Larson & Associates, Inc.
Environmental Consultants

December 14, 2009

Mr. Larry Hill, Environmental Engineer
New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

RE: Below-Grade Tank Closure Final Reports, XTO Energy, Inc., Eunice Monument South Unit, Central Battery Tank 2, Lea County, New Mexico

Dear Mr. Hill:

Please find enclosed the below-grade tank closure report for the above referenced site.

If you have any questions or concerns, please call me at 432.687.0901 to discuss.

Sincerely,

LARSON & ASSOCIATES, INC.

William D. Green, PG No. 136
Texas Licensed Professional Geologist
wgreen@laenvironmental.com

Enclosure Tank Closure Final Report

CC Mr. Patrick Lyons, NM State Land Office, Santa Fe
Mr. Guy Haykus, XTO Energy, Midland
Mr. Jerry Parker, XTO Energy, SE New Mexico

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HOBBSOCD

Below-Grade Tank
Closure Final Report

XTO Energy, Inc.
Eunice Monument South Unit – Central Battery Tank 2
Unit E (SW/4, NW/4), Section 4, T21S, R36E
Lea County, NM

Project No. 8-0137

Prepared by:

Larson and Associates, Inc.
507 North Marienfeld Street
Suite 200
Midland, Texas 79701
432.687.0901

December 14, 2009

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1.0 Executive Summary

The following report documents the closure of a below-grade tank (Tank 2) associated with the XTO Energy (XTO) Eunice Monument South Unit – Central Battery (Site) located in Lea County, New Mexico. The legal description of the Site is Unit E (SW/4, NW/4), Section 4, Township 21 South, Range 36 East (Figure 1). The geodetic location is N32° 30' 27.98", W103° 16' 33.28".

Closure activities consisted of notifications to the New Mexico Oil Conservation Division (OCD) and the landowner of record (New Mexico State Land Office), removal of Tank 2 and soil, the collection of soil samples, OCD issuance of a remediation case number and the subsequent investigation, backfilling and closure of the former below-grade tank. Activities were performed in conformance with New Mexico Administrative Code Rule 19.15.17 as amended June 16, 2008 and June 18, 2009.

2.0 Operator Information

Primary Contact:	Mr. Rick Wilson
Address:	XTO Energy Inc., Permian Division – SE New Mexico
	PO Box 700
	Eunice, New Mexico 88231
Office:	575.394.2089 X2201
Secondary Contact:	Guy Haykus
Address:	XTO Energy Inc.
	Midland Office
	200 N. Loraine Street, Suite 800
	Midland, Texas 79701
Office:	432.682.8873

3.0 Closure Actions

3.1 Location and Siting Description

The Site has a geodetic location of N32° 30' 27.98", W103° 16' 33.28", and is located in rural Lea County, about 1 mile west-northwest of Oil Center, New Mexico. The approximately 6 acre Site consisted of several above-ground storage tanks, two below-grade fiberglass tanks, and ancillary production equipment. The tank of interest, Tank 2, is the southern below-grade fiberglass tank with a nominal capacity of 90 barrels. The Facility is covered with crushed caliche rock and is relatively flat (Figures 2 and 3).

The Facility's siting criteria presented the following findings:

- Groundwater is more than 100 feet below the bottom of the below-grade tank, based on records from the New Mexico State Engineer (NMSE).
- No continuously flowing watercourse is within 300 horizontal feet of the Facility.
- No surface water features, including lakes, rivers, ponds, arroyos, lakebed, sinkhole, or playa lake, are located within 200 horizontal feet of Facility.
- No permanent residence, school, hospital, institution, or church is within 300 horizontal feet of Facility.

- No private, domestic fresh-water well or spring are within 500 horizontal feet of Facility.
- No fresh water wells or springs are located within 1000 horizontal feet of Facility.
- The Facility is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance.
- The Facility is not within 500 feet an area designated as wetlands.
- The Facility is not within an area overlying a subsurface mine.
- The Facility is not within an unstable area.
- The Facility is not within a 100-year flood plain.

3.2 Closure Plan and Approval

On December 12, 2008, Larson & Associates, Inc. (LAI), on behalf of XTO, submitted a below-grade tank closure plan to the OCD in Santa Fe and Hobbs, New Mexico, in accordance with an Agreed Scheduling Order (ASO-008) between XTO and OCD. The Closure Plan was approved and signed by the OCD representative Mr. Brad Jones on July 17, 2009. A copy of the signed C-144 closure plan is provided in Appendix A.

3.3 Landowner and OCD Notifications

In accordance with the approved closure plan and prior to commencing work, on August 19, 2009, notification of closure was sent by XTO to the New Mexico State Land Office (the surface owner) and the OCD. Copies of the notification letters are provided in Appendix B.

3.4 Tank Closure Activities

On August 26, 2009, XTO used a HydroVac truck to excavate around the tank, and a backhoe to remove the tank. Approximately 85 barrels of tank bottoms and 10 cubic yards of excavated soil were disposed at Sundance Services, Inc. (OCD Permit R5516/NM-01-0003). Waste manifests are presented as Appendix C.

