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	NRM2034929754
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 32.20929 Longitude -103.84670
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU Big Sinks 23	Site Type CTB
Date Release Discovered 11-19-20	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
A	23	24S	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)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 99	Volume Recovered (bbls) 99
	Is the concentration of total dissolved solids (TDS) 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: LO reported fluid within the tank containment at the PLU Big Sinks 23 CTB from the water transfer pump mechanical seal. A vacuum truck recovered all standing fluid. A 48-hour advance liner inspection notification was given to NMOCD District 2. Liner inspection determined the liner was not operating as designed. A third-party contractor has been retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2034929754
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? A release equal to or greater than 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 Kyle Littrell to 'Bratcher, Mike, EMNRD'; 'Hamlet, Robert, EMNRD'; 'Venegas, Victoria, EMNRD'Griswold, Jim, EMNRD'; 'BLM_NM_CFO_Spill@blm.gov'; 'Morgan, Crisha A' on Friday, November 20, 2020 8:51 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:
NA

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: 12-2-20
email: Kyle_Littrell@xtoenergy.com
Telephone: 432-221-7331

OCD Only

Received by: Ramona Marcus
Date: 12/14/2020

Location:	**PLU Big Sinks 23 CTB**	
Spill Date:	**11/19/2020**	
Area 1		
Approximate Area =	555.84	cu. Ft.
VOLUME OF LEAK		
Total Produced Water =	99.00	bbls
TOTAL VOLUME OF LEAK		
Total Produced Water =	**99.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Produced Water =	**99.00**	**bbls**

Incident ID	NRM2034929754
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2034929754
District RP	
Facility ID	
Application ID	

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: 02/15/2021

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

OCD Only

Received by: Date:

Incident ID	NRM2034929754
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: 02/15/2021

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

OCD Only

Received by: Cristina Eads Date: 04/03/2021

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: 06/30/2021

Printed Name: Cristina Eads Title: Environmental Specialist

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

February 16, 2021

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

RE: Closure Request
PLU Big Sinks 23
Incident Number NRM2034929754
Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO) presents the following Closure Request detailing site assessment and soil sampling activities at Poker Lake Unit (PLU) Big Sinks 23 (Site) in Unit A, Section 23, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of produced water within lined containment at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NRM2034929754.

BACKGROUND

On November 19, 2020, the mechanical seal on a water transfer pump ruptured, resulting in the release of approximately 99 barrels (bbls) of produced water into the lined tank battery containment. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids; all 99 bbls of the released produced water were recovered from within the lined containment. A 48-hour advance notice of a liner inspection was provided via email to the New Mexico Oil Conservation Division (NMOCD) District II office. A liner integrity inspection was conducted by XTO personnel following the fluid recovery; upon inspection the liner was determined to be insufficient. XTO reported the release to the NMOCD via email on November 20, 2020 and submitted a Release Notification and Corrective Action Form C-141 (Form C-141) on December 2, 2020. The release was assigned Incident Number NRM2034929754.

SITE CHARACTERIZATION

WSP characterized the Site 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). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground

surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 321203103511801, located approximately 0.76 miles southwest of the Site. The groundwater well has a reported depth to groundwater of 423 feet bgs and a total depth of 474 feet bgs. All wells used for depth to groundwater determination are depicted on Figure 1. When viewed regionally using potentiometric contours, the Site falls in an area with depth to groundwater greater than 400 feet, with four corresponding data points within 2 miles of the Site. The referenced well records are included in Attachment 1. Additionally, Figure 1 shows nearby XTO release locations for which NMOCD has approved the depth to groundwater determinations based on the depth to groundwater associated with the nearest New Mexico Office of the State Engineer (NMOSE) or USGS wells identified. For all of these locations, depth to groundwater was estimated to be greater than 100 feet bgs. All determinations referenced the same groundwater wells and available data as provided in Figure 1.

The closest continuously flowing water or significant watercourse to the Site is a potential emergent palustrine wetland, located approximately 925 feet to the southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). The Site receptors are identified on Figure 1.

