

SEPTEMBER 18, 2019



RELEASE CLOSURE REPORT  
XTO ENERGY, INC. – EMSU #266 (API#: 30-025-26101)

1RP-4546

Prepared for: XTO Energy, Inc.

Prepared by: Sport Environmental Services, LLC

502 N. Big Spring St.

Midland, TX 79701

[www.sportenv.com](http://www.sportenv.com)



XTO Energy, Inc. — EMSU (1RP-4546)

September 18, 2019

Environmental Specialist Team  
New Mexico Oil Conservation Division  
District 1 (Hobbs)  
1625 N. French Dr.  
Hobbs, NM 882140

**Re: Release Closure Report**  
**XTO Energy, Inc.**  
**Eunice Monument South Unit (EMSU) #266**  
**RP #: 1RP-4546**  
**Approximate Geographic Coordinates: 32.501578°N, -103.243517°W**  
**Unit Letter U, Section 2, Township 21S, Range 36E**  
**Lea County, New Mexico**

Dear NMOCD Environmental Specialists:

This documentation is being provided as part of XTO Energy, Inc. (*XTO* or *Client*) efforts to address historical releases that may have been addressed in the past, but which appear not to have documentation from the New Mexico Oil Conservation Division (*NMOCD*) clearly demonstrating approved closure of the release. The release referenced above was included in the list of historical releases which occurred prior to August 14, 2018 that are intended to be addressed as described within the "Compliance Agreement for Remediation for Historical Releases" (*Compliance Agreement*) entered into by NMOCD and XTO on November 8, 2018.

### ***Executive Summary***

Sport Environmental Services, LLC has prepared, on behalf of XTO, a Release Closure Report for the Eunice Monument South Unit (EMSU) #266 (*EMSU #266* or *subject site*) where, based on a review of NMOCD records, a release of produced water and oil had occurred. This request for closure is based on a review of the NMOCD's Environmental and Administrative Records Database, historical aerial imagery, and recent confirmation soil sampling which demonstrated that remedial efforts took and appear to have been successful. A request for closure is being made to clearly document that the release has been addressed and that no further work is required.

The Initial C-141 Form associated with this release indicated that the release occurred on December 21, 2016 when a flow line froze due to low temperatures causing a rupture and releasing approximately 3.84 BBLs of oil and 92.22 BBBLs of produced water. The client's immediate remedial actions, including the use of a vacuum truck to clean up the standing fluids, resulted in the recovery of approximately 2.40 BBLs of oil and 57.60 BBLs of produced water. In addition to the immediate recovery efforts, aerial imagery and soil sampling indicated that soil in the area had been excavated and likely replaced with fresh backfill. The full soil sampling results are available herein and demonstrate compliance with applicable regulatory limits. An updated Final C-141 Form containing the Closure Request related to this release is available in **Attachment A**.

### ***Site Assessment, Characterization, and Groundwater Depth Determination***

As part of assessment and characterization of the subject site, aerial imagery was evaluated for the presence of major watercourses within a 0.5-mile radius of the release site. Aerial imagery demonstrating the absence of such watercourses within a 0.5-mile radius of the release site can be found within **Attachment B**.

A groundwater depth evaluation was performed as well. The relevant New Mexico Office of the State Engineer (NMOSE) and the United States Geological Survey (USGS) databases and GIS query tools were reviewed for groundwater depth information. A 0.5-mile bounding box was utilized when searching the USGS National Water Information System; however, no results appeared within this radius. A similar query was performed using the NMOSE Water Rights Reporting System, and it revealed two (2) wells drilled between 1985 and 1988 located within 1.0-mile of the subject site with a depth to water at approximately 200 feet. Please see **Figure 1** and **Figure 2** on the following pages for the results of the USGS and NMOSE queries which have established groundwater depth at the site to be approximately 200 feet below ground surface ('bgs). Therefore, the appropriate remediation standard specified in the NMOCD Table 1 (NMAC 19.15.29.11) will be applied.

**USGS**  
science for a changing world

**National Water Information System: Web Interface**

USGS Water Resources

Data Category: Groundwater Geographic Area: United States

USGS Home  
Contact USGS  
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Click to hide News Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

**Search Results -- No sites found**  
No sites were found for groundwater level data using your search criteria.

The sites you requested may be available offline. For more information, contact [USGS Water Data Inquiries](#).

lat_long_bounding_box =	<table border="1"><thead><tr><th>Position</th><th>Latitude</th><th>Longitude</th></tr></thead><tbody><tr><td>Corner 1</td><td>32°00'00.516415"</td><td>-103°00'00.261000"</td></tr><tr><td>Corner 2</td><td>32°00'00.487604"</td><td>-103°00'00.226754"</td></tr></tbody></table>	Position	Latitude	Longitude	Corner 1	32°00'00.516415"	-103°00'00.261000"	Corner 2	32°00'00.487604"	-103°00'00.226754"
Position	Latitude	Longitude								
Corner 1	32°00'00.516415"	-103°00'00.261000"								
Corner 2	32°00'00.487604"	-103°00'00.226754"								

Coordinates are entered as Degrees-Minutes-Seconds (DMS). DMS values are converted to Decimal degrees using NAD83 as the datum. Make your bounding box bigger if you are using NAD27 Datum for your DMS values

Minimum number of levels 1

Return To Previous Page

*Figure 1. USGS National Water Information System – No results within 1.0-mile of subject site*



## New Mexico Office of the State Engineer

# Point of Diversion Summary

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

<b>Well Tag</b>	<b>POD Number</b>	<b>Q64 Q16 Q4</b>	<b>Sec Tws Rng</b>	<b>X</b>	<b>Y</b>
CP 00734		1 10 21S 36E		663713	3596862*

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<b>Driller License:</b> 208	<b>Driller Company:</b> VAN NOY, W.L.	
<b>Driller Name:</b> VAN NOY, W.L.		
<b>Drill Start Date:</b> 06/18/1988	<b>Drill Finish Date:</b> 06/22/1988	<b>Plug Date:</b>
<b>Log File Date:</b> 06/30/1988	<b>PCW Rcv Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b>
<b>Casing Size:</b> 6.63	<b>Depth Well:</b> 215 feet	<b>Depth Water:</b> 200 feet

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Water Bearing Stratifications:	Top	Bottom	Description
	200	215	Sandstone/Gravel/Conglomerate

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Casing Perforations:	Top	Bottom
	196	211

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\*UTM location was derived from PLSS - see Help

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

9/26/18 1:48 PM
Page 1 of 1
POD SUMMARY - CP 00734

Figure 2. NMOSE Query Results (Groundwater at 200' bgs)

Given a groundwater depth of approximately 200' bgs, the appropriate closure criteria for impacted soils at the subject site would appear to be as follows:

**Table 1:** Site Closure Criteria (Adapted from NMOCD Table 1(NMAC 19.15.29.11))

<b>Closure Criteria for Soils Impacted by a Release: Minimum depth below any point within the horizontal boundary of the release to groundwater is greater than 200 feet</b>	
<b>Constituent</b>	<b>Limit (mg/Kg)</b>
Chloride	20,000
TPH (Total Petroleum Hydrocarbons) (GRO+DRO+MRO)	2,500
TPH (Total Petroleum Hydrocarbons) (GRO+DRO)	1,000
BTEX (Benzene, Toluene, Ethylbenzene, and Xylenes)	50
Benzene	10

Remedial activities appear to have taken place at this location; however, the corresponding paperwork and NMOCD submissions could not be located. Therefore, confirmation soil samples were collected from within the footprint of the release as determined by a review of aerial imagery. The release footprint (approximately 4,000 ft<sup>2</sup>) was located near the well pad and is displayed on the Release Site Plan denoting sample location placement as shown in **Attachment C**.