On the same day, August 26, 2009, LAI personnel collected a 5-part composite soil sample from the bottom (Tank-2 Bottom) of the excavation. Discolored soil was observed in the excavation beneath the discharge pipe on the north wall; a sample was collected (Tank-2 North Wall). A 5-part composite sample was also collected from the excavated soil pile for waste characterization (Tank-2 Soil Pile).

DHL Analytical, Inc. analyzed the August samples for benzene, toluene, ethylbenzene, xylenes (BTEX) by method 8021B, total petroleum hydrocarbons (TPH) by method 418.1 and chloride by method 300.1.

No benzene was detected in any samples, but BTEX was detected in the North Wall sample at 91.75 milligrams per kilogram (mg/kg, parts per million), above the OCD reporting limit of 50 mg/kg. TPH was detected at 27,900 mg/kg in the North Wall, above the OCD reporting limit of 100 mg/kg, and at 65.0 mg/kg in the bottom sample. Chlorides were also detected above the 250 mg/kg OCD reporting limit in the North Wall sample (334 mg/kg) only. Appendix D contains laboratory analytical reports for this project.

Additional excavation of the North Wall was conducted on October 15, 2009. Approximately 20 cubic yards of excavated soil was disposed at Sundance Services, Inc., and a confirmation sample was collected and submitted to Xenco Laboratories, Inc. in Odessa, Texas. Benzene, BTEX, and TPH were not detected in the sample, and the chlorides were reduced to 8.7 mg/kg, well below the OCD reporting limits.

3.5 Excavation Backfilling

An Initial and Final form C-141 was submitted to the OCD Hobbs office for excavation backfilling approval (Appendix E). Backfilling consisted of compacting six- to eight-inch lifts of clean soil purchased from the Mr. Jimmy Cooper, a nearby rancher and soil supplier, and compacting each lift with heavy equipment. The uppermost 18-inches consisted of topsoil also purchased from Mr. Jimmy Cooper. The topsoil was graded to level with the surrounding surface.

Since the former tank was located within an active oilfield tank battery, the site was not drilled and reseeded. See Appendix F for photographs of the entire closure process.

4.0 Conclusion and Recommendation

Based on the documented activities performed in conformance with the OCD-approved below-grade tank closure plan, LAI requests approval of closure for this Site.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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-144
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action: ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Modification to an existing permit
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: XTO ENERGY, INC. OGRID #: 5380
Address: PERMIAN DIVISION-SE NEW MEXICO, P.O. BOX 700, EUNICE, NEW MEXICO 88231
Facility or well name: EMSU-CENTRAL BATTERY/EMSU-WELL NO. 626 (Nearest Well)
API Number: 30-025-31465 (EMSU Well No. 626) OCD Permit Number:
U/L or Qtr/Qtr Unit E Section 4 Township 21S Range 36E County LEA
Center of Proposed Design: Latitude 32° 30' 27.93'' N Longitude 103° 16' 33.28" W NAD: ☐ 1927 ☒ 1983
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____ bbl Dimensions: L _____ x W _____ x D _____

3.
☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____

4.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: 90 bbl Type of fluid: OIL & PRODUCED WATER
Tank Construction material: FIBERGLASS
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☒ Other LEAK DETECTION & METAL BARRICADE
Liner type: Thickness _____ mil ☐ HDPE ☐ PVC ☐ Other _____

5.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6.

Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*

☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*

☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify_____

7.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

8.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.3.103 NMAC

9.

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. **Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.**

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to temporary, emergency, or cavitation pits and below-grade tanks)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to permanent pits)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No

11.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____

☐ Previously Approved Operating and Maintenance Plan API Number: _____ *(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

13.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☒ Below-grade Tank ☐ Closed-loop System ☐ Alternative

Proposed Closure Method: ☒ Waste Excavation and Removal
- ☐ Waste Removal (Closed-loop systems only)
- ☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☐ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No

18.

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC

☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.
Operator Application Certification:
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

20.
OCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment) ☒ CLOSURE CERTIFICATION

OCD Representative Signature: Jeffrey Harris **Approval Date:** 12/18/09

Title: Environmental Engineer **OCD Permit Number:** _____

21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC
Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:** _____

22.
Closure Method:
☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

23.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:
Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?
☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:
☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***
☒ Proof of Closure Notice (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure)
☐ Plot Plan (for on-site closures and temporary pits)
☒ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☒ Disposal Facility Name and Permit Number Disposal Facility Name: Sundance Services, Inc.. Permit Number: R5516/NM-01-0003
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☒ Site Reclamation (Photo Documentation)
On-site Closure Location: Latitude 32° 30' 27.93'' N Longitude 103° 16' 33.28" W NAD: ☐ 1927 ☒ 1983

25.
Operator Closure Certification:
I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): W. G. Hayhus Title: Production Superintendent

Signature: W. G. Hayhus Date: 12/16/09

e-mail address: William_Hayhus@XTOEnergy.com Telephone: 432-218-6373

Table 1
Soil Analytical Data Summary
EMSU - Central Battery Tank 2
XTO Energy, Inc.
Lea County, New Mexico
Project No.: 8-0137

Sample ID	Date	Benzene	Ethyl benzene	Toluene	Total Xylenes	Total BTEX	TRPH	Chlorides
Reporting Limit		0.2				50	100	250
RRAL:		10				50	5,000	250
Tank-2 Bottom	8/26/2009	<0.00274	<0.00456	<0.00456	<0.00456	<0.01642	65.0	5.58
Tank-2 North Wall	8/26/2009	<0.0295	19.2	6.15	66.4	**91.75**	**27,900**	**334**
	10/15/2009	<0.001	<0.001	<0.0021	<0.001	<0.001	<10.5	8.7
Tank-2 Soil Pile	8/26/2009	<0.00303	0.0940	<0.00506	0.0716		628	11.3

Notes

RRAL - Recommended Remediation Action Level

Total Petroleum Hydrocarbons analyzed via Method 418.1.