CLOSURE CRITERIA

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On December 30, 2020, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. WSP personnel advanced one borehole (BH01) via hand-auger within the breached area identified by XTO during the liner inspection. Two soil samples were collected from borehole BH01 at depths of approximately 0.5 feet and 1-foot bgs. Soil from the borehole was field screened for volatile aromatic hydrocarbons

and chloride utilizing a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations from the borehole were documented on a lithologic/soil sampling log and are included as Attachment 2. The borehole was backfilled and XTO personnel repaired the liner. The borehole delineation soil sample location is depicted on Figure 2. Photographic documentation was conducted during the Site visit. The photographic log is included as Attachments 3.

The soil samples were placed directly into a pre-cleaned glass jar, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofin Laboratories (Eurofin) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples BH01 and BH01A, collected at depths of approximately 0.5 feet and 1-foot bgs, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included as Attachment 4.

CLOSURE REQUEST

Following the failed liner integrity inspection at the Site, WSP personnel advanced one borehole (BH01) at the location of the tear in the liner to assess for the presence or absence of soil impacts resulting from the November 19, 2020 produced water release within lined containment. Two delineation soil samples were collected from borehole BH01 at depths of approximately 0.5 feet and 1-foot bgs. Laboratory analytical results for the delineation soil samples indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, delineation soil sample BH01A vertically delineated the release to below the most stringent Closure Criteria. The release was contained laterally by the lined containment and all released fluids were recovered during initial response activities. The tear in the liner was subsequently repaired.

Based on initial response efforts, regional depth to groundwater greater than 100 feet bgs, and soil sample laboratory analytical results compliant with the Closure Criteria directly below the tear in the liner, XTO respectfully requests NFA for Incident Number NRM2034929754.

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

Sincerely,

WSP USA Inc.

Kalei Jennings
Associate Consultant

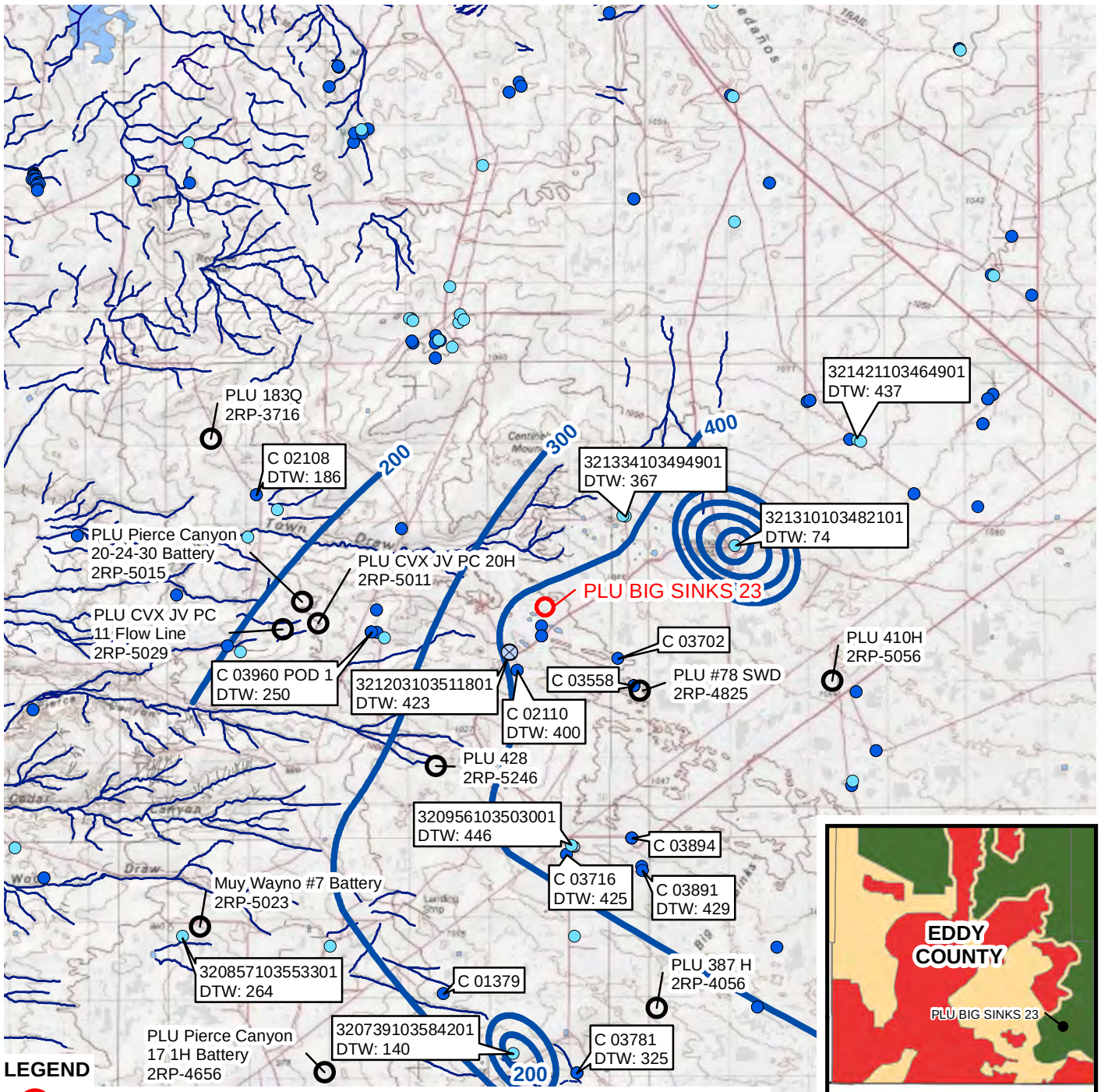
Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Kyle Littrell, XTO
Bureau of Land Management