### Soil Sampling Protocol and Scope

On November 02, 2018, discrete depth samples were collected utilizing a truck-mounted Geoprobe 540UD direct push unit. Soil samples were collected at the surface (0-6" bgs), 2' bgs, and 4' bgs the deepest point of auger refusal (whichever came first). Sample locations were selected to be representative of the affected area and to account for safety concerns regarding the position of safety hazards including subsurface lines and flowlines in the vicinity of the subject site.

Soil at the subject site was homogeneous and did not show visual or olfactory evidence of impact. The soil appeared to backfill material. For this reason, soil lithology data (*i.e.*, boring logs) data was generated only for the soil borehole location where the greatest depth (*i.e.*, 4' bgs at SB1) was prepared for inclusion in this report to show conditions at the site. The boring log is available in **Attachment D**.

All samples were properly collected and preserved in accordance with proper sampling protocols to ensure representative characterization of soils submitted to Eurofins TestAmerica, a NELAP certified laboratory, under proper chain-of-custody for analysis. Each constituent was analyzed using appropriate analytical methods. Chlorides were analyzed using EPA Method 300, Total Petroleum Hydrocarbons (TPH) using Method 8015B, and BTEX constituents on the using Method 8260.

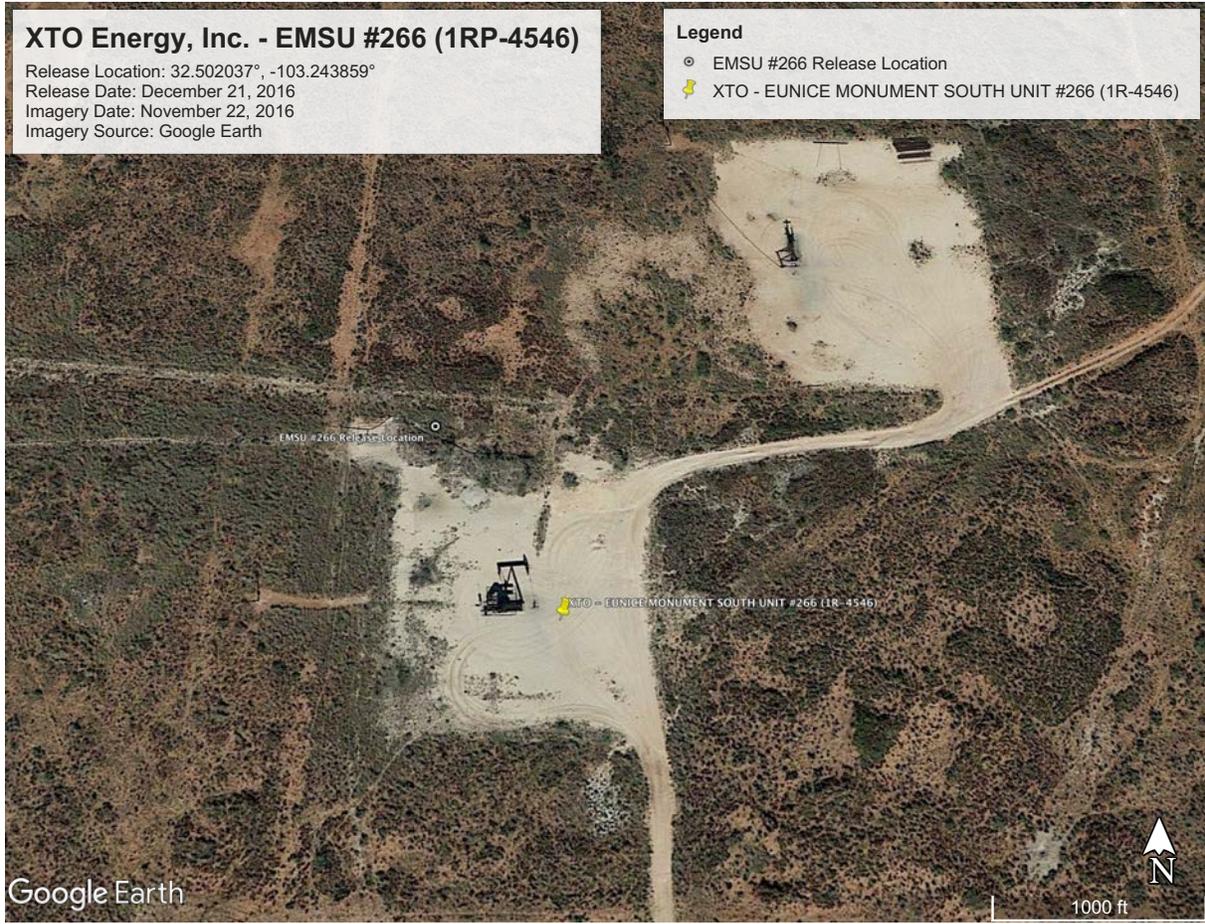
## Soil Sampling Results

Laboratory analytical results confirmed that impacts from the release had been addressed in the past and that the subject site is clean. A summary of results is available in the table below and full analytical results, inclusive of the chain-of-custody, are provided in **Attachment E**.

**Table 2. Soil Sampling Results (November 2, 2018 Confirmation Sampling)**

Analyte Units	BTEX				Total Petroleum Hydrocarbons (TPH)			Chloride
	Benzene mg/Kg	Toluene mg/Kg	Ethylbenzene mg/Kg	Xylenes, Total mg/Kg	Gasoline Range Organics [C6 - C10] mg/Kg	MRO (C28-C35) mg/Kg	Diesel Range Organics [C10-C28] mg/Kg	Chloride mg/Kg
Closure Criteria for Soils Impacted by a Release where the Depth to Groundwater is greater than 100' bgs	10	Total BTEX Limit is 50 mg/Kg			Total TPH Limit is 2,500 mg/Kg GRO+DRO limit is 1,000 mg/Kg			20,000
490-162713-1 EMSU 266 - West Bore - 5001 @ 0-6" bgs 11/2/2018 11:06 AM	ND	ND	ND	ND	ND	142	106	ND
490-162713-2 EMSU 266 - West Bore - 5001 @ 2' bgs 11/2/2018 11:06 AM	ND	ND	ND	ND	ND	7.85	ND	ND
490-162713-3 EMSU 266 - West Bore - 5001 @ 4' bgs 11/2/2018 11:06 AM	ND	ND	ND	ND	ND	3.75	ND	23.3
490-162713-4 EMSU 266 - East Bore - 5001 @ 0-6" bgs 11/2/2018 12:12 PM	ND	0.000954	ND	0.000655	ND	17.3	4.53	ND
490-162713-5 EMSU 266 - East Bore - 5001 @ 2' bgs 11/2/2018 12:12 PM	ND	ND	ND	ND	ND	10.2	ND	41.2

The confirmation soil samples showed that the soil at the subject site had been replaced with fresh soil. Small plants were growing within the release footprint. A review of aerial imagery depicting the subject site just prior to the release date to the most recent available images reveals that earthworks to remediate the release took place. The images associated with this review are available below for NMOCD's convenience. The images that follow depict the earthworks performed at the site and how the remedial efforts appear to have been successful.



