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mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com



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## **Sample Summary**

Chevron	Project Name:	Culebra Bluff West 15 CTB	Donoutoda
322 Road 3100	Project Number:	23077-0001	Reported:
Aztec NM, 87410	Project Manager:	Abraham Valladares	10/22/24 16:41

Client Sample ID	Lab Sample ID Matrix	Sampled	Received	Container
BH01 0.5'	E410124-01A Soil	10/10/24	10/14/24	Glass Jar, 2 oz.
BH01 1'	E410124-02A Soil	10/10/24	10/14/24	Glass Jar, 2 oz.
BH02 0.5'	E410124-03A Soil	10/10/24	10/14/24	Glass Jar, 2 oz.
BH03 0.5'	F410124-04A Soil	10/10/24	10/14/24	Glass Jar, 2 oz.



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Case	N	ara	tiv:	ρ.
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Project Name: Culebra Bluff West 15 CTB

Workorder:E410124

Date Received: 10/14/24 08:00

The client requested the following sample(s) to be re-extracted and re-analyzed:

<u>Sample Name</u> <u>Laboratory ID</u> <u>Analysis</u>

BH01 @ 1' E410124-02 300.0 Chloride

The analytical test results summarized in this revised report represent this re-extration and re-analysis.

If you have any questions reguarding this report please feel free to contact Envirotech Inc.

Respectfully,

Walter Hinchman

Chevron	Project Name:	Culebra Bluff West 15 CTB	
322 Road 3100	Project Number:	23077-0001	Reported:
Aztec NM, 87410	Project Manager:	Abraham Valladares	10/22/2024 4:41:54PM

## BH01 0.5' E410124-01

	L-110124-01					
Result	Reporting Limit		ıtion	Prepared	Analyzed	Notes
mg/kg	mg/kg		Analyst:	RKS		Batch: 2442006
ND	0.0250	1	1	10/14/24	10/15/24	
ND	0.0250	1	l	10/14/24	10/15/24	
ND	0.0250	1	1	10/14/24	10/15/24	
ND	0.0250	1	l	10/14/24	10/15/24	
ND	0.0500	1	1	10/14/24	10/15/24	
ND	0.0250	1	1	10/14/24	10/15/24	
	98.0 %	70-130		10/14/24	10/15/24	
	104 %	70-130		10/14/24	10/15/24	
	103 %	70-130		10/14/24	10/15/24	
mg/kg	mg/kg		Analyst:	RKS		Batch: 2442006
ND	20.0	1	l	10/14/24	10/15/24	
	98.0 %	70-130		10/14/24	10/15/24	
	104 %	70-130		10/14/24	10/15/24	
	103 %	70-130		10/14/24	10/15/24	
mg/kg	mg/kg		Analyst:	AF		Batch: 2442028
ND	25.0	1	1	10/14/24	10/15/24	
ND	50.0	1	1	10/14/24	10/15/24	
	186 %	50-200		10/14/24	10/15/24	
mg/kg	mg/kg		Analyst:	IY		Batch: 2442019
	mg/kg ND	Result         Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           ND         0.0250           98.0 %         104 %           103 %         mg/kg           ND         20.0           98.0 %         104 %           103 %         mg/kg           mg/kg         mg/kg           ND         25.0           ND         50.0	mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           98.0 %         70-130           104 %         70-130           103 %         70-130           mg/kg         mg/kg           ND         20.0           98.0 %         70-130           104 %         70-130           103 %         70-130           mg/kg         mg/kg           ND         25.0           ND         50.0	Result         Limit         Dilution           mg/kg         mg/kg         Analyst:           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           98.0 %         70-130           104 %         70-130           mg/kg         mg/kg         Analyst:           ND         20.0         1           98.0 %         70-130         104 %           104 %         70-130         104 %           103 %         70-130         104 %           103 %         70-130         104 %           103 %         70-130         104 %           103 %         70-130         104 %           103 %         70-130         104 %           103 %         70-130         104 %           104 %         70-130         104 %           105 %         70-130         104 %           107 %         70-130         104 %           108 %         70-130         104 % </td <td>Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/14/24           ND         0.0250         1         10/14/24           ND         0.0250         1         10/14/24           ND         0.0500         1         10/14/24           ND         0.0250         1         10/14/24           ND         0.0250         1         10/14/24           104 %         70-130         10/14/24           103 %         70-130         10/14/24           103 %         70-130         10/14/24           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/14/24           104 %         70-130         10/14/24           103 %         70-130         10/14/24           103 %         70-130         10/14/24           103 %         70-130         10/14/24           103 %         70-130         10/14/24           103 %         70-130         10/14/24           103 %         70-130         10/14/24           ND         25.0         <td< td=""><td>Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           ND         0.0500         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           104 %         70-130         10/14/24         10/15/24           103 %         70-130         10/14/24         10/15/24           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/14/24         10/15/24           103 %         70-130         10/14/24         10/15/24           103 %         70-130         10/14/24         10/15/24           103 %         70-130         10/14/24         10/15/24           103 %         70-130</td></td<></td>	Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/14/24           ND         0.0250         1         10/14/24           ND         0.0250         1         10/14/24           ND         0.0500         1         10/14/24           ND         0.0250         1         10/14/24           ND         0.0250         1         10/14/24           104 %         70-130         10/14/24           103 %         70-130         10/14/24           103 %         70-130         10/14/24           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/14/24           104 %         70-130         10/14/24           103 %         70-130         10/14/24           103 %         70-130         10/14/24           103 %         70-130         10/14/24           103 %         70-130         10/14/24           103 %         70-130         10/14/24           103 %         70-130         10/14/24           ND         25.0 <td< td=""><td>Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           ND         0.0500         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           104 %         70-130         10/14/24         10/15/24           103 %         70-130         10/14/24         10/15/24           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/14/24         10/15/24           103 %         70-130         10/14/24         10/15/24           103 %         70-130         10/14/24         10/15/24           103 %         70-130         10/14/24         10/15/24           103 %         70-130</td></td<>	Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           ND         0.0500         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           ND         0.0250         1         10/14/24         10/15/24           104 %         70-130         10/14/24         10/15/24           103 %         70-130         10/14/24         10/15/24           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/14/24         10/15/24           103 %         70-130         10/14/24         10/15/24           103 %         70-130         10/14/24         10/15/24           103 %         70-130         10/14/24         10/15/24           103 %         70-130