Attachments:

Figure 1	Site Location Map
Figure 2	Delineation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Referenced Well Records
Attachment 2	Lithologic/Soil Sampling Logs
Attachment 3	Photographic Log
Attachment 4	Laboratory Analytical Reports

FIGURES



NOTE: INCIDENT NUMBER NRM2034929754
NMOSE: NEW MEXICO OFFICE OF STATE ENGINEERS
USGS: UNITED STATES GEOLOGICAL SURVEY
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

FIGURE 2
SITE LOCATION MAP
PLU BIG SINKS 23
UNIT A SEC 23 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920165_PLU BIG SINKS 23\012920165_FIG01_SL_SITES_2021.mxd

LEGEND

IMAGE COURTESY OF ESRI

DELINEATION SOIL SAMPLE IN COMPLIANCE WIT APPLICABLE CLOSURE CRITERIA

INFRASTRUCTURE

0 50 100

Feet

N

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
PLU BIG SINKS 23
UNIT A SEC 23 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

NOTE: INCIDENT NUMBER NRM2034929754
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

P:\XTO Energy\GIS\MXD\012920165_PLU BIG SINKS 23\012920165_FIG02_DELINEATION_2021.mxd

TABLES

Table 1

Soil Analytical Results
PLU Big Sinks 23
Incident Number NRM2034929754
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**
Delineation Samples										
BH01	12/30/2020	0.5	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	8,180
BH01A	12/30/2020	1	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	266

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

ATTACHMENT 1: REFERENCED WELL RECORD

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Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321203103511801

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 321203103511801 24S.30E.23.3124143

Eddy County, New Mexico
Latitude 32°12'03", Longitude 103°51'18" NAD27
Land-surface elevation 3,423 feet above NAVD88
The depth of the well is 474 feet below land surface.
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1959-03-26		D	62610		2998.18	NGVD29	1	Z		
1959-03-26		D	62611		2999.90	NAVD88	1	Z		
1959-03-26		D	72019	423.10			1	Z		

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined

Section	Code	Description
Water-level approval status	A	Approved for publication -- Processing and review completed.