**Figure 3.** Georeferenced Google Earth Image Depicting Release Point Identified in the Initial C-141. The subject site is shown in its pre-release condition.



**Figure 4.** Georeferenced Google Earth Image Depicting Release Point Identified in the Initial C-141. The subject site is shown after the release at a period when remedial activities were likely performed to address the release. Note that an excavated area is visible at the release location.



**Figure 5.** Georeferenced Google Earth Image Depicting Release Point Identified in the Initial C-141. Fresh soil appears to be visible and the excavation appears to have been filled with fresh soil.



**Figure 6.** Georeferenced Google Earth Image Depicting Release Point Identified in the Initial C-141. This is the most current aerial image of the subject site that is available at the time of report preparation. The image is from February of 2019 and shows that vegetation appears to have been re-established, though vegetation appears to be minimal in this image likely due to cooler winter temperatures.

As shown in Figure 3 through Figure 6, the remedial work that was performed has resulted in the re-establishment of vegetation at the subject site and the excavation that was present has been filled and graded to match the topography of the surrounding area. The geo-tagged site photos that follow provide additional close-up views of vegetation and topography.

**Geo-tagged Site Photographs**

Photographs showing the release location and soil sampling activities are provided in the photographic log below. All geotagged photographs contain the geographic coordinates, date, time, and other data associated with their capture.

**Photographic Log: October 22, 2018 and November 2, 2018**

Photograph	Description
<p>DIRECTION 32.50129°N ACCURACY 5 m NW (T) 103.24333°W DATUM WGS84</p>  <p>2018-10-22 15:38:59-05:00</p>	<p>The well pad and placard for the subject site is visible.</p> <p>This photograph was captured in October 2018 during a pre-sampling site survey to assess the location.</p>
<p>DIRECTION 32.50203°N ACCURACY 5 m W (T) 103.24356°W DATUM WGS84</p>  <p>2018-11-02 10:36:04-05:00</p>	<p>The subject site is visible. The photograph shows that vegetation is present at the subject site and that the topography matches the surrounding area.</p>



Soil boring 1 (SB1) sample location is pictured here. No visual or olfactory indications of contamination were present.



In addition to the standard one-call notification, a hydro-vac was utilized to clear the location prior to sampling due to safety concerns including the presence of flowlines and underground piping. The site is also located near electrical power lines.



Soil boring 2 (SB2) sample location is pictured here. No visual or olfactory indications of contamination were present.



After confirmation soil sampling was complete, the areas that were hydro-vac'ed were enclosed with orange mesh safety fencing as a protective measure.

***Request for Release Closure - Confirmation Sampling Demonstrates Subject Site is Remediated***

Based on the analytical data provided herein, the concentrations of all constituents (i.e., Chlorides, TPH, Benzene, Toluene, Ethylbenzene, and Xylenes) at the subject site were well below their respective limits. In addition, based on a review of aerial imagery and this confirmation sampling, it would appear that work was performed by the client in the past and that the remedial tasks were successful in restoring the subject site to its pre-release conditions. Vegetation has been reestablished and the topography of the location is similar to its surroundings.

Sport Environmental, on behalf of XTO Energy requests that closure status be granted for the EMSU B #266 which was assigned the 1R-4546 identifier. If NMOCD have any further questions or comments regarding this request for closure, please contact us at (432) 683-1100.

Sincerely,



Deborah S. Moore, ME, REPA, CESCO, RSO  
**President/Environmental Engineer**  
**Sport Environmental Services, LLC**

cc: Mr. Shelby Pennington (XTO Energy, Inc.)

XTO Energy, Inc. - EMSU #266 (1R-4546)

*List of Attachments:*

- A NMOCD Form C-141 (Closure)*
- B 0.5-Mile Radius Map Denoting Absence of Major Watercourses*
- C Release Site Plan Denoting Sample Locations*
- D Boring Log*
- E Full Analytical Results and Chain-of-Custody*

## Attachment A

### NMOCD Form C-141 (Closure)

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

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party XTO Energy, Inc.	OGRID 5380
Contact Name Mr. Shelby Pennington, Environmental Supervisor	Contact Telephone (281) 723-9353
Contact email Shelby_pennington@xtoenergy.com	Incident # (assigned by OCD)
Contact mailing address 6401 Holiday Hill Road, Midland, TX 79707	

### Location of Release Source

Latitude 32.501578 \_\_\_\_\_ Longitude -103.243517 \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Eunice Monument South Unit #266	Site Type Flow Line
Date Release Discovered December 21, 2016	API# (if applicable) 30-025-26101

Unit Letter	Section	Township	Range	County
U	2	21S	36E	Lea

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 3.84	Volume Recovered (bbls) 2.40
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 92.22	Volume Recovered (bbls) 57.60
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Note: This data was unavailable years after the release when this C-1141 was prepared. However, based on the concentrations of chlorides in the soil, the source water likely did not exceed 10,000 mg/L chlorides)
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release  
A poly flow line froze due to low temperatures and ruptured.

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?  The volume of fluid released exceeded 25 BBLs; therefore, the release is considered a major release.
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If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?  
 Yes, Mr. John Robinson (Maintenance Foreman for XTO) gave notice upon discovery by calling Ms. Kristen Lynch at NMOCD at approximately 1:00 p.m. on December 21, 2016.

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
--

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

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

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

Printed Name: Shelby Pennington Title: Environmental Coordinator  
 Signature: Shelby Pennington Date: 5/20/20  
 email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
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?	_____ 200 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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.

<p><b>Characterization Report Checklist:</b> <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.</li> <li><input checked="" type="checkbox"/> Field data</li> <li><input checked="" type="checkbox"/> Data table of soil contaminant concentration data</li> <li><input checked="" type="checkbox"/> Depth to water determination</li> <li><input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release</li> <li><input checked="" type="checkbox"/> Boring or excavation logs</li> <li><input checked="" type="checkbox"/> Photographs including date and GIS information (<b>NOTE: Photographs from the original work performed in 2016 are unavailable. However, aerial imagery from this period has been provided to supplement the record. Photos from current sampling include all metadata.</b>)</li> <li><input checked="" type="checkbox"/> Topographic/Aerial maps</li> <li><input checked="" type="checkbox"/> Laboratory data including chain of custody</li> </ul>
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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.

State of New Mexico  
Oil Conservation Division

Incident ID	
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: Shelby Pennington Title: Environmental Coordinator  
 Signature: Shelby Pennington Date: 5/20/20  
 email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

**NOTE: A Remediation Plan may have been prepared by the individuals who addressed this release in the past; however, a copy of the plan, if it exists, was unavailable when this formal request for closure was prepared.**

**Remediation Plan Checklist:** Each of the following items must be included in the plan.

- Detailed description of proposed remediation technique
- Scaled sitemap with GPS coordinates showing delineation points
- Estimated volume of material to be remediated
- Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** Each of the following items must be confirmed as part of any request for deferral of remediation.

