District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NRM2004956954
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)*
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.154055 Longitude -103.858082
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Rustler Bluff SWD	Site Type SWD Facility
Date Release Discovered 02/03/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
M	02	25S	30E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 231.98	Volume Recovered (bbls) 231.66
☒ Produced Water	Volume Released (bbls) 470.97	Volume Recovered (bbls) 470.34
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Two wells were opened to increase production. Simultaneously, main heater treater lost pressure causing fluid to dump into water tanks resulting in sending all fluid to the Rustler Bluff SWD. This caused overflowing in the SWD site tanks. Total fluid recovered was 702 barrels. A third contractor has been retained to complete remediation activities.

Incident ID	NRM2004956954
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of fluids over 25 barrels

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes by Amy Ruth to 'Griswold, Jim, EMNRD'; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; 'Hamlet, Robert, EMNRD' <Robert.Hamlet@state.nm.us>; Venegas, Victoria, EMNRD Victoria.Venegas@state.nm.us rmann@slo.state.nm.us' on Tuesday, February 4, 2020 at 10:02 AM via email.

Initial Response

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

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

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

N/A

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 2/18/2020

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Ramona Marcus Date: 2/18/2020

Location:	Rustler Bluff SWD	
Spill Date:	2/3/2020	

Area 1		
Approximate Area =	63.94	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.20	
VOLUME OF LEAK		
Total Crude Oil =	0.13	bbls
Total Produced Water =	0.25	bbls

Area 2		
Approximate Area =	1589.00	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.12	bbls
Total Produced Water =	0.24	bbls

Area 3		
Approximate Area =	1895.00	sq. ft.
Average Saturation (or depth) of spill =	0.25	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.07	bbls
Total Produced Water =	0.14	bbls

Area 4		
Approximate Area =	3941.44	cubic ft.
VOLUME OF LEAK		
Total Crude Oil =	**231.66**	bbls
Total Produced Water =	**470.34**	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**231.98**	**bbls**
Total Produced Water =	**470.97**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**231.66**	**bbls**
Total Produced Water =	**470.34**	**bbls**

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Site Assessment/Characterization

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2004956954
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Facility ID	
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If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 1/25/2021

email: Kyle_Littrell@xtoenergy.com Telephone: (432)-221-7331

OCD Only

Received by: Cristina Eads Date: 01/27/2021

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NRM2004956954
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 01/25/2021

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: Cristina Eads Date: 01/27/2021

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Date: 04/15/2021

Printed Name: Cristina Eads Title: Environmental Specialist

WSP USA
3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

January 22, 2021

New Mexico Oil Conservation Division
District 2
811 South First Street
Artesia, New Mexico 88210

RE: Closure Request Addendum
Rustler Bluff SWD
Incident Number NRM2004956954
Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc. (WSP) (formerly LT Environmental, Inc.), on behalf of XTO Energy, Inc. (XTO), presents the following addendum to the Closure Request submitted September 2, 2020. This Addendum provides an update to the excavation and soil sampling activities at the Rustler Bluff Salt Water Disposal (SWD) (Site) located in Unit M, Section 2, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1), in response to the denial of the Closure Request by the New Mexico Oil Conservation Division (NMOCD). In the denial, NMOCD requested that XTO conduct additional investigation of depth to groundwater or complete additional remediation activities in the area of floor sample FS14. Based on the additional excavation and soil sampling activities described below, XTO is requesting no further action (NFA) for Incident Number NRM2004956954.

BACKGROUND

On September 2, 2020, WSP submitted a Closure Request to the NMOCD for the February 3, 2020 release of crude oil and produced water onto the well pad and adjacent pipeline right-of-way. Approximately 231.98 barrels (bbls) of crude oil and 470.97 bbls of produced water were released. A vacuum truck was dispatched to the Site to recover the freestanding fluid; approximately 231.66 bbls of crude oil and 470.34 bbls of produced water were recovered. XTO reported the release to NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141) on February 18, 2020 and was subsequently issued Incident Number NRM2004956954.