Chlorides analyzed via EPA Method 300.

All values reported in Milligrams per Kilogram - dry (mg/kg, parts per million).

Bold and blue indicates the value exceeds NMOCD requirements.

Table 1
Soil Analytical Data Summary
EMSU - Central Battery Tank 2
XTO Energy, Inc.
Lea County, New Mexico
Project No.: 8-0137

Sample ID	Date	Chlorides
RRAL:		250
Tank - 2 Fill	10/16/2009	9.04

Notes

RRAL - Recommended Remediation Action Level

Chlorides analyzed via EPA Method 300.

All values reported in Milligrams per Kilogram - dry (mg/kg, parts per million).

Bold and blue indicates the value exceeds NMOCD requirements.

JWW

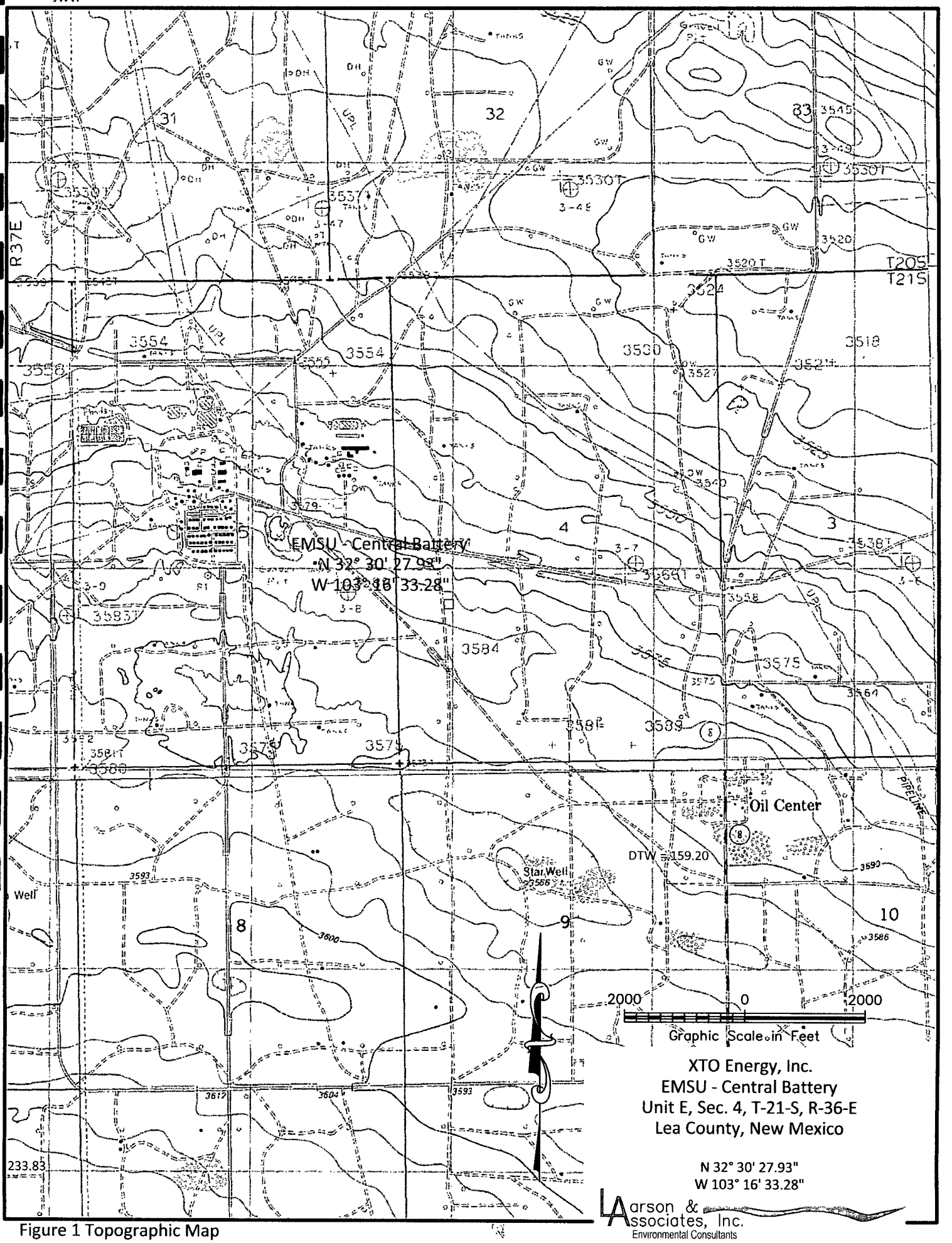
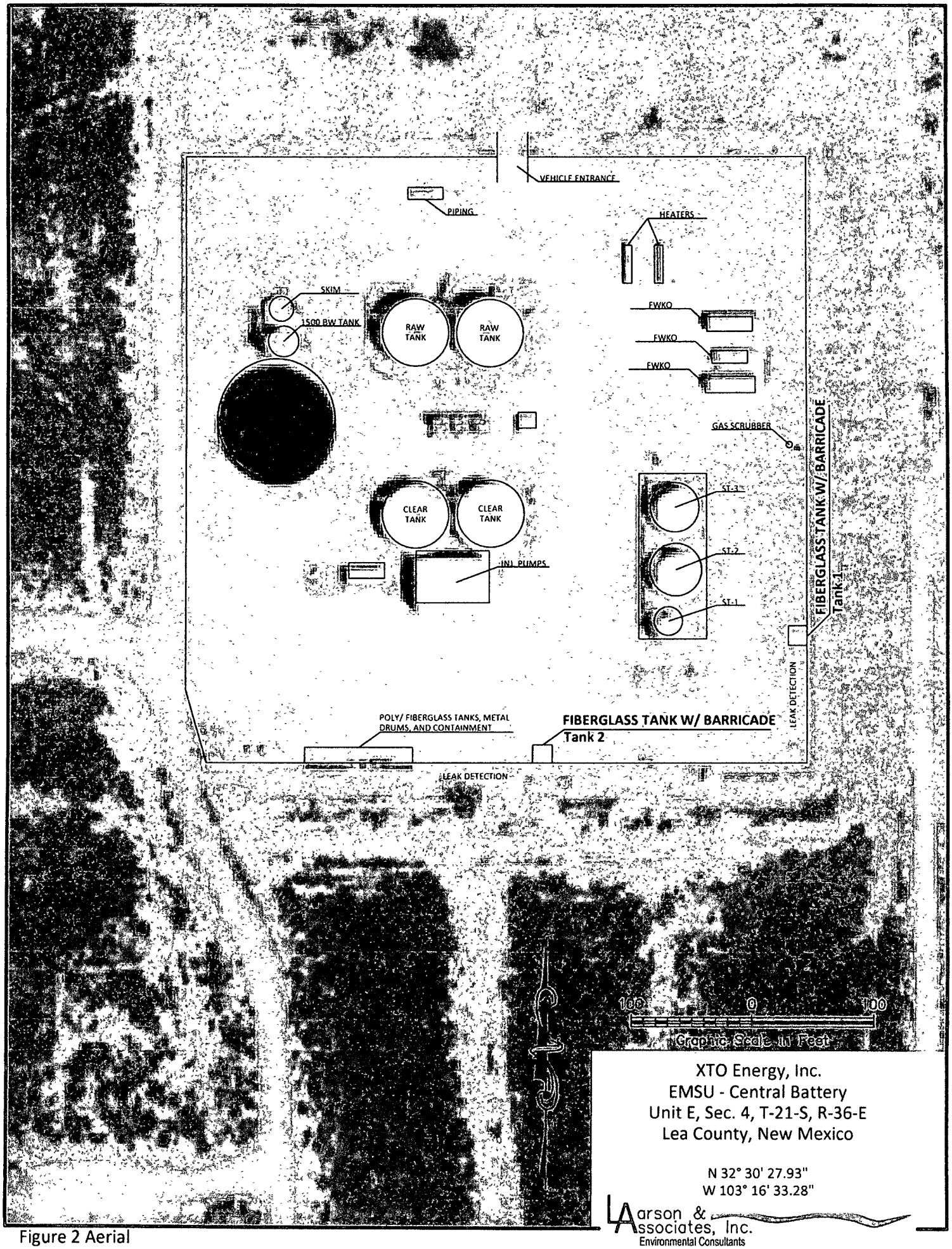