ChevronProject Name:Culebra Bluff West 15 CTB322 Road 3100Project Number:23077-0001Reported:Aztec NM, 87410Project Manager:Abraham Valladares10/22/2024 4:41:54PM

### BH01 1' E410124-02

		Reporting					
Analyte	Result	Limit	Dilu	ıtion	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg		Analyst: RK			Batch: 2442006
Benzene	ND	0.0250	1	1	10/14/24	10/15/24	
Ethylbenzene	ND	0.0250	1	1	10/14/24	10/15/24	
Toluene	ND	0.0250	1	1	10/14/24	10/15/24	
o-Xylene	ND	0.0250	1	1	10/14/24	10/15/24	
p,m-Xylene	ND	0.0500	1	1	10/14/24	10/15/24	
Total Xylenes	ND	0.0250	1	1	10/14/24	10/15/24	
Surrogate: Bromofluorobenzene		96.7 %	70-130		10/14/24	10/15/24	
Surrogate: 1,2-Dichloroethane-d4		99.6 %	70-130		10/14/24	10/15/24	
Surrogate: Toluene-d8		100 %	70-130		10/14/24	10/15/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg mg/kg		Analyst:	RKS		Batch: 2442006
Gasoline Range Organics (C6-C10)	ND	20.0	1	1	10/14/24	10/15/24	
Surrogate: Bromofluorobenzene		96.7 %	70-130		10/14/24	10/15/24	
Surrogate: 1,2-Dichloroethane-d4		99.6 %	70-130		10/14/24	10/15/24	
Surrogate: Toluene-d8		100 %	70-130		10/14/24	10/15/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg		Analyst:	AF		Batch: 2442028
Diesel Range Organics (C10-C28)	ND	25.0	1	1	10/14/24	10/15/24	
Oil Range Organics (C28-C36)	ND	50.0	1	1	10/14/24	10/15/24	
Surrogate: n-Nonane		106 %	50-200		10/14/24	10/15/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg		Analyst:	IY		Batch: 2443022
Chloride	618	20.0	1	1	10/21/24	10/21/24	



Chevron	Project Name:	Culebra Bluff West 15 CTB	
322 Road 3100	Project Number:	23077-0001	Reported:
Aztec NM, 87410	Project Manager:	Abraham Valladares	10/22/2024 4:41:54PM