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

- Approved       Approved with Attached Conditions of Approval       Denied       Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
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) *(Note: Due to the historical nature of this release, photographs are not available. However, aerial imagery showing the site prior to backfilling was available and is included in the closure report. In addition, several aerial images showing the recovery and revegetation of the subject site have also been included.)*
- 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: Shelby Pennington Title: Environmental Coordinator  
 Signature: *Shelby Pennington* Date: 5/20/20  
 email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

## Attachment B

### 0.5-Mile Radius Map Demonstrating Absence of Major Watercourses

# XTO Energy, Inc. - EMSU #266 (1RP-4546)

No major watercourses are present within a 0.5-mile radius of the subject site.  
Image Source: Google Earth (Image dated: November 2, 2017)  
Location: 32.501278°, -103.243517°

## Legend

-  0.5-mile radius
-  EMSU #266 Release Location
-  XTO - EUNICE MONUMENT SOUTH UNIT #266 (1R-4546)



Attachment C  
Release Site Plan  
Depicting Sample Locations

# XTO Energy, Inc. - EMSU #266 (1RP-4546)

Confirmation Soil Sampling Site Plan

Release Location: 32.502037°, -103.243859°

Release Date: December 21, 2016

Imagery Date: February 20, 2019

Imagery Source: Google Earth

## Legend

- EMSU #266 Release Location
- ◇ Soil Boring (Grab Sample) Location
- 📌 XTO - EUNICE MONUMENT SOUTH UNIT #266 (1R-4546)

SB1  
 SB2  
 EMSU #266 Release Location

📌 XTO - EUNICE MONUMENT SOUTH UNIT #266 (1R-4546)



## Attachment D

### Boring Log



**BORING AND WELL LOG LEGEND**

LITHOLOGY	WATER LEVEL	WELL/BORING COMPLETION	Sample Type	DESCRIPTION
-----------	-------------	------------------------	-------------	-------------

		<p>ASPHALT                  CONCRETE                  BEDROCK                  IGNEOUS Rock                  METAMORPHIC Rock                  SEDIMENTARY Rock                  Well-graded GRAVEL (GW)                  Poorly graded GRAVEL (GP)                  Silty GRAVEL (GM)                  Clayey GRAVEL (GC)                  Well-graded GRAVEL with silt (GW-GM)                  Poorly graded GRAVEL with silt (GP-GM)                  Well-graded GRAVEL with clay (GW-GC)                  Poorly graded GRAVEL with clay (GP-GC)                  Well-graded SAND (SW)                  Poorly graded SAND (SP)                  Silty SAND (SM)                  Clayey SAND (SC)                  Well-graded SAND with silt (SW-SM)                  Poorly graded SAND with silt (SP-SM)                  Well-graded SAND with clay (SW-SC)                  Poorly graded SAND with clay (SP-SC)                  SILT (ML)                  Lean CLAY (CL)                  Organic SOIL (OL)                  Elastic SILT (MH)                  Fat CLAY (CH)                  Organic SOIL (OH)                  Organic SOIL (OL/OH)                  PEAT (PT)                  Volume Descriptors:                  Trace = &lt;5%                  Few = 5-10%                  Little = 15-25%                  Some = 30-45%                  Mostly = &gt;=50%                  Water Level During Drilling                  Water Level at End of Drilling/in Completed Well                  Cap                  Riser                  Screen                  End Plug                  Annular Seal (Bentonite-Cement Grout, Bentonite Slurry/Chips/Pellets/Powder, Other)                  Sanitary Seal (Bentonite Slurry/Chips/Pellets/Powder, Other)                  Filter Pack (Sand, Gravel, Other)                  Backfill                  GR                  EN                  SS                  SH                  CO                  DP                  ID                  Lab Sample and ID</p>
--	--	--

NOTES:

	<b>Client:</b> XTO Energy, Inc.	<b>BORING LOG</b>
	<b>Project:</b> EMSU #266	<b>Boring No.</b> SB1
	<b>Address:</b> 502 N. Big Spring St., Midland, TX	<b>Page:</b> 1 of 1

Drilling Start Date: 11/02/2018 12:03	Boring Depth (ft): 4.0
Drilling End Date: 11/02/2018 12:10	Boring Diameter (in): 2.50
Drilling Company: Sport Environmental	Sampling Method(s):
Drilling Method: Hollow Stem Auger	DTW During Drilling (ft): N/A
Drilling Equipment: Geoprobe 540UD	DTW After Drilling (ft): N/A
Driller: Clint Elliott	Ground Surface Elev. (ft): 3,555.00
Logged By: Cianna Logie	Location (Lat, Long): 32.5202, -103.24388

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	MEASURE		ELEVATION (ft)	
				Sample Type	Time	Blow Counts	Recovery (ft)		PID (ppm)	Lab Sample		
0								(0') Poorly graded SAND with clay (SP-SC); mostly fine grained sand, medium dense, moist, 5YR (4/4) reddish brown			0	
1											1	
2												2
3												3
4								(4') Boring terminated			4	
5											5	

NOTES: Soil is homogenous, reddish brown in color, and sandy. This appears to be clean backfill soil and is present throughout the release area identified in aerial imagery.

## Attachment E

### Full Analytical Results and Chain-of-Custody

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Nashville  
2960 Foster Creighton Drive  
Nashville, TN 37204  
Tel: (615)726-0177

TestAmerica Job ID: 490-162713-1  
TestAmerica SDG: XTO Historical Release Characterization  
Client Project/Site: Eunice Monument South Unit #266  
Revision: 1

For:  
Sport Environmental Services LLC  
502 N Big Spring St  
Midland, Texas 79701

Attn: Debi Sport Moore

*Jennifer Gambill*

Authorized for release by:  
12/19/2018 12:44:20 PM

Jennifer Gambill, Project Manager I  
(615)301-5044  
[jennifer.gambill@testamericainc.com](mailto:jennifer.gambill@testamericainc.com)



### LINKS

Review your project results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Client: Sport Environmental Services LLC  
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
SDG: XTO Historical Release Characterization



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### Sample Summary

Client: Sport Environmental Services LLC  
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
SDG: XTO Historical Release Characterization

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Solid	11/02/18 11:06	11/07/18 09:55
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Solid	11/02/18 11:06	11/07/18 09:55
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Solid	11/02/18 11:06	11/07/18 09:55
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Solid	11/02/18 12:12	11/07/18 09:55
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Solid	11/02/18 12:12	11/07/18 09:55

- 1
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- 7
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- 10
- 11
- 12

### Case Narrative

Client: Sport Environmental Services LLC  
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
SDG: XTO Historical Release Characterization

**Job ID: 490-162713-1**

**Laboratory: TestAmerica Nashville**

**Narrative**

**Job Narrative  
490-162713-1**

**Revised Report**

The following report has been revised to correct the following sample IDs per the chain of custody: EMSU 266 - West Bore - S001 @ 0-6" bgs (490-162713-1) and EMSU 266 - East Bore - S001 @ 0-6" bgs (490-162713-4).

**Comments**

No additional comments.

**Receipt**

The samples were received on 11/7/2018 9:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9° C.

A revised chain of custody was received with additional project name and site information included. This chain is included in the final report.