The Closure Request detailed site characterization according to Table 1, 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). Based on the site characterization, the following Closure Criteria were applied:

- Benzene: 10 milligrams per kilogram (mg/kg)

- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 2,500 mg/kg
- TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- Chloride: 20,000 mg/kg

Closure was requested based on laboratory analytical results for the excavation and delineation soil samples indicating benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

On November 9, 2020, NMOCD denied Closure Request for Incident Number NRM2004956954 for the following reason:

- *The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. The responsible party may choose to remediate the FS14 sample area to the most stringent levels listed in Table 1 in lieu of drilling to determine the depth to groundwater.*

ADDITIONAL EXCAVATION ACTIVITIES

To address the denial, WSP oversaw additional excavation activities on December 22, 2020 to remove additional soil from the floor of the excavation in the area around floor sample FS14. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The excavation was completed to a depth of 7 feet bgs. Upon completion of excavation activities, 5-point composite sample FS14A was collected from the floor of the excavation from a depth of 7 feet bgs.

The excavation soil sample was placed directly into pre-cleaned glass jars, labeled with location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) following United States Environmental Protection Agency (EPA) Method 8021B; total petroleum hydrocarbons (TPH)-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

The excavation extents and excavation soil sample locations are depicted on Figure 1. Photographic documentation was conducted during excavation activities and photos are included in Attachment 1.

SOIL ANALYTICAL RESULTS

Laboratory analytical result for floor sample FS14A indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria applied to the Site and compliant with the most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included as Attachment 2.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the February 3, 2020, release of produced water and crude oil. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria applied to the Site and compliant with the most stringent Table 1 Closure Criteria. Based on the final excavation soil sample analytical results, XTO respectfully requests no further action for Incident Number NRM2004956954.

If you have any questions or comments, please do not hesitate to contact Ms. Ashley Ager at (970) 385-1096 or Ashley.Ager@wsp.com.

Sincerely,

WSP USA, INC.

Spencer Lo
Assistant Geologist

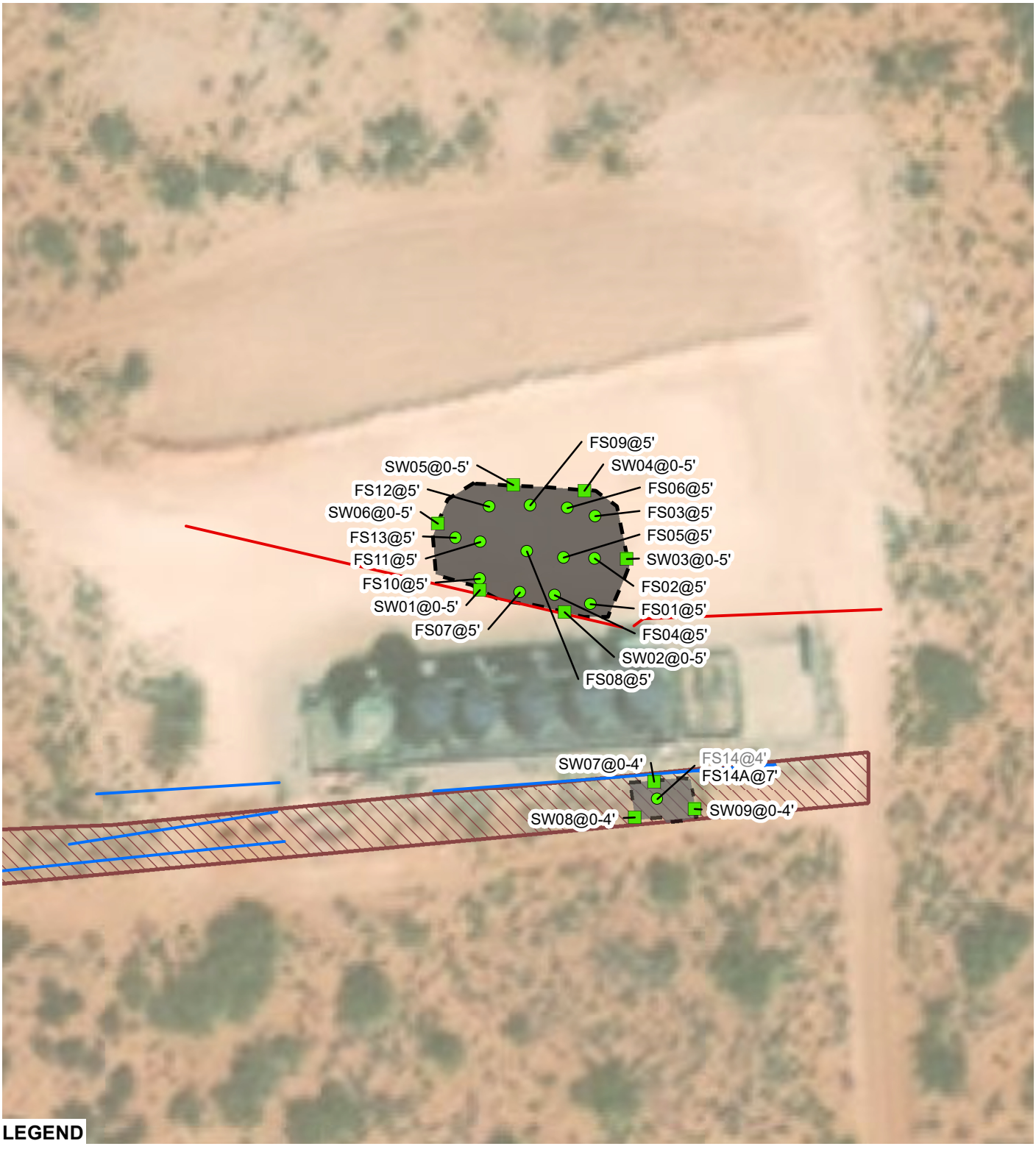
Ashley L. Ager, M.S., P.G.
Managing Director, Geologist