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2021-02-14 22:33:42 EST
0.34 0.31 nadww01

USGS 321203103511801 24S.30E.23.3124143

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

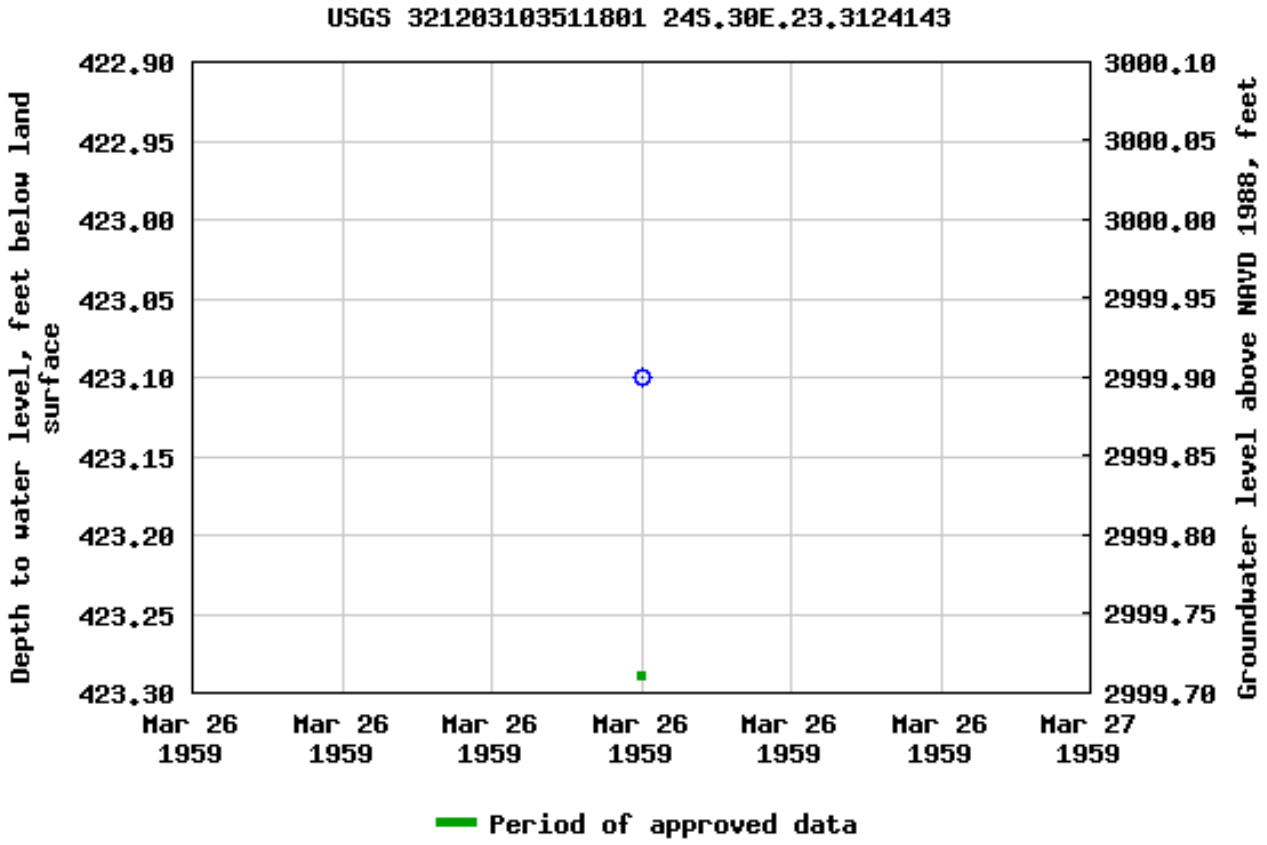
Latitude 32°12'03", Longitude 103°51'18" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 474 feet
Land surface altitude: 3,423 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-03-26	1959-03-26	1
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries



New Mexico Office of the State Engineer
Water Right Summary

WR File Number: C 02110 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: STK 72-12-1 LIVESTOCK WATERING

Primary Status: DCL DECLARATION

Total Acres: 0 **Subfile:** - **Header:** -

Total Diversion: 3 **Cause/Case:** -

Owner: CLARENCE W. MCDONALD

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
199332	DCL	1984-03-01	DCL	PRC	C 02110	T	0	3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 02110			4	3		23	24S	30E	608036	3562950*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Place of Use

Q 256	Q 64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
							0	3		STK		DCL	NO PLACE OF USE GIVEN.