### BH02 0.5' E410124-03

		L-110124-05				
Analyte	Result	Reporting Limit	Dilut	tion Prep	ared Analyze	d Notes
Allaryte	Result	Limit	Dilui	поп гтер	areu Anaryze	d Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	I	Analyst: RKS		Batch: 2442006
Benzene	ND	0.0250	1	10/14	4/24 10/15/24	4
Ethylbenzene	ND	0.0250	1	10/14	4/24 10/15/24	4
Toluene	ND	0.0250	1	10/14	4/24 10/15/24	4
o-Xylene	ND	0.0250	1	10/14	4/24 10/15/24	4
p,m-Xylene	ND	0.0500	1	10/14	4/24 10/15/24	4
Total Xylenes	ND	0.0250	1	10/14	4/24 10/15/24	4
Surrogate: Bromofluorobenzene		97.9 %	70-130	10/1-	4/24 10/15/24	4
Surrogate: 1,2-Dichloroethane-d4		95.4 %	70-130	10/1	4/24 10/15/2-	4
Surrogate: Toluene-d8		101 %	70-130	10/1-	4/24 10/15/24	4
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	A	Analyst: RKS		Batch: 2442006
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/1	4/24 10/15/24	4
Surrogate: Bromofluorobenzene		97.9 %	70-130	10/1-	4/24 10/15/2	4
Surrogate: 1,2-Dichloroethane-d4		95.4 %	70-130	10/1	4/24 10/15/24	4
Surrogate: Toluene-d8		101 %	70-130	10/1-	4/24 10/15/24	4
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	A	Analyst: AF		Batch: 2442028
Diesel Range Organics (C10-C28)	ND	25.0	1	10/14	4/24 10/15/24	4
Oil Range Organics (C28-C36)	ND	50.0	1	10/14	4/24 10/15/24	4
Surrogate: n-Nonane		107 %	50-200	10/1-	4/24 10/15/2-	4
Anions by EPA 300.0/9056A	mg/kg	mg/kg		Analyst: IY		Batch: 2442019
Chloride	570	20.0	1	10/14	4/24 10/15/24	4



ChevronProject Name:Culebra Bluff West 15 CTB322 Road 3100Project Number:23077-0001Reported:Aztec NM, 87410Project Manager:Abraham Valladares10/22/2024 4:41:54PM

### BH03 0.5' E410124-04

		211012101					
Analyte	Result	Reporting Limit		lution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg		Analyst:	RKS	<u> </u>	Batch: 2442006
Benzene	ND	0.0250		1	10/14/24	10/15/24	
Ethylbenzene	ND	0.0250		1	10/14/24	10/15/24	
Toluene	ND	0.0250		1	10/14/24	10/15/24	
o-Xylene	ND	0.0250		1	10/14/24	10/15/24	
p,m-Xylene	ND	0.0500		1	10/14/24	10/15/24	
Total Xylenes	ND	0.0250		1	10/14/24	10/15/24	
Surrogate: Bromofluorobenzene		97.0 %	70-130		10/14/24	10/15/24	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130		10/14/24	10/15/24	
Surrogate: Toluene-d8		102 %	70-130		10/14/24	10/15/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg		Analyst:	RKS		Batch: 2442006
Gasoline Range Organics (C6-C10)	ND	20.0		1	10/14/24	10/15/24	
Surrogate: Bromofluorobenzene		97.0 %	70-130		10/14/24	10/15/24	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130		10/14/24	10/15/24	
Surrogate: Toluene-d8		102 %	70-130		10/14/24	10/15/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg		Analyst	AF		Batch: 2442028
Diesel Range Organics (C10-C28)	ND	25.0		1	10/14/24	10/15/24	
Oil Range Organics (C28-C36)	ND	50.0		1	10/14/24	10/15/24	
Surrogate: n-Nonane		109 %	50-200		10/14/24	10/15/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg		Analyst:	: IY		Batch: 2442019
Chloride	293	20.0		1	10/14/24	10/15/24	



# **QC Summary Data**

Chevron Project Name: Culebra Bluff West 15 CTB Reported:
322 Road 3100 Project Number: 23077-0001
Aztec NM, 87410 Project Manager: Abraham Valladares 10/22/2024 4:41:54PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

	V	olatile Organ	ic Compo	unds by EI	PA 82601	В		A	nalyst: RKS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2442006-BLK1)							Prepared:	10/14/24 Ana	lyzed: 10/15/24
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.487		0.500		97.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.529		0.500		106	70-130			
Surrogate: Toluene-d8	0.514		0.500		103	70-130			
LCS (2442006-BS1)							Prepared:	10/14/24 Ana	lyzed: 10/15/24
Benzene	2.35	0.0250	2.50		94.1	70-130			
Ethylbenzene	2.52	0.0250	2.50		101	70-130			
Toluene	2.42	0.0250	2.50		96.9	70-130			
o-Xylene	2.53	0.0250	2.50		101	70-130			
p,m-Xylene	5.07	0.0500	5.00		101	70-130			
Total Xylenes	7.60	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.485		0.500		96.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.497		0.500		99.4	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			
Matrix Spike (2442006-MS1)				Sourc	e: E41011	9-04	Prepared:	10/14/24 Ana	lyzed: 10/15/24
Benzene	2.41	0.0250	2.50	ND	96.5	48-131			
Ethylbenzene	2.56	0.0250	2.50	ND	102	45-135			
Toluene	2.48	0.0250	2.50	ND	99.2	48-130			
o-Xylene	2.51	0.0250	2.50	ND	100	43-135			
p,m-Xylene	5.02	0.0500	5.00	ND	100	43-135			
Total Xylenes	7.52	0.0250	7.50	ND	100	43-135			
Surrogate: Bromofluorobenzene	0.482		0.500		96.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.511		0.500		102	70-130			
Matrix Spike Dup (2442006-MSD1)				Sourc	e: E41011	9-04	Prepared:	10/14/24 Ana	lyzed: 10/15/24
Benzene	2.42	0.0250	2.50	ND	96.7	48-131	0.248	23	
Ethylbenzene	2.53	0.0250	2.50	ND	101	45-135	1.04	27	
Toluene	2.46	0.0250	2.50	ND	98.6	48-130	0.607	24	
o-Xylene	2.53	0.0250	2.50	ND	101	43-135	1.05	27	
p,m-Xylene	5.10	0.0500	5.00	ND	102	43-135	1.71	27	
Total Xylenes	7.64	0.0250	7.50	ND	102	43-135	1.49	27	
Surrogate: Bromofluorobenzene	0.483		0.500		96.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.505		0.500		101	70-130			
=									