**HPLC/IC**

Method(s) 300.0: The following samples were diluted due to the nature of the sample matrix: EMSU 266 - West Bore - S001 @ 0-6" bgs (490-162713-1), EMSU 266 - West Bore - S001 @ 2' bgs (490-162713-2) and EMSU 266 - East Bore - S001 @ 2' bgs (490-162713-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Definitions/Glossary

Client: Sport Environmental Services LLC  
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
SDG: XTO Historical Release Characterization

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Client Sample Results

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

Client Sample ID: EMSU 266 - West Bore - S001 @ 0-6" bgs

Lab Sample ID: 490-162713-1

Date Collected: 11/02/18 11:06

Matrix: Solid

Date Received: 11/07/18 09:55

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00182	0.000609	mg/Kg		11/07/18 11:54	11/08/18 03:01	1
Ethylbenzene	ND		0.00182	0.000609	mg/Kg		11/07/18 11:54	11/08/18 03:01	1
Toluene	ND		0.00182	0.000673	mg/Kg		11/07/18 11:54	11/08/18 03:01	1
Xylenes, Total	ND		0.00545	0.00112	mg/Kg		11/07/18 11:54	11/08/18 03:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		70 - 130	11/07/18 11:54	11/08/18 03:01	1
4-Bromofluorobenzene (Surr)	116		70 - 130	11/07/18 11:54	11/08/18 03:01	1
Dibromofluoromethane (Surr)	123		70 - 130	11/07/18 11:54	11/08/18 03:01	1
Toluene-d8 (Surr)	97		70 - 130	11/07/18 11:54	11/08/18 03:01	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.93	2.47	mg/Kg		11/07/18 11:44	11/08/18 13:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	88		50 - 150	11/07/18 11:44	11/08/18 13:40	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	106		4.93	2.47	mg/Kg		11/07/18 12:58	11/08/18 15:40	1
MRO (C28-C35)	142		4.93	2.47	mg/Kg		11/07/18 12:58	11/08/18 15:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	91		50 - 150	11/07/18 12:58	11/08/18 15:40	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		10.1	7.05	mg/Kg			11/08/18 21:34	1

TestAmerica Nashville

## Client Sample Results

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

Client Sample ID: EMSU 266 - West Bore - S001 @ 2' bgs

Lab Sample ID: 490-162713-2

Date Collected: 11/02/18 11:06

Matrix: Solid

Date Received: 11/07/18 09:55

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00198	0.000665	mg/Kg		11/07/18 11:54	11/08/18 03:30	1
Ethylbenzene	ND		0.00198	0.000665	mg/Kg		11/07/18 11:54	11/08/18 03:30	1
Toluene	ND		0.00198	0.000734	mg/Kg		11/07/18 11:54	11/08/18 03:30	1
Xylenes, Total	ND		0.00595	0.00122	mg/Kg		11/07/18 11:54	11/08/18 03:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 130	11/07/18 11:54	11/08/18 03:30	1
4-Bromofluorobenzene (Surr)	112		70 - 130	11/07/18 11:54	11/08/18 03:30	1
Dibromofluoromethane (Surr)	123		70 - 130	11/07/18 11:54	11/08/18 03:30	1
Toluene-d8 (Surr)	96		70 - 130	11/07/18 11:54	11/08/18 03:30	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.83	2.41	mg/Kg		11/07/18 11:44	11/08/18 21:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	88		50 - 150	11/07/18 11:44	11/08/18 21:32	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.98	2.49	mg/Kg		11/07/18 12:58	11/08/18 15:57	1
<b>MRO (C28-C35)</b>	<b>7.85</b>		4.98	2.49	mg/Kg		11/07/18 12:58	11/08/18 15:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	71		50 - 150	11/07/18 12:58	11/08/18 15:57	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		9.91	6.94	mg/Kg			11/08/18 21:46	1

TestAmerica Nashville

## Client Sample Results

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

Client Sample ID: EMSU 266 - West Bore - S001 @ 4' bgs

Lab Sample ID: 490-162713-3

Date Collected: 11/02/18 11:06

Matrix: Solid

Date Received: 11/07/18 09:55

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000669	mg/Kg		11/07/18 11:54	11/08/18 03:59	1
Ethylbenzene	ND		0.00200	0.000669	mg/Kg		11/07/18 11:54	11/08/18 03:59	1
Toluene	ND		0.00200	0.000739	mg/Kg		11/07/18 11:54	11/08/18 03:59	1
Xylenes, Total	ND		0.00599	0.00123	mg/Kg		11/07/18 11:54	11/08/18 03:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		70 - 130	11/07/18 11:54	11/08/18 03:59	1
4-Bromofluorobenzene (Surr)	110		70 - 130	11/07/18 11:54	11/08/18 03:59	1
Dibromofluoromethane (Surr)	130		70 - 130	11/07/18 11:54	11/08/18 03:59	1
Toluene-d8 (Surr)	92		70 - 130	11/07/18 11:54	11/08/18 03:59	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.92	2.46	mg/Kg		11/07/18 11:44	11/08/18 22:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	87		50 - 150	11/07/18 11:44	11/08/18 22:07	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.96	2.48	mg/Kg		11/07/18 12:58	11/08/18 16:14	1
MRO (C28-C35)	3.75	J	4.96	2.48	mg/Kg		11/07/18 12:58	11/08/18 16:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	66		50 - 150	11/07/18 12:58	11/08/18 16:14	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.3		9.99	7.00	mg/Kg			11/08/18 21:57	1

TestAmerica Nashville

## Client Sample Results

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

Client Sample ID: EMSU 266 - East Bore - S001 @ 0-6" bgs

Lab Sample ID: 490-162713-4

Date Collected: 11/02/18 12:12

Matrix: Solid

Date Received: 11/07/18 09:55

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000655	J	0.00183	0.000615	mg/Kg		11/07/18 11:54	11/08/18 04:28	1
Ethylbenzene	ND		0.00183	0.000615	mg/Kg		11/07/18 11:54	11/08/18 04:28	1
Toluene	0.000954	J	0.00183	0.000679	mg/Kg		11/07/18 11:54	11/08/18 04:28	1
Xylenes, Total	ND		0.00550	0.00113	mg/Kg		11/07/18 11:54	11/08/18 04:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130	11/07/18 11:54	11/08/18 04:28	1
4-Bromofluorobenzene (Surr)	114		70 - 130	11/07/18 11:54	11/08/18 04:28	1
Dibromofluoromethane (Surr)	124		70 - 130	11/07/18 11:54	11/08/18 04:28	1
Toluene-d8 (Surr)	96		70 - 130	11/07/18 11:54	11/08/18 04:28	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.86	2.43	mg/Kg		11/07/18 11:44	11/08/18 22:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	87		50 - 150	11/07/18 11:44	11/08/18 22:42	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	4.53	J	5.00	2.50	mg/Kg		11/07/18 12:58	11/08/18 16:31	1
MRO (C28-C35)	17.3		5.00	2.50	mg/Kg		11/07/18 12:58	11/08/18 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	56		50 - 150	11/07/18 12:58	11/08/18 16:31	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		9.97	6.98	mg/Kg			11/08/18 22:09	1