Source

Acres	Diversion	CU	Use	Priority	Source	Description
0	3		STK		GW	

2/14/21 8:30 PM WATER RIGHT SUMMARY

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 02110		4	3	23	24S	30E	608036	3562950*

Driller License: **Driller Company:**

Driller Name: UNKNOWN

Drill Start Date:		**Drill Finish Date:**	12/31/1967	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	15 GPM
Casing Size:	7.00	**Depth Well:**	600 feet	**Depth Water:**	400 feet

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

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 03960 POD1	1	3	2	21	24S	30E	605062	3563712

Driller License: 1753 **Driller Company:** VANGUARD WATER WELLS

Driller Name: JACOBO FRIESSEN

Drill Start Date:	11/12/2016	**Drill Finish Date:**	11/12/2016	**Plug Date:**	
Log File Date:	11/17/2016	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	6.00	**Depth Well:**	475 feet	**Depth Water:**	250 feet

Water Bearing Stratifications:	Top	Bottom	Description
	182	250	Sandstone/Gravel/Conglomerate
	402	460	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	250	290
	395	435

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status
[redacted]							

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Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321214103525501

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 321214103525501 24S.30E.21.23144

Eddy County, New Mexico
Latitude 32°12'14", Longitude 103°52'55" NAD27
Land-surface elevation 3,371 feet above NAVD88
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1976-12-01	D	62610		3025.74	NGVD29	1	Z			
1976-12-01	D	62611		3027.43	NAVD88	1	Z			
1976-12-01	D	72019	343.57			1	Z			
1983-02-01	D	62610		3024.48	NGVD29	1	Z			
1983-02-01	D	62611		3026.17	NAVD88	1	Z			
1983-02-01	D	72019	344.83			1	Z			
1987-10-15	D	62610		3024.80	NGVD29	1	S			
1987-10-15	D	62611		3026.49	NAVD88	1	S			
1987-10-15	D	72019	344.51			1	S			
1998-01-28	D	62610		3029.84	NGVD29	1	S			
1998-01-28	D	62611		3031.53	NAVD88	1	S			
1998-01-28	D	72019	339.47			1	S			

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status

Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

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Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