0.500

0.508

102

70-130

Surrogate: Toluene-d8

Surrogate: Toluene-d8

# **QC Summary Data**

ChevronProject Name:Culebra Bluff West 15 CTBReported:322 Road 3100Project Number:23077-0001Aztec NM, 87410Project Manager:Abraham Valladares10/22/2024 4:41:54PM

Aztec NM, 87410		Project Number: Project Manager		077-0001 oraham Vallad	lares			10/	22/2024 4:41:54PM
	Non	halogenated (	Organics l	by EPA 801	15D - G	RO			Analyst: RKS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2442006-BLK1)							Prepared:	10/14/24 Ar	nalyzed: 10/15/24
Gasoline Range Organics (C6-C10)	ND	20.0							
Gurrogate: Bromofluorobenzene	0.487		0.500		97.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.529		0.500		106	70-130			
Surrogate: Toluene-d8	0.514		0.500		103	70-130			
LCS (2442006-BS2)							Prepared:	10/14/24 Ar	nalyzed: 10/15/24
Gasoline Range Organics (C6-C10)	54.5	20.0	50.0		109	70-130			
Surrogate: Bromofluorobenzene	0.505		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.489		0.500		97.7	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			
Matrix Spike (2442006-MS2)				Source	e: E41011	9-04	Prepared:	10/14/24 Ar	nalyzed: 10/15/24
Gasoline Range Organics (C6-C10)	54.6	20.0	50.0	ND	109	70-130			
Gurrogate: Bromofluorobenzene	0.502		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.505		0.500		101	70-130			
Surrogate: Toluene-d8	0.516		0.500		103	70-130			
Matrix Spike Dup (2442006-MSD2)				Source	e: E41011	9-04	Prepared:	10/14/24 Ar	nalyzed: 10/15/24
Gasoline Range Organics (C6-C10)	53.6	20.0	50.0	ND	107	70-130	1.75	20	
Surrogate: Bromofluorobenzene	0.492		0.500		98.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.469		0.500		93.8	70-130			

0.500

0.514

103

70-130



# **QC Summary Data**

Chevron	Project Name:	Culebra Bluff West 15 CTB	Reported:
322 Road 3100	Project Number:	23077-0001	•
Aztec NM, 87410	Project Manager:	Abraham Valladares	10/22/2024 4:41:54PM

Aztec NM, 87410		Project Manage	r: Al	oraham Vallac	lares			10/2	2/2024 4:41:54PM
	Nonha	logenated Or	ganics by	EPA 8015I	) - DRO	/ORO		I	Analyst: NV
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2442028-BLK1)							Prepared:	10/14/24 Ana	llyzed: 10/14/24
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.5		50.0		91.1	50-200			
LCS (2442028-BS1)							Prepared:	10/14/24 Ana	lyzed: 10/14/24
Diesel Range Organics (C10-C28)	249	25.0	250		99.6	38-132			
Surrogate: n-Nonane	48.9		50.0		97.7	50-200			
Matrix Spike (2442028-MS1)				Sourc	e: E41012	0-01	Prepared:	10/14/24 Ana	lyzed: 10/14/24
Diesel Range Organics (C10-C28)	273	25.0	250	ND	109	38-132			
Surrogate: n-Nonane	54.7		50.0		109	50-200			
Matrix Spike Dup (2442028-MSD1)				Sourc	e: E41012	0-01	Prepared:	10/14/24 Ana	lyzed: 10/14/24
Diesel Range Organics (C10-C28)	295	25.0	250	ND	118	38-132	8.00	20	
Surrogate: n-Nonane	57.4		50.0		115	50-200			