Figure 1 Topographic Map



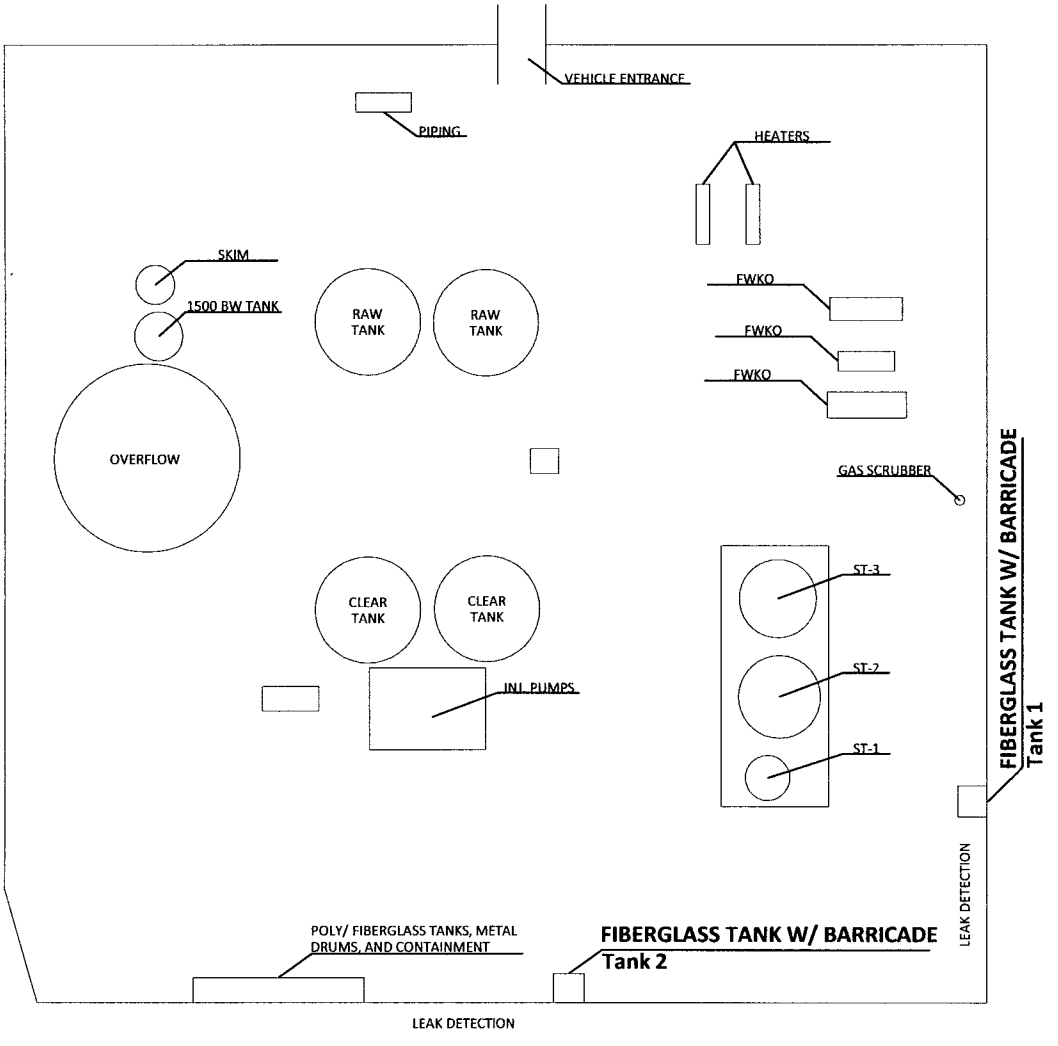
XTO Energy, Inc.
EMSU - Central Battery
Unit E, Sec. 4, T-21-S, R-36-E
Lea County, New Mexico

N 32° 30' 27.93"
W 103° 16' 33.28"

Larson & Associates, Inc.
Environmental Consultants

Figure 2 Aerial

JWW



100 0 100

Graphic Scale in Feet

XTO Energy, Inc.
EMSU - Central Battery
Unit E, Sec. 4, T-21-S, R-36-E
Lea County, New Mexico

N 32° 30' 27.93"
W 103° 16' 33.28"

Larson & Associates, Inc.
Environmental Consultants

Figure 3 - Site Drawing

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

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DEC 18 2009
HOBBSOCD

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

Form C-144
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:
- ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
- ☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit
- ☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

Operator: XTO ENERGY, INC. OGRID #: 5380

Address: PERMIAN DIVISION-SE NEW MEXICO, P.O. BOX 700, EUNICE, NEW MEXICO 88231

Facility or well name: EMSU-CENTRAL BATTERY/EMSU-WELL NO. 626 (Nearest Well)

API Number: 30-025-31465 (EMSU Well No. 626) OCD Permit Number:

U/L or Qtr/Qtr Unit E Section 4 Township 21S Range 36E County LEA

Center of Proposed Design: Latitude 32° 30' 27.93" N Longitude 103° 16' 33.28" W NAD: ☐ 1927 ☒ 1983

Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.

☐ **Pit:** Subsection F or G of 19.15.17.11 NMAC

Temporary: ☐ Drilling ☐ Workover

☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A

☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____

☐ String-Reinforced

Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____ bbl Dimensions: L_____ x W_____ x D_____

3.

☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC

Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)

☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other _____

☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____

Liner Seams: ☐ Welded ☐ Factory ☐ Other _____

4.

☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC

Volume: 90 bbl Type of fluid: OIL & PRODUCED WATER

Tank Construction material: FIBERGLASS

☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off

☐ Visible sidewalls and liner ☐ Visible sidewalls only ☒ Other LEAK DETECTION & METAL BARRICADE

Liner type: Thickness _____ mil ☐ HDPE ☐ PVC ☐ Other _____

5.

☐ **Alternative Method:**

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6.

Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*

☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*

☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify_____

7.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

8.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.3.103 NMAC

9.

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. **Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.**

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to temporary, emergency, or cavitation pits and below-grade tanks)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to permanent pits)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No

11.

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.

Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____

☐ Previously Approved Operating and Maintenance Plan API Number: _____ *(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

13.

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.

Proposed Closure: 19.15.17.13 NMAC

Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☒ Below-grade Tank ☐ Closed-loop System ☐ Alternative

Proposed Closure Method: ☒ Waste Excavation and Removal

- ☐ Waste Removal (Closed-loop systems only)
- ☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☐ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.

Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☑ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☑ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☑ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☑ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☑ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- ☑ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations.

☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

N/A (Method Not Proposed or Approved)

Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☒ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

18.