site_no list =

- 321214103525501

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

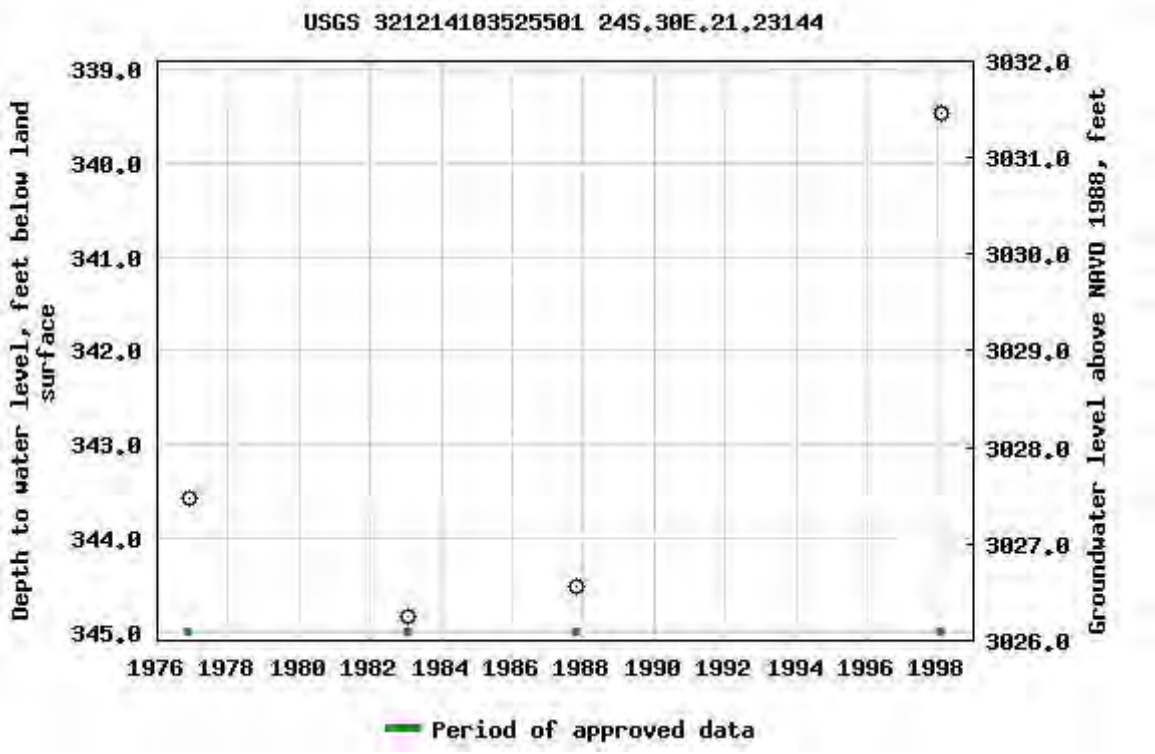
USGS 321214103525501 24S.30E.21.23144

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°12'14", Longitude 103°52'55" NAD27
Land-surface elevation 3,371 feet above NAVD88
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
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Data Tips
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U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2021-02-14 22:35:29 EST
0.65 0.55 nadww01

ATTACHMENT 2: LITHOLOGIC/SAMPLING LOG

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or MW Name: BH01	Date: 12/30/2020
Site Name: PLU BIG SINKS 23	
RP or Incident Number NRM2034929754	
WSP Job Number: TE012920165	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: BB			Method: HAND AUGER
Lat/Long: 32.209185, -103.846704	Field Screening: PID, CHLORIDES	Hole Diameter: 3.5"	Total Depth: 1'
			Depth to Water: N/A

Backfill or Well Construction Materials / Comments:
All chloride tests include a 40% correction factor. Borehole backfilled with sand 1' to surface.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
M	9,268	0.0	N	BH01	0.5'	0	CCHE	0-1' CALICHE, moist, light brown, unconsolidated, no stain, no odor, fill.	Backfilled with sand from 1' to surface
M	274	0.0	N	BH01A	1'	1	SC	1'-3' clayey SAND, moist, brown-dark brown, poorly graded, fine-very fine grain, no stain, no odor.	
								Total Depth: 1' bgs	

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU Big Sinks 23 Eddy County, New Mexico	TE012920165

Photo No.	Date
1	December 30, 2020

Location of tear in liner and proposed borehole location.

Photo No.	Date
2	December 30, 2020

Size of tear in liner, compared to impact gloves

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU Big Sinks 23 Eddy County, New Mexico	TE012920165

Photo No.	Date
3	December 30, 2020

Removal of liner before commencement of borehole (BH01).

Photo No.	Date
4	December 30, 2020

Location of borehole, following backfilling procedures.

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

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Certificate of Analysis Summary 683052

LT Environmental, Inc., Arvada, CO

Project Name: PLU Big Sinks 23 CTB

Project Id: TE012920165
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed 12.30.2020 15:15
Report Date: 01.05.2021 11:42
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	683052-001		683052-002			
	Field Id:	BH01		BH01A			
	Depth:	0.5- ft		1- ft			
	Matrix:	SOIL		SOIL			
	Sampled:	12.30.2020 11:15		12.30.2020 11:25			
BTEX by EPA 8021B	***Extracted:***	12.30.2020 18:00		12.30.2020 18:00			
	Analyzed:	12.31.2020 15:01		12.31.2020 15:23			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		<0.00200	0.00200	<0.00200	0.00200		
Toluene		<0.00200	0.00200	<0.00200	0.00200		
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200		
m,p-Xylenes		<0.00400	0.00400	<0.00400	0.00400		
o-Xylene		<0.00200	0.00200	<0.00200	0.00200		
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200		
Total BTEX		<0.00200	0.00200	<0.00200	0.00200		
Chloride by EPA 300	***Extracted:***	12.31.2020 09:30		12.31.2020 09:30			
	Analyzed:	12.31.2020 23:29		12.31.2020 23:47			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		8180	49.7	266	9.96		
TPH by SW8015 Mod	***Extracted:***	12.30.2020 19:00		12.30.2020 19:00			
	Analyzed:	12.31.2020 10:19		12.31.2020 10:39			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0		
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0		
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0		
Total GRO-DRO		<50.0	50.0	<50.0	50.0		
Total TPH		<50.0	50.0	<50.0	50.0		