# **QC Summary Data**

Chevron 322 Road 3100	Project Name: Project Number:	Culebra Bluff West 15 CTB 23077-0001	Reported:
Aztec NM, 87410	Project Manager:	Abraham Valladares	10/22/2024 4:41:54PM

Aztec NM, 87410		Project Manager	r: Al	braham Vallad	dares			10/	22/2024 4:41:54PM
		Anions	by EPA 3	00.0/9056	4				Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2442019-BLK1)							Prepared:	10/14/24 An	nalyzed: 10/14/24
Chloride	ND	20.0							
LCS (2442019-BS1)							Prepared:	10/14/24 An	nalyzed: 10/14/24
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2442019-MS1)				Sourc	e: E41011	8-03	Prepared:	10/14/24 An	nalyzed: 10/14/24
Chloride	586	200	250	347	95.9	80-120			
Matrix Spike Dup (2442019-MSD1)				Sourc	e: E41011	8-03	Prepared:	10/14/24 An	nalyzed: 10/14/24
Chloride	595	200	250	347	99.5	80-120	1.53	20	

Chloride

M4

# **QC Summary Data**

Chevron 322 Road 3100		Project Name: Project Number:		Culebra Bluff V 23077-0001	Vest 15 CT	В			Reported:
Aztec NM, 87410		Project Manager	:: 1	Abraham Valla	dares			10	0/22/2024 4:41:54PM
		Anions	by EPA	300.0/9056	A				Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2443022-BLK1)							Prepared:	10/21/24 A	.nalyzed: 10/21/24
Chloride	ND	20.0							
LCS (2443022-BS1)							Prepared:	10/21/24 A	nalyzed: 10/21/24
Chloride	256	20.0	250		103	90-110			
Matrix Spike (2443022-MS1)				Source	e: E41023	1-02	Prepared:	10/21/24 A	nalyzed: 10/21/24
Chloride	6410	200	250	6020	158	80-120			M4
Matrix Spike Dup (2443022-MSD1)				Sourc	e: E41023	1-02	Prepared:	10/21/24 A	nalyzed: 10/21/24

250

200

6020

185

80-120

1.08

#### QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## **Definitions and Notes**

	Chevron	Project Name:	Culebra Bluff West 15 CTB	
l	322 Road 3100	Project Number:	23077-0001	Reported:
l	Aztec NM, 87410	Project Manager:	Abraham Valladares	10/22/24 16:41

M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The

associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



**Project Information** 

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CI: C	Laura IICA I				Test	Bill To			a Musical P	1 -	h Hen	0.1			1		T/	١T		EDA D	rogram
	hevron USA, I	The second secon				2111.13			111011	11 - 12 - 12 - 12 - 12	b Use	100 -0110	y Numb	0.5	1D	lan	3D		andard	CWA	SDWA
	ame: Amy Bari Manager: Abra		ladaros			ention: Joseph Hernandez dress: 13000 W County Rd 100		Lab	WO#	124	1 1			Jam.	10	20	30		lay TAT	CVVA	JUVA
	Culebra Bluff	A CONTRACTOR OF THE PARTY OF TH	11000-0000-000		P. 100 (1)	, State, Zip: Odessa, TX 79765		L	10	16				Method	4			3.0			RCRA
-	oject #: 16949	The second of the second	CID			one: (432)563-2200		+-	1>	T	$\frac{1}{1}$	laiys	T	Wicthoo	T						T.C.I.
	432)305-6413						) otoshonu som	-	ROE		ll									State	
	pevalladares@		v com			ail: erick@etechenv.com, joseph@ npany Name: Etech Environmental &		$\dashv$	0/0	552			0		5				NM CO	7/25-25-27 (CA)	TX
AND DESCRIPTION OF THE PARTY OF	d by: Arturo D		v.com			dent ID: nAPP2226533583	Sarety Solutions	$\dashv$	/DRC	8021	260	010	300		Σ		¥		11111	0.7.1.	
Time			No. of	lago son con-	I	delic ib. IIAI 1 2220333303	Lab Numbe	h(ft	GRO	à	VOC by 8260	als 6	ride		00		ည			/A_000000000000000000000000000000000000	
Sampled	Date Sampled	Matrix	Containers	Sample ID				Depth(ft.)	TPH GRO/DRO/ORO by	BTEX by 8021	VOC	Metals 6010	Chloride 300.0		BGDOC		GDOC			Remarks	
10:04	10/10/2024	S	1			BH01	1	0.5	i l						Х						
10:06	10/10/2024	S	1			BH01	2	1'							Х						
10:08	10/10/2024	S	1			BH02	3	0.5							Х						
10:10	10/10/2024	S	1			вноз	4	0.5							Х						
Addition	nal Instruction	ıs:																			
	pler), attest to the				legal action.	nat tampering with or intentionally mislabel Sampled by:	EK	ation,											ed on ice the d han 6 °C on su		
Relinguish	ed by: (Signature	)	10 ·	-10-24	ime 10:76	Periver by High a Cure on gales	Date 10-11-24	¥	Time	036		Rece	eived	on ice:		ab Us	se Or	nly			
Relinquish	ed by/(Signature	nzale	Date	1	ime 11,35	Received by: (Signature)	Date Date		Time	700		T1			T2	,			T3		
Relinquish	ed by: (Signature	)	Date		7.400	Regelied by: (fignature)	Date 10.14.2	4		ζα		AVG	Tem	o °C	4						
Sample Mat	trix: S - Soil, Sd - Sol	id, Sg - Slude			0 100	0	Container Ty								SS, V	- VOA	1				
					d unless othe	r arrangements are made. Hazardous												t for t	the analysis	of the abo	ove
						this COC. The liability of the laborator															