TestAmerica Nashville

## Client Sample Results

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

Client Sample ID: EMSU 266 - East Bore - S001 @ 2' bgs

Lab Sample ID: 490-162713-5

Date Collected: 11/02/18 12:12

Matrix: Solid

Date Received: 11/07/18 09:55

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00184	0.000617	mg/Kg		11/07/18 11:54	11/08/18 04:56	1
Ethylbenzene	ND		0.00184	0.000617	mg/Kg		11/07/18 11:54	11/08/18 04:56	1
Toluene	ND		0.00184	0.000681	mg/Kg		11/07/18 11:54	11/08/18 04:56	1
Xylenes, Total	ND		0.00552	0.00113	mg/Kg		11/07/18 11:54	11/08/18 04:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130	11/07/18 11:54	11/08/18 04:56	1
4-Bromofluorobenzene (Surr)	116		70 - 130	11/07/18 11:54	11/08/18 04:56	1
Dibromofluoromethane (Surr)	125		70 - 130	11/07/18 11:54	11/08/18 04:56	1
Toluene-d8 (Surr)	95		70 - 130	11/07/18 11:54	11/08/18 04:56	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.87	2.44	mg/Kg		11/07/18 11:44	11/08/18 23:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	88		50 - 150	11/07/18 11:44	11/08/18 23:17	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.98	2.49	mg/Kg		11/07/18 12:58	11/08/18 16:49	1
<b>MRO (C28-C35)</b>	<b>10.2</b>		4.98	2.49	mg/Kg		11/07/18 12:58	11/08/18 16:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	71		50 - 150	11/07/18 12:58	11/08/18 16:49	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.2		9.92	6.94	mg/Kg			11/08/18 22:21	1

TestAmerica Nashville

### QC Sample Results

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

#### Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: 490-162714-B-9-D MS

Matrix: Solid  
 Analysis Batch: 555742

Client Sample ID: Matrix Spike

Prep Type: Total/NA  
 Prep Batch: 555601

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzene	ND		0.0447	0.04123		mg/Kg		92	21 - 150
Ethylbenzene	ND		0.0447	0.03513		mg/Kg		79	10 - 150
Toluene	ND		0.0447	0.03740		mg/Kg		84	17 - 150
Xylenes, Total	ND		0.0894	0.07369		mg/Kg		82	10 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	108		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Lab Sample ID: 490-162714-B-9-E MSD

Matrix: Solid  
 Analysis Batch: 555742

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA  
 Prep Batch: 555601

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	ND		0.0489	0.04813		mg/Kg		98	21 - 150	15	50
Ethylbenzene	ND		0.0489	0.04395		mg/Kg		90	10 - 150	22	50
Toluene	ND		0.0489	0.04555		mg/Kg		93	17 - 150	20	50
Xylenes, Total	ND		0.0978	0.09141		mg/Kg		93	10 - 150	21	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	108		70 - 130
Toluene-d8 (Surr)	98		70 - 130

Lab Sample ID: MB 490-555742/7

Matrix: Solid  
 Analysis Batch: 555742

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			11/08/18 01:33	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			11/08/18 01:33	1
Toluene	ND		0.00200	0.000740	mg/Kg			11/08/18 01:33	1
Xylenes, Total	ND		0.00600	0.00123	mg/Kg			11/08/18 01:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 130		11/08/18 01:33	1
4-Bromofluorobenzene (Surr)	109		70 - 130		11/08/18 01:33	1
Dibromofluoromethane (Surr)	122		70 - 130		11/08/18 01:33	1
Toluene-d8 (Surr)	94		70 - 130		11/08/18 01:33	1

TestAmerica Nashville

### QC Sample Results

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

#### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-555742/4  
 Matrix: Solid  
 Analysis Batch: 555742

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04740		mg/Kg		95	70 - 130
Ethylbenzene	0.0500	0.04180		mg/Kg		84	70 - 130
Toluene	0.0500	0.04340		mg/Kg		87	70 - 130
Xylenes, Total	0.100	0.08695		mg/Kg		87	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	105		70 - 130
Dibromofluoromethane (Surr)	105		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Lab Sample ID: LCSD 490-555742/25  
 Matrix: Solid  
 Analysis Batch: 555742

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.05224		mg/Kg		104	70 - 130	10	37
Ethylbenzene	0.0500	0.04600		mg/Kg		92	70 - 130	10	38
Toluene	0.0500	0.04788		mg/Kg		96	70 - 130	10	40
Xylenes, Total	0.100	0.09625		mg/Kg		96	70 - 130	10	38

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	107		70 - 130
Toluene-d8 (Surr)	95		70 - 130

#### Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 490-555592/1-A  
 Matrix: Solid  
 Analysis Batch: 555799

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 555592

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.00	2.50	mg/Kg		11/07/18 11:44	11/08/18 11:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	87		50 - 150	11/07/18 11:44	11/08/18 11:55	1

Lab Sample ID: LCS 490-555592/2-A  
 Matrix: Solid  
 Analysis Batch: 555799

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 555592

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	50.0	52.35		mg/Kg		105	70 - 130

TestAmerica Nashville

### QC Sample Results

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

#### Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCS 490-555592/2-A  
 Matrix: Solid  
 Analysis Batch: 555799

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 555592

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	78		50 - 150

Lab Sample ID: LCSD 490-555592/3-A  
 Matrix: Solid  
 Analysis Batch: 555799

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 555592

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	50.0	54.05		mg/Kg		108	70 - 130	3	21

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
a,a,a-Trifluorotoluene	78		50 - 150

Lab Sample ID: 490-162713-5 MS  
 Matrix: Solid  
 Analysis Batch: 555799

Client Sample ID: EMSU 266 - East Bore - S001 @ 2' bgs  
 Prep Type: Total/NA  
 Prep Batch: 555592

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	ND		48.7	43.74		mg/Kg		90	56 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
a,a,a-Trifluorotoluene	78		50 - 150

Lab Sample ID: 490-162713-5 MSD  
 Matrix: Solid  
 Analysis Batch: 555799

Client Sample ID: EMSU 266 - East Bore - S001 @ 2' bgs  
 Prep Type: Total/NA  
 Prep Batch: 555592

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		48.7	37.96		mg/Kg		78	56 - 130	14	21

Surrogate	MSD %Recovery	MSD Qualifier	Limits
a,a,a-Trifluorotoluene	80		50 - 150

#### Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 490-555145/1-A  
 Matrix: Solid  
 Analysis Batch: 555227

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 555145

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		5.00	2.50	mg/Kg		11/06/18 09:17	11/06/18 13:59	1
MRO (C28-C35)	ND		5.00	2.50	mg/Kg		11/06/18 09:17	11/06/18 13:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	74		50 - 150	11/06/18 09:17	11/06/18 13:59	1

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### QC Sample Results

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

#### Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 490-555145/2-A  
 Matrix: Solid  
 Analysis Batch: 555227

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 555145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Diesel Range Organics [C10-C28]	40.0	36.22		mg/Kg		91	54 - 130
<b>Surrogate</b>		<b>LCS %Recovery</b>	<b>LCS Qualifier</b>				<b>Limits</b>
<i>o-Terphenyl (Surr)</i>		80					50 - 150

Lab Sample ID: 490-162556-H-10-B MS  
 Matrix: Solid  
 Analysis Batch: 555227

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA  
 Prep Batch: 555145

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Diesel Range Organics [C10-C28]	7.68		39.5	32.94		mg/Kg		64	10 - 142
<b>Surrogate</b>		<b>MS %Recovery</b>		<b>MS Qualifier</b>					<b>Limits</b>
<i>o-Terphenyl (Surr)</i>		63							50 - 150