cc: Kyle Littrell, XTO
Ryan Mann, New Mexico State Land Office

Attachments:

Figure 1 Excavation Soil Sample Locations
Table 1 Laboratory Analytical Results
Attachment 1 Photographic Log
Attachment 2 Laboratory Analytical Report

FIGURES



LEGEND

- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- EXCAVATION EXTENT
- PIPELINE ROW/LEASE ROAD

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: INCIDENT NUMBER NRM2004956954
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

IMAGE COURTESY OF ESRI

0 50 100
Feet

N

FIGURE 1
EXCAVATION SOIL SAMPLE LOCATIONS
RUSTLER BLUFF SWD
UNIT M SEC 2 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920029_RUSTLER BLUFF\012920029_FIG04_EXCAVATION_ND_2020.mxd

TABLES

Table 1

Soil Analytical Results
RUSTLER BLUFF SWD
INCIDENT NUMBER NRM2004956954
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Floor Samples										
FS01	03/05/2020	5	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	138
FS02	03/05/2020	5	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	272
FS03	03/05/2020	5	<0.00197	<0.00197	<49.9	<49.9	<49.9	<49.9	<49.9	117
FS04	03/05/2020	5	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	258
FS05	03/05/2020	5	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	230
FS06	03/05/2020	5	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	15.0
FS07	03/05/2020	5	<0.00197	<0.00197	<49.8	<49.8	<49.8	<49.8	<49.8	269
FS08	03/05/2020	5	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	290
FS09	03/05/2020	5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	294
FS10	03/05/2020	5	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	195
FS11	03/05/2020	5	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	265
FS12	03/05/2020	5	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	255
FS13	03/06/2020	5	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	270
FS14	04/22/2020	4	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,690
FS14A	12/22/2020	7	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	599