Printed: 10/14/2024 10:34:21AM

### **Envirotech Analytical Laboratory**

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Chevron	Date Received:	10/14/24 08	.00		Work Order ID:	E410124
Phone:	432-305-6413	Date Logged In:	10/11/24 14			Logged In By:	Caitlin Mars
Email:	abevalladares@etechenv.com	Due Date:	10/18/24 17	:00 (4 day TAT)			
Chain of	Custody (COC)						
1. Does tl	ne sample ID match the COC?		Yes				
2. Does tl	ne number of samples per sampling site location ma	tch the COC	Yes				
3. Were s	amples dropped off by client or carrier?		Yes	Carrier: Co	ourier		
4. Was th	e COC complete, i.e., signatures, dates/times, reque	sted analyses?	Yes				
5. Were a	Il samples received within holding time?		Yes				
	Note: Analysis, such as pH which should be conducted i					Comment	s/Resolution
Commis 7	i.e, 15 minute hold time, are not included in this disucssi	on.		Г		<u>commun</u>	<u> </u>
	Curn Around Time (TAT)		Yes				
	e COC indicate standard TAT, or Expedited TAT?		168				
Sample C	sample cooler received?		Yes				
	was cooler received in good condition?		Yes				
•	•						
	e sample(s) received intact, i.e., not broken?		Yes				
	custody/security seals present?		No				
•	, were custody/security seals intact?		NA				
12. Was th	e sample received on ice? If yes, the recorded temp is 4°C Note: Thermal preservation is not required, if samples ar minutes of sampling		Yes				
13. If no	visible ice, record the temperature.  Actual sample	temperature: 4°0	<u>C</u>				
Sample (	<u>Container</u>						
14. Are a	queous VOC samples present?		No				
15. Are V	OC samples collected in VOA Vials?		NA				
16. Is the	head space less than 6-8 mm (pea sized or less)?		NA				
17. Was a	trip blank (TB) included for VOC analyses?		NA				
18. Are n	on-VOC samples collected in the correct containers	?	Yes				
19. Is the	appropriate volume/weight or number of sample contai	ners collected?	Yes				
Field Lal	<u>oel</u>						
20. Were	field sample labels filled out with the minimum infe	ormation:					
	ample ID?		Yes				
	ate/Time Collected? follectors name?		Yes	_			
	Preservation		Yes				
	the COC or field labels indicate the samples were p	reserved?	No				
	ample(s) correctly preserved?	reserved:	NA				
	filteration required and/or requested for dissolved r	netals?	No				
	ise Sample Matrix						
-	the sample have more than one phase, i.e., multipha	ise?	No				
	, does the COC specify which phase(s) is to be anal		NA				
		y zod.	INA				
	act Laboratory		3.7				
	amples required to get sent to a subcontract laborate	•	No		3.7.4		
29. was a	subcontract laboratory specified by the client and i	i so wno?	NA S	Subcontract Lab:	: NA		
Client I	<u>istruction</u>						

Date

# **APPENDIX F**

Correspondence & Notifications

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213





#### **RE:** [EXTERNAL] Confirmation Sampling

From Buchanan, Michael, EMNRD < Michael.Buchanan@emnrd.nm.gov>

Date Fri 6/30/2023 2:41 PM

You don't often get email from michael.buchanan@emnrd.nm.gov. Learn why this is important

Received.

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file. Have a great weekend as well, and Happy  $4^{th}$ !

Mike Buchanan • Environmental Specialist

Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE | Albuquerque, NM 87113
| michael.buchanan@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd



From: Blake Estep <br/> <br/>blake@etechenv.com><br/>
Sent: Friday, June 30, 2023 12:29 PM

To: Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Subject: [EXTERNAL] Confirmation Sampling

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon,

Chevron anticipates conducting confirmation soil sampling activities at the following sites between July 5-7, 2023:

Site Name: Culebra Bluff Section 26 Compressor Station

Incident Number: nAPP2300944487

Site Name: Culebra Bluff West 15 CTB Incident Number: nAPP2226533583

Have a great weekend and 4<sup>th</sup> of July!