Lab Sample ID: 490-162556-H-10-C MSD  
 Matrix: Solid  
 Analysis Batch: 555227

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Total/NA  
 Prep Batch: 555145

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Diesel Range Organics [C10-C28]	7.68		39.1	35.65		mg/Kg		71	10 - 142	8	47
<b>Surrogate</b>		<b>MSD %Recovery</b>		<b>MSD Qualifier</b>					<b>Limits</b>		<b>Limit</b>
<i>o-Terphenyl (Surr)</i>		63							50 - 150		

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 490-555803/1-A  
 Matrix: Solid  
 Analysis Batch: 556035

Client Sample ID: Method Blank  
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		9.99	6.99	mg/Kg			11/08/18 20:13	1

Lab Sample ID: LCS 490-555803/2-A  
 Matrix: Solid  
 Analysis Batch: 556035

Client Sample ID: Lab Control Sample  
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chloride	100	97.09		mg/Kg		97	90 - 110

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### QC Sample Results

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

#### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 490-555803/3-A  
 Matrix: Solid  
 Analysis Batch: 556035

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	98.99		mg/Kg		99	90 - 110	2	20

Lab Sample ID: 490-162712-A-1-C MS  
 Matrix: Solid  
 Analysis Batch: 556035

Client Sample ID: Matrix Spike  
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	ND		101	101.0		mg/Kg		100	80 - 120

Lab Sample ID: 490-162712-A-1-D MSD  
 Matrix: Solid  
 Analysis Batch: 556035

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	ND		101	101.2		mg/Kg		100	80 - 120	0	20

## QC Association Summary

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

## GC/MS VOA

## Prep Batch: 555601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Total/NA	Solid	5030B	
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Total/NA	Solid	5030B	
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Total/NA	Solid	5030B	
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Total/NA	Solid	5030B	
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	5030B	
490-162714-B-9-D MS	Matrix Spike	Total/NA	Solid	5030B	
490-162714-B-9-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5030B	

## Analysis Batch: 555742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Total/NA	Solid	8260B	555601
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Total/NA	Solid	8260B	555601
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Total/NA	Solid	8260B	555601
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Total/NA	Solid	8260B	555601
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	8260B	555601
MB 490-555742/7	Method Blank	Total/NA	Solid	8260B	
LCS 490-555742/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-555742/25	Lab Control Sample Dup	Total/NA	Solid	8260B	
490-162714-B-9-D MS	Matrix Spike	Total/NA	Solid	8260B	555601
490-162714-B-9-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	555601

## GC VOA

## Prep Batch: 555592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Total/NA	Solid	5030B	
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Total/NA	Solid	5030B	
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Total/NA	Solid	5030B	
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Total/NA	Solid	5030B	
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	5030B	
MB 490-555592/1-A	Method Blank	Total/NA	Solid	5030B	
LCS 490-555592/2-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 490-555592/3-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
490-162713-5 MS	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	5030B	
490-162713-5 MSD	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	5030B	

## Analysis Batch: 555799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Total/NA	Solid	8015B	555592
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Total/NA	Solid	8015B	555592
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Total/NA	Solid	8015B	555592
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Total/NA	Solid	8015B	555592
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	8015B	555592
MB 490-555592/1-A	Method Blank	Total/NA	Solid	8015B	555592
LCS 490-555592/2-A	Lab Control Sample	Total/NA	Solid	8015B	555592
LCSD 490-555592/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	555592
490-162713-5 MS	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	8015B	555592
490-162713-5 MSD	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	8015B	555592

TestAmerica Nashville

## QC Association Summary

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

## GC Semi VOA

## Prep Batch: 555145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Total/NA	Solid	3550C	
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Total/NA	Solid	3550C	
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Total/NA	Solid	3550C	
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Total/NA	Solid	3550C	
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	3550C	
MB 490-555145/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 490-555145/2-A	Lab Control Sample	Total/NA	Solid	3550C	
490-162556-H-10-B MS	Matrix Spike	Total/NA	Solid	3550C	
490-162556-H-10-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	

## Analysis Batch: 555227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 490-555145/1-A	Method Blank	Total/NA	Solid	8015B	555145
LCS 490-555145/2-A	Lab Control Sample	Total/NA	Solid	8015B	555145
490-162556-H-10-B MS	Matrix Spike	Total/NA	Solid	8015B	555145
490-162556-H-10-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	555145

## Analysis Batch: 555918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Total/NA	Solid	8015B	555145
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Total/NA	Solid	8015B	555145
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Total/NA	Solid	8015B	555145
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Total/NA	Solid	8015B	555145
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	8015B	555145

## HPLC/IC

## Leach Batch: 555803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Soluble	Solid	DI Leach	
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Soluble	Solid	DI Leach	
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Soluble	Solid	DI Leach	
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Soluble	Solid	DI Leach	
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Soluble	Solid	DI Leach	
MB 490-555803/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 490-555803/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 490-555803/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
490-162712-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
490-162712-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 556035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Soluble	Solid	300.0	555803
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Soluble	Solid	300.0	555803
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Soluble	Solid	300.0	555803
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Soluble	Solid	300.0	555803
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Soluble	Solid	300.0	555803
MB 490-555803/1-A	Method Blank	Soluble	Solid	300.0	555803
LCS 490-555803/2-A	Lab Control Sample	Soluble	Solid	300.0	555803
LCSD 490-555803/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	555803

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### QC Association Summary

Client: Sport Environmental Services LLC  
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
SDG: XTO Historical Release Characterization

#### HPLC/IC (Continued)

#### Analysis Batch: 556035 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162712-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	555803
490-162712-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	555803

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

## Lab Chronicle

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

**Client Sample ID: EMSU 266 - West Bore - S001 @ 0-6" bgs**

**Lab Sample ID: 490-162713-1**

**Date Collected: 11/02/18 11:06**

**Matrix: Solid**

**Date Received: 11/07/18 09:55**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.50 g	5.0 mL	555601	11/07/18 11:54	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	555742	11/08/18 03:01	PN	TAL NSH
Total/NA	Prep	5030B			5.07 g	5.0 mL	555592	11/07/18 11:44	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	555799	11/08/18 13:40	S1S	TAL NSH
Total/NA	Prep	3550C			25.34 g	1.00 mL	555145	11/07/18 12:58	MBV	TAL NSH
Total/NA	Analysis	8015B		1			555918	11/08/18 15:40	S1S	TAL NSH
Soluble	Leach	DI Leach			2.9808 g	30 mL	555803	11/08/18 07:35	JHS	TAL NSH
Soluble	Analysis	300.0		1			556035	11/08/18 21:34	SOO	TAL NSH

**Client Sample ID: EMSU 266 - West Bore - S001 @ 2' bgs**

**Lab Sample ID: 490-162713-2**

**Date Collected: 11/02/18 11:06**

**Matrix: Solid**

**Date Received: 11/07/18 09:55**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.04 g	5.0 mL	555601	11/07/18 11:54	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	555742	11/08/18 03:30	PN	TAL NSH
Total/NA	Prep	5030B			5.18 g	5.0 mL	555592	11/07/18 11:44	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	555799	11/08/18 21:32	S1S	TAL NSH
Total/NA	Prep	3550C			25.11 g	1.00 mL	555145	11/07/18 12:58	MBV	TAL NSH
Total/NA	Analysis	8015B		1			555918	11/08/18 15:57	S1S	TAL NSH
Soluble	Leach	DI Leach			3.0278 g	30 mL	555803	11/08/18 07:35	JHS	TAL NSH
Soluble	Analysis	300.0		1			556035	11/08/18 21:46	SOO	TAL NSH