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 683052

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU Big Sinks 23 CTB

TE012920165

01.05.2021

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)

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01.05.2021

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

Reference: Eurofins Xenco, LLC Report No(s): **683052**
PLU Big Sinks 23 CTB
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) 683052. 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. 683052 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 683052

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 23 CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	12.30.2020 11:15	0.5 ft	683052-001
BH01A	S	12.30.2020 11:25	1 ft	683052-002

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CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Big Sinks 23 CTB

Project ID: *TE012920165*
Work Order Number(s): *683052*

Report Date: *01.05.2021*
Date Received: *12.30.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 683052

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 23 CTB

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	12.30.2020 15:15
Lab Sample Id:	683052-001	Date Collected:	12.30.2020 11:15	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.31.2020 09:30	% Moisture:	
Seq Number:	3146548			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8180**	49.7	mg/kg	12.31.2020 23:29		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	12.30.2020 19:00	% Moisture:	
Seq Number:	3146503			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.31.2020 10:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.31.2020 10:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.31.2020 10:19	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.31.2020 10:19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.31.2020 10:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	12.31.2020 10:19	
o-Terphenyl	84-15-1	111	%	70-135	12.31.2020 10:19	

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Certificate of Analytical Results 683052

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 23 CTB

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	12.30.2020 15:15
Lab Sample Id:	683052-001	Date Collected:	12.30.2020 11:15	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 18:00	% Moisture:	
Seq Number:	3146524			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.31.2020 15:01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.31.2020 15:01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.31.2020 15:01	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.31.2020 15:01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.31.2020 15:01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.31.2020 15:01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.31.2020 15:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.31.2020 15:01	
4-Bromofluorobenzene	460-00-4	89	%	70-130	12.31.2020 15:01	

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Certificate of Analytical Results 683052

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 23 CTB

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	12.30.2020 15:15
Lab Sample Id:	683052-002	Date Collected:	12.30.2020 11:25	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.31.2020 09:30	% Moisture:	
Seq Number:	3146548			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**266**	9.96	mg/kg	12.31.2020 23:47		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	12.30.2020 19:00	% Moisture:	
Seq Number:	3146503			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.31.2020 10:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.31.2020 10:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.31.2020 10:39	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.31.2020 10:39	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.31.2020 10:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.31.2020 10:39	
o-Terphenyl	84-15-1	103	%	70-135	12.31.2020 10:39	

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Certificate of Analytical Results 683052

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 23 CTB

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	12.30.2020 15:15
Lab Sample Id:	683052-002	Date Collected:	12.30.2020 11:25	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 18:00	% Moisture:	
Seq Number:	3146524			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.31.2020 15:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.31.2020 15:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.31.2020 15:23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.31.2020 15:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.31.2020 15:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.31.2020 15:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.31.2020 15:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	12.31.2020 15:23	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.31.2020 15:23	

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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 683052

LT Environmental, Inc.

PLU Big Sinks 23 CTB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3146548 — Matrix: Soil — Date Prep: 12.31.2020
Parent Sample Id: 683040-033 — MS Sample Id: 683040-033 S — MSD Sample Id: 683040-033 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	191	96	185	93	90-110	3	20	mg/kg	12.31.2020 21:48	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3146548 — Matrix: Soil — Date Prep: 12.31.2020
Parent Sample Id: 683040-043 — MS Sample Id: 683040-043 S — MSD Sample Id: 683040-043 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	22.9	198	212	96	211	95	90-110	0	20	mg/kg	12.31.2020 23:12	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3146503 — Matrix: Solid — Date Prep: 12.30.2020
MB Sample Id: 7718216-1-BLK — LCS Sample Id: 7718216-1-BKS — LCSD Sample Id: 7718216-1-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	943	94	1120	112	70-135	17	35	mg/kg	12.31.2020 04:01	
Diesel Range Organics (DRO)	<50.0	1000	992	99	1100	110	70-135	10	35	mg/kg	12.31.2020 04:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		126		106		70-135	%	12.31.2020 04:01
o-Terphenyl	90		105		112		70-135	%	12.31.2020 04:01