Thank you,

Blake Estep Etech Environmental & Safety Solutions, Inc. P.O. Box 62228 Midland, Texas 79711

Phone: <u>432-563-2200</u> Mobile: <u>432-894-6038</u> Fax: <u>432-563-2213</u>



#### **RE:** [EXTERNAL] Confirmation Sampling

From Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>

Date Fri 9/15/2023 9:10 AM

To Blake Estep <br/> <br/>blake@etechenv.com>

Cc Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>

You don't often get email from scott.rodgers@emnrd.nm.gov. Learn why this is important

The OCD has received your notification. When reporting sampling at multiple locations it is required to provide and date and time for each location. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks, Scott

Scott Rodgers • Environmental Specialist

Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | <a href="mailto:scott.rodgers@emnrd.nm.gov">scott.rodgers@emnrd.nm.gov</a>
<a href="mailto:http://www.emnrd.nm.gov/ocd">http://www.emnrd.nm.gov/ocd</a>



From: Blake Estep <br/> <br/>blake@etechenv.com><br/>
Sent: Friday, September 15, 2023 6:40 AM

To: Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Subject: [EXTERNAL] Confirmation Sampling

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning,

Chevron plans to conduct confirmation sampling at the following sites next week between September 19-22, 2023:

Principle 1 & 2 Battery Incident # nPAC0626336095

Culebra Bluff West 15 CTB Incident # nAPP2226533583

Thank you,

Blake Estep Etech Environmental & Safety Solutions, Inc. P.O. Box 62228 Midland, Texas 79711

Phone: <u>432-563-2200</u> Mobile: 432-894-6038 Fax: 432-563-2213

<u>District I</u> 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

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 390559

#### **QUESTIONS**

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	390559
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

#### QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2226533583
Incident Name	NAPP2226533583 CULEBRA BLUFF WEST 15 CTB @ 0
Incident Type	Produced Water Release
Incident Status	Initial C-141 Approved

Location of Release Source	
Site Name	CULEBRA BLUFF WEST 15 CTB
Date Release Discovered	09/14/2022
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	440
What is the estimated number of samples that will be gathered	20
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/10/2024
Time sampling will commence	07:00 AM
Please provide any information necessary for observers to contact samplers	Please contact at Joseph Hernandez at 432-305-6413 with any questions
Please provide any information necessary for navigation to sampling site	From the intersection of NM-31 and NM-387, travel West on NM-31 for 0.26 miles, turn South and travel 0.10 miles, turn South and travel 0.14 miles, turn West and travel 0.04 miles to the provided GPS coordinates (32.309719, -104.072924).

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

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 390559

#### CONDITIONS

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	390559
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

#### CONDITIONS

Created By	Condition	Condition Date
abarnhill	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/7/2024

Sante Fe Main Office Phone: (505) 476-3441 General Information

Phone: (505) 629-6116
Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

QUESTIONS

Action 403962

#### **QUESTIONS**

ı	Operator:	OGRID:
ı	CHEVRON U S A INC	4323
ı	6301 Deauville Blvd	Action Number:
ı	Midland, TX 79706	403962
ı		Action Type:
ı		[C-141] Deferral Request C-141 (C-141-v-Deferral)

#### QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2226533583
Incident Name	NAPP2226533583 CULEBRA BLUFF WEST 15 CTB @ 0
Incident Type	Produced Water Release
Incident Status	Deferral Request Received
Incident Facility	[fAPP2132843666] Culebra Bluff West CTB

Location of Release Source	
Please answer all the questions in this group.	
Site Name	CULEBRA BLUFF WEST 15 CTB
Date Release Discovered	09/14/2022
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: Corrosion   Tank (Any)   Produced Water   Released: 11 BBL   Recovered: 0 BBL   Lost: 11 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.

General Information Phone: (505) 629-6116

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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, Page 2

Action 403962

QUESTIONS (continued)

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd Midland, TX 79706	Action Number: 403962
Wildiand, 1X 19100	Action Type:
	[C-141] Deferral Request C-141 (C-141-v-Deferral)
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 s	afety 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.
	ation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of ted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of valuation in the follow-up C-141 submission.
to report and/or file certain release notifications and perform corrective actions for release the OCD does not relieve the operator of liability should their operations have failed to	knowledge and understand that pursuant to OCD rules and regulations all operators are required asses which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface t does not relieve the operator of responsibility for compliance with any other federal, state, or
I hereby agree and sign off to the above statement	Name: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 11/16/2024