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

N/A (Method Not Proposed or Approved)

☑ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC

☑ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC

☑ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☑ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☑ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

☑ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☑ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☑ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.
Operator Application Certification:
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): W. G. Haykus Title: Production Superintendent
Signature: W. G. Haykus Date: 12/12/08
e-mail address: William_haykus@XTOENERGY.com Telephone: 432-620-6705

20.
OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)
OCD Representative Signature: [signature] **Approval Date:** 7/17/09
Title: Environmental Engineer **OCD Permit Number:**

21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC
Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.
☐ **Closure Completion Date:**

22.
Closure Method:
☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

23.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:
Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.
Disposal Facility Name: Disposal Facility Permit Number:
Disposal Facility Name. Disposal Facility Permit Number:
Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?
☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No
Required for impacted areas which will not be used for future service and operations:
☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***
☐ Proof of Closure Notice (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure)
☐ Plot Plan (for on-site closures and temporary pits)
☐ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☐ Disposal Facility Name and Permit Number
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☐ Site Reclamation (Photo Documentation)
On-site Closure Location: Latitude Longitude NAD: ☐ 1927 ☐ 1983

25.
Operator Closure Certification:
I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.
Name (Print): Title:
Signature: Date:
e-mail address: Telephone:

XTO ENERGY

August 19, 2009

VIA: Certified Mail (Return Receipt Requested)

Mr. Patrick Lyons, Commissioner
New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Re: Notice of Below-Grade Tank 2 Closure
XTO Energy, Inc.
Eunice Monument South Unit Central Tank Battery – Tank 2
Unit E (SW/4, NW/4), Section 4
Township 21 South, Range 36 East
Lea County, New Mexico

Dear Commissioner Lyons,

Pursuant to paragraph (1) of Subsection J of 19.15.17.13 NMAC, notice is hereby given to the New Mexico State Land Office (SLO), as surface owner of record, by XTO Energy, Inc. (XTO) of its intent to close a below-grade tank (Tank #2) at the central tank battery (Facility) located in the Eunice Monument South Unit beginning August 26, 2009. The Facility is located in Unit E (SW/4, NW/4), Section 4, Township 21 South, Range 36 East in Lea County, New Mexico. The latitude and longitude is 32° 30' 27.93" north and 103° 16' 33.28" west, respectively. The closure will be performed according to a plan meeting the requirements of Paragraphs (1) through (6) of Subsection E of 19.15.17.13 NMAC that was approved by the New Mexico Oil Conservation Division (OCD) on July 17, 2009. The closure plan may be viewed at the OCD District 1 office located in Hobbs, New Mexico or with the OCD Environmental Bureau in Santa Fe, New Mexico. Please contact myself at (432) 682-8873 or Mark Larson with Larson & Associates, Inc. at (432) 687-0901, if you have questions.

Sincerely,

XTO Energy, Inc.

Clif Green
Production Superintendent

Cc: Leon Anderson - SLO Hobbs District (w/Return Receipt)
Dudley McMinn - XTO
Mark Larson - Larson & Associates, Inc.

XTO ENERGY

August 19, 2009

VIA: Certified Mail (Return Receipt Requested)

Mr. Larry Hill
District Supervisor
New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Notice of Below-Grade Tank 2 Closure
XTO Energy, Inc.
Eunice Monument South Unit Central Tank Battery – Tank 2
Unit E (SW/4, NW/4), Section 4
Township 21 South, Range 36 East
Lea County, New Mexico

Dear Mr. Hill,
Pursuant to paragraph (2) of Subsection J of 19.15.17.13 NMAC, notice is hereby given to the New Mexico Oil Conservation Division (OCD) by XTO Energy, Inc. (XTO) of its intent to close a below-grade tank (Tank #2) at the central tank battery (Facility) located in the Eunice Monument South Unit (EMSU) beginning August 26, 2009. The Facility is located in Unit E (SW/4, NW/4), Section 4, Township 21 South, Range 36 East in Lea County, New Mexico. The latitude and longitude is 32° 30' 27.93" north and 103° 16' 33.28" west, respectively. The nearest well is the EMSU Well no. 626 with API #30-025-31465. The closure will be in accordance with a plan meeting the requirements of Paragraphs (1) through (6) of Subsection E of 19.15.17.11 NMAC that was approved by the OCD Environmental Bureau in Santa Fe, New Mexico, on July 17, 2009. Please contact myself at (432) 682-8873 or Mark Larson with Larson & Associates, Inc. at (432) 687-0901, if you have questions.
Sincerely,
XTO Energy, Inc.