Table 1

Soil Analytical Results
RUSTLER BLUFF SWD
INCIDENT NUMBER NRM2004956954
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Sidewall Samples										
SW01	03/06/2020	0 - 5	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	192
SW02	03/06/2020	0 - 5	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	<10.1
SW03	03/06/2020	0 - 5	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	56.2
SW04	03/06/2020	0 - 5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	117
SW05	03/06/2020	0 - 5	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	74.4
SW06	03/06/2020	0 - 5	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	108
SW07	04/22/2020	0 - 4	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	204
SW08	04/22/2020	0 - 4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	237
SW09	04/22/2020	0 - 4	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	18.4

ft - feet/foot
mg/kg - milligrams per kilograms
BTEX - benzene, toluene, ethylbenzene, and total xylenes
TPH - total petroleum hydrocarbons
DRO - diesel range organics
GRO - gasoline range organics
ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division
NMAC - New Mexico Administrative Code
< - indicates result is less than the stated laboratory method practical quantitation limit
NE - Not Established
BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard
Greyed data represents samples that were excavated

ATTACHMENT 1: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Rustler Bluff SWD Eddy County, NM	TE012920029

Photo No.	Date
1	December 22, 2020

Eastern view of excavation.

Photo No.	Date
2	December 22, 2020

Western view of excavation.

ATTACHMENT 2: LABORATORY ANALYTICAL RESULTS

eurofins | Environment Testing Xenco

Analytical Report 682652

for

LT Environmental, Inc.

Project Manager: Dan Moir

Rustler Bluff SWD

TE012920029

01.06.2021

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

01.06.2021

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **682652**
Rustler Bluff SWD
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 682652. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 682652 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 682652

LT Environmental, Inc., Arvada, CO

Rustler Bluff SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS14A	S	12.22.2020 14:25	7 ft	682652-001

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CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Rustler Bluff SWD

Project ID: *TE012920029*
Work Order Number(s): *682652*

Report Date: *01.06.2021*
Date Received: *12.28.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 682652

LT Environmental, Inc., Arvada, CO

Rustler Bluff SWD

Sample Id: **FS14A** Matrix: Soil Date Received:12.28.2020 10:05

Lab Sample Id: 682652-001 Date Collected: 12.22.2020 14:25 Sample Depth: 7 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 12.28.2020 15:00 % Moisture:

Seq Number: 3146199 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**599**	10.0	mg/kg	01.06.2021 08:50		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: CAC

Analyst: CAC Date Prep: 12.28.2020 16:58 % Moisture:

Seq Number: 3146197 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.29.2020 01:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.29.2020 01:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.29.2020 01:21	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.29.2020 01:21	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.29.2020 01:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.29.2020 01:21	
o-Terphenyl	84-15-1	106	%	70-135	12.29.2020 01:21	

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Certificate of Analytical Results 682652

LT Environmental, Inc., Arvada, CO

Rustler Bluff SWD

Sample Id:	**FS14A**	Matrix:	Soil	Date Received:	12.28.2020 10:05
Lab Sample Id:	682652-001	Date Collected:	12.22.2020 14:25	Sample Depth:	7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.28.2020 13:49	% Moisture:	
Seq Number:	3146209			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.29.2020 02:04	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.29.2020 02:04	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.29.2020 02:04	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.29.2020 02:04	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.29.2020 02:04	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.29.2020 02:04	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.29.2020 02:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	12.29.2020 02:04	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.29.2020 02:04	

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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QC Summary 682652

LT Environmental, Inc.

Rustler Bluff SWD

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3146199 — Matrix: Solid — Date Prep: 12.28.2020
MB Sample Id: 7717983-1-BLK — LCS Sample Id: 7717983-1-BKS — LCSD Sample Id: 7717983-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	258	103	258	103	90-110	0	20	mg/kg	12.28.2020 15:29	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3146199 — Matrix: Soil — Date Prep: 12.28.2020
Parent Sample Id: 682649-001 — MS Sample Id: 682649-001 S — MSD Sample Id: 682649-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.1	202	203	100	203	100	90-110	0	20	mg/kg	12.28.2020 15:48	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3146199 — Matrix: Soil — Date Prep: 12.28.2020
Parent Sample Id: 682651-003 — MS Sample Id: 682651-003 S — MSD Sample Id: 682651-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1470	200	1680	105	1670	100	90-110	1	20	mg/kg	12.28.2020 17:11	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3146197 — Matrix: Solid — Date Prep: 12.28.2020
MB Sample Id: 7718038-1-BLK — LCS Sample Id: 7718038-1-BKS — LCSD Sample Id: 7718038-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1050	105	1120	112	70-135	6	35	mg/kg	12.28.2020 22:58	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1120	112	70-135	3	35	mg/kg	12.28.2020 22:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		94		96		70-135	%	12.28.2020 22:58
o-Terphenyl	97		100		119		70-135	%	12.28.2020 22:58