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

QUESTIONS, Page 3

Action 403962

**QUESTIONS** (continued)

OGRID:
4323
Action Number:
403962
Action Type:
[C-141] Deferral Request C-141 (C-141-v-Deferral)
Acti

#### QUESTIONS

Site Characterization		
Please answer all the questions in this group (only required when seeking remediation plan approva release discovery date.	l and beyond). This information must be provided to the appropriate district office no later than 90 days after the	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (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 ½ and 1 (mi.)	
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)	
An occupied permanent residence, school, hospital, institution, or church	Between 500 and 1000 (ft.)	
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1000 (ft.) and ½ (mi.)	
Any other fresh water well or spring	Between 1000 (ft.) and ½ (mi.)	
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)	
A wetland	Between ½ and 1 (mi.)	
A subsurface mine	Between 1 and 5 (mi.)	
An (non-karst) unstable area	Between 1 and 5 (mi.)	
Categorize the risk of this well / site being in a karst geology	Medium	
A 100-year floodplain	Between ½ and 1 (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	n 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 exten	s 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 full	delineated Yes		
Was this release entirely contained within a lined containment	area No		
Soil Contamination Sampling: (Provide the highest observable v	alue for each, in milligrams per kilograms.)		
Chloride (EPA 300.0 or SM4500 CI B)	6200		
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	39		
GRO+DRO (EPA SW-846 Method 8015M	39		
BTEX (EPA SW-846 Method 8021B	or 8260B) 0		
Benzene (EPA SW-846 Method 8021E	or 8260B) 0		
Per Subsection B of 19.15.29.11 NMAC unless the site characterization re which includes the anticipated timelines for beginning and completing the	ort includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, emediation.		
On what estimated date will the remediation commence	07/05/2023		
On what date will (or did) the final sampling or liner inspection	occur 10/10/2024		
On what date will (or was) the remediation complete(d)	10/15/2024		
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 recla	imed 0		
What is the estimated surface area (in square feet) that will be	remediated 449		
What is the estimated volume (in cubic yards) that will be reme	diated 8		
These estimated dates and measurements are recognized to be the best gu	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.		

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.

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

QUESTIONS, Page 4

Action 403962

**QUESTIONS** (continued)

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	403962
	Action Type:
	[C-141] Deferral Request C-141 (C-141-v-Deferral)

#### QUESTIONS

4		
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	R360 ARTESIA LLC LANDFARM [fEEM0112340644]	
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.	
<b>OR</b> is the <b>off-site</b> 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.

Name: Amy Barnhill Title: Waste & Water Specialist I hereby agree and sign off to the above statement Email: ABarnhill@chevron.com Date: 11/16/2024

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.

Operator:

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

CHEVRON USAINC

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

QUESTIONS, Page 5

Action 403962

**QUESTIONS** (continued)

OGRID:

4323

Midland, TX 79706	Action Number: 403962
	Action Type:  [C-141] Deferral Request C-141 (C-141-v-Deferral)
QUESTIONS	
Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each o	f 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	Residual impacts solely reside directly below and near surface utilities and equipment.
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	1836
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	68
	iately under or around production equipment such as production tanks, wellheads and pipelines where In may be deferred with division written approval until the equipment is removed during other operations, or when
Enter the facility ID (f#) on which this deferral should be granted	Culebra Bluff West CTB [fAPP2132843666]
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 et which includes the anticipated timelines for beginning and completing the remediation.	fforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC
to report and/or file certain release notifications and perform corrective actions for releate OCD does not relieve the operator of liability should their operations have failed to a	knowledge and understand that pursuant to OCD rules and regulations all operators are required asses which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface t does not relieve the operator of responsibility for compliance with any other federal, state, or
I hereby agree and sign off to the above statement	Name: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 11/16/2024

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

QUESTIONS, Page 6

Action 403962

**QUESTIONS** (continued)

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	403962
	Action Type:
	[C-141] Deferral Request C-141 (C-141-v-Deferral)

#### QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	390559
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/10/2024
What was the (estimated) number of samples that were to be gathered	20
What was the sampling surface area in square feet	440

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	No	

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 403962

#### **CONDITIONS**

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	403962
	Action Type:
	[C-141] Deferral Request C-141 (C-141-v-Deferral)

#### CONDITIONS

Created By	Condition	Condition Date
rhamlet	Chevron's deferral requests final remediation for (Incident Number NAPP2226533583) until final reclamation of the well pad or major construction, whichever comes first. Chevron and eTECH do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The impacted soil is the shaded area on figure 4 that is lying beneath equipment and subsurface lines, where remediation would require a major facility deconstruction. At this time, OCD approves this request. The Deferral Request and C-141 will be accepted for record and placed in the incident file. The release will remain open in OCD database files and reflect an open environmental issue.	3/19/2025