**Client Sample ID: EMSU 266 - West Bore - S001 @ 4' bgs**

**Lab Sample ID: 490-162713-3**

**Date Collected: 11/02/18 11:06**

**Matrix: Solid**

**Date Received: 11/07/18 09:55**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5.0 mL	555601	11/07/18 11:54	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	555742	11/08/18 03:59	PN	TAL NSH
Total/NA	Prep	5030B			5.08 g	5.0 mL	555592	11/07/18 11:44	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	555799	11/08/18 22:07	S1S	TAL NSH
Total/NA	Prep	3550C			25.21 g	1.00 mL	555145	11/07/18 12:58	MBV	TAL NSH
Total/NA	Analysis	8015B		1			555918	11/08/18 16:14	S1S	TAL NSH
Soluble	Leach	DI Leach			3.0016 g	30 mL	555803	11/08/18 07:35	JHS	TAL NSH
Soluble	Analysis	300.0		1			556035	11/08/18 21:57	SOO	TAL NSH

**Client Sample ID: EMSU 266 - East Bore - S001 @ 0-6" bgs**

**Lab Sample ID: 490-162713-4**

**Date Collected: 11/02/18 12:12**

**Matrix: Solid**

**Date Received: 11/07/18 09:55**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.45 g	5.0 mL	555601	11/07/18 11:54	JLP	TAL NSH

TestAmerica Nashville

## Lab Chronicle

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

**Client Sample ID: EMSU 266 - East Bore - S001 @ 0-6" bgs**

**Lab Sample ID: 490-162713-4**

**Date Collected: 11/02/18 12:12**

**Matrix: Solid**

**Date Received: 11/07/18 09:55**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 g	5 mL	555742	11/08/18 04:28	PN	TAL NSH
Total/NA	Prep	5030B			5.14 g	5.0 mL	555592	11/07/18 11:44	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	555799	11/08/18 22:42	S1S	TAL NSH
Total/NA	Prep	3550C			25.02 g	1.00 mL	555145	11/07/18 12:58	MBV	TAL NSH
Total/NA	Analysis	8015B		1			555918	11/08/18 16:31	S1S	TAL NSH
Soluble	Leach	DI Leach			3.0101 g	30 mL	555803	11/08/18 07:35	JHS	TAL NSH
Soluble	Analysis	300.0		1			556035	11/08/18 22:09	SOO	TAL NSH

**Client Sample ID: EMSU 266 - East Bore - S001 @ 2' bgs**

**Lab Sample ID: 490-162713-5**

**Date Collected: 11/02/18 12:12**

**Matrix: Solid**

**Date Received: 11/07/18 09:55**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.43 g	5.0 mL	555601	11/07/18 11:54	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	555742	11/08/18 04:56	PN	TAL NSH
Total/NA	Prep	5030B			5.13 g	5.0 mL	555592	11/07/18 11:44	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	555799	11/08/18 23:17	S1S	TAL NSH
Total/NA	Prep	3550C			25.08 g	1.00 mL	555145	11/07/18 12:58	MBV	TAL NSH
Total/NA	Analysis	8015B		1			555918	11/08/18 16:49	S1S	TAL NSH
Soluble	Leach	DI Leach			3.0245 g	30 mL	555803	11/08/18 07:35	JHS	TAL NSH
Soluble	Analysis	300.0		1			556035	11/08/18 22:21	SOO	TAL NSH

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

# Method Summary

Client: Sport Environmental Services LLC  
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
SDG: XTO Historical Release Characterization

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8015B	Gasoline Range Organics - (GC)	SW846	TAL NSH
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL NSH
300.0	Anions, Ion Chromatography	MCAWW	TAL NSH
3550C	Ultrasonic Extraction	SW846	TAL NSH
5030B	Purge and Trap	SW846	TAL NSH
DI Leach	Deionized Water Leaching Procedure	ASTM	TAL NSH

**Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



## Accreditation/Certification Summary

Client: Sport Environmental Services LLC  
 Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1  
 SDG: XTO Historical Release Characterization

### Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	06-30-19
Arizona	State Program	9	AZ0473	05-05-19
Arkansas DEQ	State Program	6	88-0737	04-25-19
California	State Program	9	2938	10-31-18 *
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-19
Georgia	State Program	4	NA: NELAP & A2LA	12-31-19
Illinois	NELAP	5	200010	12-09-18 *
Iowa	State Program	7	131	04-01-20
Kansas	NELAP	7	E-10229	10-31-19
Kentucky (UST)	State Program	4	19	06-30-19
Kentucky (WW)	State Program	4	90038	12-31-18
Louisiana	NELAP	6	30613	06-30-19
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-19
Massachusetts	State Program	1	M-TN032	06-30-19
Minnesota	NELAP	5	047-999-345	12-31-18
Mississippi	State Program	4	N/A	06-30-19
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-19
New Hampshire	NELAP	1	2963	10-09-19
New Jersey	NELAP	2	TN965	06-30-19
New York	NELAP	2	11342	03-31-19
North Carolina (WW/SW)	State Program	4	387	12-31-18
North Dakota	State Program	8	R-146	06-30-19
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-19
Oregon	NELAP	10	TN200001	04-26-19
Pennsylvania	NELAP	3	68-00585	07-31-19
Rhode Island	State Program	1	LAO00268	12-30-18
South Carolina	State Program	4	84009 (001)	02-28-19
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-19
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-19
Virginia	NELAP	3	460152	06-14-19
Washington	State Program	10	C789	07-19-19
West Virginia DEP	State Program	3	219	02-28-19
Wisconsin	State Program	5	998020430	08-31-19
Wyoming (UST)	A2LA	8	453.07	12-31-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

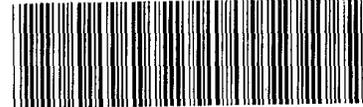
TestAmerica Nashville





THE LEADER IN ENVIRONMENTAL TESTING  
Nashville, TN

COOLER RECEIPT FORM



490-162713 Chain of Custody

Cooler Received/Opened On 11/7/2018 @ 9:55

Time Samples Removed From Cooler \_\_\_\_\_ Time Samples Placed In Storage \_\_\_\_\_ (2 Hour Window)

1. Tracking # 1435 (last 4 digits/FedEx) Courier: FedEx  
IR Gun ID 17960358 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 2.9 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) [Signature]

7. Were custody seals on containers: YES NO and intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA



14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (initial) ASH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) ASH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) ASH

I certify that I attached a label with the unique LIMS number to each container (initial) ASH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO..# \_\_\_\_\_



**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**

COMMENTS

Action 8396

**COMMENTS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 8396
	Action Type: [C-141] Release Corrective Action (C-141)

**COMMENTS**

Created By	Comment	Comment Date
jharimon	Depth to water was not adequately defined in the report, however as the data shows your contaminant levels are below the most stringent closure criteria this closure is approved.	6/8/2022

**District I**  
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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
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**Santa Fe, NM 87505**

CONDITIONS  
 Action 8396

**CONDITIONS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 8396
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
jharimon	None	6/8/2022