Clif Green
Production Superintendent

Cc: Dudley McMinn – XTO Energy
Mark Larson - Larson & Associates, Inc.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Patrick Lyons, Commissioner
New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, New Mexico 8750[illegible]

SANTA FE NM 8750[illegible] AUG 24 USPS

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) Susan Montoya C. Date of Delivery 8/24/0[illegible]

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

[illegible]
809 [illegible]

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandis
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service la) 7009 0820 0001 1970 5083

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-15[illegible]

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Larry Hill
District Supervisor
New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery 8-20-09

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandis
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7009 0820 0001 1970 5069

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-15[illegible]

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Leon Anderson
NMOCD – Hobbs Field Office
2702-D North Grimes Street
Hobbs, New Mexico 88240

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7009 0820 0001 1970 5090

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

Sund ıce Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 120727

Lease Operator/Shipper/Company: XTO

Lease Name: EMSU Central Battery

Transporter Company: Bryans Time 7:45 AM/PM

Date: 8-19-09 Vehicle No. 21 ~~Driver No:~~ Gene Hudson

Charge To: XTO

TYPE OF MATERIAL

☐	Produced Water	☐	Drilling Fluids	☐	Completion Fluids
☒	Tank Bottoms	☐	Contaminated Soil	☐	C-117 No.:
☐	Other Materials	☐	BS&W Content:		

Description: T/B

☒ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL 50 BBLS. YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: [signature]

FACILITY REPRESENTATIVE: Ida Sa Cruz

Sund ice Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 120743

Lease Operator/Shipper/Company: XTO

Lease Name: EMSU Central Battery

Transporter Company: Brigade Time 10:18 AM/PM

Date: 8-19-09 Vehicle No. 21 Driver Gene H.

Charge To: XTO

TYPE OF MATERIAL

☐	Produced Water	☐	Drilling Fluids	☐	Completion Fluids
☒	Tank Bottoms	☐	Contaminated Soil	☐	C-117 No.:
☐	Other Materials	☐	BS&W Content:		

Description: TB

☒ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL 35 BBLS. YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:

FACILITY REPRESENTATIVE: Ida StaCruz

Sund ıce Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 120746

Lease Operator/Shipper/Company: XTO

Lease Name: ENISU Central Tank Battery

Transporter Company: Hydro-Tech Time 11:08 (AM)/PM

Date: 8-19-09 Vehicle No. 104 Driver Name Gene Hudson

Charge To: XTO

TYPE OF MATERIAL

☐	Produced Water	☐	Drilling Fluids	☐	Completion Fluids
☐	Tank Bottoms	☒	Contaminated Soil	☐	C-117 No.:
☐	Other Materials	☐	BS&W Content:		

Description: O/D

☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL BBLS. 10 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC 'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [signature]

FACILITY REPRESENTATIVE: Ida Sta Cruz

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231
(575) 394-2511

TICKET NO. 126256

LEASE OPERATOR/SHIPPER/COMPANY: XTO

LEASE NAME: Smith Central Battery

TRANSPORTER COMPANY: A.W. Backhoe | TIME 12:59 AM/PM

DATE: 11/4/09 VEHICLE NO.: T-4 | GENERATOR COMPANY MAN'S NAME: Hudson

CHARGE TO: XTO | RIG NAME AND NUMBER

TYPE OF MATERIAL

[ ] Production Water
[ ] Tank Bottoms
[ ] Solids
[ ] Drilling Fluids
[X] Contaminated Soil
[ ] BS&W Content: _____
[ ] Rinsate
[ ] Jet Out
[ ] Call Out

Description: C/D

RRC or API #

VOLUME OF MATERIAL [ ] BBLS. _____ : [X] YARD 30 : [ ] _____

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: D. Sta. Cruz
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter
Revised 09/09 Superior Printing Service, Inc.

DHL ANALYTICAL

September 03, 2009

Michelle Green
Larson & Associates
507 N. Marienfeld #200
Midland, TX 79701

TEL: (432) 687-0901
FAX: (432) 687-0456

Order No: 0908283

RE: XTO EMSU - Central Battery Tank 2

Dear Michelle Green:

DHL Analytical received 3 sample(s) on 8/27/2009 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
Lab Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-09-TX

ACCREDITED IN ACCORDANCE WITH nelac

Table of Contents

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to: M. Green

DATE: 8-26-09 PAGE 1 OF 1
PO #:
LAB WORK ORDER #: 0908283
PROJECT LOCATION OR NAME: XTO - EMSU - Central Battery Tank 2
LAI PROJECT #: 8-0137 COLLECTOR: D. Mcbinnie

TRRP report? ☐ Yes ☐ No

TIME ZONE: Time zone/State: MST

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	BTEX ☑ MTBE ☐	TRPH 418.1 ☑ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☑ ANIONS ☐ ALKALINITY ☐				FIELD NOTES
Tank-2 Bottom	01	8-26	0750	S	2				✓		✓	✓															✓				
Tank-2 N. Wall	02	8-26	0755	S	2				✓		✓	✓															✓				
Tank-2 Soil Pile	03	8-26	0800	S	2				✓		✓	✓															✓				
TOTAL																															

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	8-26-09 / 1440	LSO
LSO	8/27/09 0830	AKuhanck

TURN AROUND TIME
NORMAL ☑
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 2.4°C THERM #: 57
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☒ CARRIER BILL # LSO
☐ HAND DELIVERED

Lone Star Overnight

WWW.LSO.COM
Questions? Call 800-800-8984

Airbill No. 43386697

43386697

1. To: Print Name (Person) | Phone (Important): 512-388-9222
Company Name: DHL Analytical
Street Address (No P.O. Box or P.O. Box Zip Code Deliveries): 2300 Double Creek Drive
Suite / Floor:
City: Round Rock | State: TX | Zip: 78664