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3146197 — Matrix: Solid — Date Prep: 12.28.2020
MB Sample Id: 7718038-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.28.2020 22:38	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 682652

LT Environmental, Inc.

Rustler Bluff SWD

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3146197 Matrix: Soil Date Prep: 12.28.2020
Parent Sample Id: 682735-001 MS Sample Id: 682735-001 S MSD Sample Id: 682735-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1110	111	1180	118	70-135	6	35	mg/kg	12.28.2020 23:59	
Diesel Range Organics (DRO)	<50.1	1000	1130	113	1130	113	70-135	0	35	mg/kg	12.28.2020 23:59	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		105		70-135	%	12.28.2020 23:59
o-Terphenyl	106		108		70-135	%	12.28.2020 23:59

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3146209 Matrix: Solid Date Prep: 12.28.2020
MB Sample Id: 7717957-1-BLK LCS Sample Id: 7717957-1-BKS LCSD Sample Id: 7717957-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0977	98	0.0915	92	70-130	7	35	mg/kg	12.28.2020 13:30	
Toluene	<0.00200	0.100	0.0938	94	0.0877	88	70-130	7	35	mg/kg	12.28.2020 13:30	
Ethylbenzene	<0.00200	0.100	0.0974	97	0.0906	91	71-129	7	35	mg/kg	12.28.2020 13:30	
m,p-Xylenes	<0.00400	0.200	0.205	103	0.190	95	70-135	8	35	mg/kg	12.28.2020 13:30	
o-Xylene	<0.00200	0.100	0.101	101	0.0935	94	71-133	8	35	mg/kg	12.28.2020 13:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		104		97		70-130	%	12.28.2020 13:30
4-Bromofluorobenzene	111		109		107		70-130	%	12.28.2020 13:30

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3146209 Matrix: Soil Date Prep: 12.28.2020
Parent Sample Id: 682650-002 MS Sample Id: 682650-002 S MSD Sample Id: 682650-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0862	86	0.0994	100	70-130	14	35	mg/kg	12.28.2020 21:22	
Toluene	0.0198	0.0998	0.0912	72	0.0919	72	70-130	1	35	mg/kg	12.28.2020 21:22	
Ethylbenzene	0.00766	0.0998	0.0915	84	0.0955	88	71-129	4	35	mg/kg	12.28.2020 21:22	
m,p-Xylenes	0.0286	0.200	0.189	80	0.199	86	70-135	5	35	mg/kg	12.28.2020 21:22	
o-Xylene	0.00960	0.0998	0.0962	87	0.0999	91	71-133	4	35	mg/kg	12.28.2020 21:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		70-130	%	12.28.2020 21:22
4-Bromofluorobenzene	108		110		70-130	%	12.28.2020 21:22

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Chain of Custody

Work Order No: 582652

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	bbelill@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Rustler Bluff SWD	Turn Around	
Project Number:	TE01292002 9	Routine	X
P.O. Number:	NRM2004956954	Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	0.8 / 0.6	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS14A	S	12/22/20	1425	7'	1	V	X	X	Composite

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

SCD 12/22/2020

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
BJ Belill	Cloe Cuellar	12/28/20@1005	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12.28.2020 10.05.00 AM

Work Order #: 682652

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 12.28.2020

Checklist reviewed by: Jessica Kramer Date: 12.28.2020

Jessica Kramer

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

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

CONDITIONS

Action 15866

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707	5380	15866	C-141

OCD Reviewer	Condition
ceads	None