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3146503 — Matrix: Solid — Date Prep: 12.30.2020
MB Sample Id: 7718216-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.31.2020 03:42	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3146503 — Matrix: Soil — Date Prep: 12.30.2020
Parent Sample Id: 683040-031 — MS Sample Id: 683040-031 S — MSD Sample Id: 683040-031 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)	<49.9	998	1180	118	1030	103	70-135	14	35	mg/kg	12.31.2020 05:01	
Diesel Range Organics (DRO)	<49.9	998	1050	105	989	99	70-135	6	35	mg/kg	12.31.2020 05:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		97		70-135	%	12.31.2020 05:01
o-Terphenyl	114		118		70-135	%	12.31.2020 05:01

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 683052

LT Environmental, Inc.

PLU Big Sinks 23 CTB

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3146524 Matrix: Solid Date Prep: 12.30.2020

MB Sample Id: 7718227-1-BLK LCS Sample Id: 7718227-1-BKS LCSD Sample Id: 7718227-1-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	0.0959	96	0.104	104	70-130	8	35	mg/kg	12.31.2020 07:23	
Toluene	<0.00200	0.100	0.0916	92	0.101	101	70-130	10	35	mg/kg	12.31.2020 07:23	
Ethylbenzene	<0.00200	0.100	0.0851	85	0.0924	92	71-129	8	35	mg/kg	12.31.2020 07:23	
m,p-Xylenes	<0.00400	0.200	0.174	87	0.190	95	70-135	9	35	mg/kg	12.31.2020 07:23	
o-Xylene	<0.00200	0.100	0.0872	87	0.0948	95	71-133	8	35	mg/kg	12.31.2020 07:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		95		95		70-130	%	12.31.2020 07:23
4-Bromofluorobenzene	87		86		88		70-130	%	12.31.2020 07:23

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3146524 Matrix: Soil Date Prep: 12.30.2020

Parent Sample Id: 683040-033 MS Sample Id: 683040-033 S MSD Sample Id: 683040-033 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	0.100	0.108	108	0.0947	95	70-130	13	35	mg/kg	12.31.2020 08:08	
Toluene	<0.00200	0.100	0.103	103	0.0910	91	70-130	12	35	mg/kg	12.31.2020 08:08	
Ethylbenzene	<0.00200	0.100	0.0965	97	0.0844	84	71-129	13	35	mg/kg	12.31.2020 08:08	
m,p-Xylenes	<0.00400	0.200	0.196	98	0.172	86	70-135	13	35	mg/kg	12.31.2020 08:08	
o-Xylene	<0.00200	0.100	0.0982	98	0.0859	86	71-133	13	35	mg/kg	12.31.2020 08:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		94		70-130	%	12.31.2020 08:08
4-Bromofluorobenzene	92		89		70-130	%	12.31.2020 08:08

MS/MSD Percent Recovery	[D] = 100*(C-A) / B	LCS = Laboratory Control Sample	MS = Matrix Spike
Relative Percent Difference	RPD = 200* | (C-E) / (C+E) |	A = Parent Result	B = Spike Added
LCS/LCSD Recovery	[D] = 100 * (C) / [B]	C = MS/LCS Result	D = MSD/LCSD % Rec
Log Difference	Log Diff. = Log(Sample Duplicate) - Log(Original Sample)	E = MSD/LCSD Result	

Chain of Custody

Work Order No: 683052

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 ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	PLU Big Sinks 23 CTB	Turn Around	
Project Number:	TE012920165	Routine	☒
P.O. Number:	NRM2034929754	Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	1.4 / 1.2	Temp Blank: (Yes) No	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID	TNM007
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	2

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	12/30/20	1115	0.5'	1	X	X	X
BH01A	↓	↓	1125	1'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

BB 12/30/2020

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
1	BJ Belill		12/30/20@1515	2			
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12.30.2020 03.15.00 PM

Work Order #: 683052

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)?	1.2
#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**
#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: Martha Castro Date: 12.30.2020

Checklist reviewed by: Jessica Kramer Date: 12.31.2020

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 18253

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 18253
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
ceads	Per 19.15.29.13 NMAC, the responsible party must substantially restore the impacted surface areas to the condition that existed prior to the release or their final land use.	6/30/2021