2. From: Print Name (Person): MICHELLE GREEN | Phone (Important): 432-687-0901
Company Name: LARSON & ASSOCIATES
Street Address: 507 NORTH MARIENFELD
Suite / Floor: 200
City: MIDLAND | State: TX | Zip: 79701

3. Service:
- [x] By 10:30am Delivery (Noon to select zip codes.)
- [ ] By 8:30am Delivery (Most Cities) (Extra Charge, No Signature Obtained)
- [ ] Saturday Delivery - By 12 Noon (Extra Charge)
- [ ] Other
- [ ] Deliver Without Delivery Signature (See Limits of Liability below)

Release Signature

L____ x W____ x H____

4. Package: Weight: 20 lbs
Your Company's Billing Reference Information:
Ship Date: (mm/dd/yy)

5. Payment:

FOR COURIER USE ONLY
Courier Number:
Pick-up Location:
Date:
Time:
Security Code:

LIMIT OF LIABILITY: We are not responsible for claims in excess of $100 for any reason unless you: 1) declare a greater value (not to exceed $25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES AND RESIDENTIAL DELIVERIES. DELIVERY COMMITMENTS MAY VARY. ADDITIONAL FEES MAY APPLY.

CUSTODY SEAL
DATE: 8-26-09
SIGNATURE:

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

DHL Analytical

Sample Receipt Checklist

Client Name **Larson & Associates** Date Received **8/27/2009**

Work Order Number **0908283** Received by **AK**

Checklist completed by _____ 8/27/09 (Signature / Date) Reviewed by _____ 8/27/09 (Initials / Date)

Carrier name LoneStar

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	2.4 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Adjusted? _____ Checked by _____

Any No response must be detailed in the comments section below

Client contacted _____ Date contacted _____ Person contacted _____

Contacted by _____ Regarding. _____

Comments _____

Corrective Action _____

Page 1 of 1

DHL Analytical

Date: 09/03/09

CLIENT:	Larson & Associates	**CASE NARRATIVE**
Project:	XTO EMSU - Central Battery Tank 2	
Lab Order:	0908283	

Sample was analyzed using the methods outlined in the following references:

Method SW8021B - Volatile Organics by GC
Method E418.1 - TRPH Analysis
Method E300 - Anions Analysis
Method D2216 - Percent Moisture

LOG IN

Samples were received and log-in performed on 8/27/09. A total of 3 samples were received. The time of collection was Mountain Standard Time. The samples arrived in good condition and were properly packaged.

VOLATILE ORGANICS ANALYSIS

For Volatile Organics by GC analysis sample Tank-2 N. Wall was diluted prior to analysis due to the nature of the sample (concentration of hydrocarbons).

For Volatile Organics analysis performed on 9/1/09 the surrogate recovery for sample Tank-2 Soil Pile was below control limits. This is flagged accordingly. This was due to matrix effect and confirmed by re-analysis. No further corrective actions were taken.

DHL Analytical

Date: 09/03/09

CLIENT: Larson & Associates
Project: XTO EMSU - Central Battery Tank 2
Lab Order: 0908283

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recv'd
0908283-01	Tank-2 Bottom		08/26/09 07:50 AM	08/27/09
0908283-02	Tank-2 N. Wall		08/26/09 07:55 AM	08/27/09
0908283-03	Tank-2 Soil Pile		08/26/09 08:00 AM	08/27/09

CLIENT: Larson & Associates
Project: XTO EMSU - Central Battery Tank 2
Lab Order: 0908283

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
0908283-01A	Tank-2 Bottom	08/26/09 07 50 AM	Soil	SW5030B	Purge and Trap Soils GC	09/01/09 08 37 AM	36929
0908283-01B	Tank-2 Bottom	08/26/09 07 50 AM	Soil	SW3550B	Soil Prep Sonication TRPH	09/02/09 09 30 AM	36964
	Tank-2 Bottom	08/26/09 07 50 AM	Soil	E300	Anion Prep	08/28/09 09 39 AM	36884
	Tank-2 Bottom	08/26/09 07 50 AM	Soil	D2216	Moisture Preparation	09/02/09 10 30 AM	36961
0908283-02A	Tank-2 N Wall	08/26/09 07 55 AM	Soil	SW5030B	Purge and Trap Soils GC	09/01/09 08 37 AM	36929
	Tank-2 N Wall	08/26/09 07 55 AM	Soil	SW5030B	Purge and Trap Soils GC	09/01/09 08 37 AM	36929
0908283-02B	Tank-2 N Wall	08/26/09 07 55 AM	Soil	SW3550B	Soil Prep Sonication TRPH	09/02/09 09 30 AM	36964
	Tank-2 N Wall	08/26/09 07 55 AM	Soil	E300	Anion Prep	08/28/09 09 39 AM	36884
	Tank-2 N Wall	08/26/09 07 55 AM	Soil	D2216	Moisture Preparation	09/02/09 10 30 AM	36961
0908283-03A	Tank-2 Soil Pile	08/26/09 08 00 AM	Soil	SW5030B	Purge and Trap Soils GC	09/01/09 08 37 AM	36929
0908283-03B	Tank-2 Soil Pile	08/26/09 08 00 AM	Soil	SW3550B	Soil Prep Sonication TRPH	09/02/09 09 30 AM	36964
	Tank-2 Soil Pile	08/26/09 08 00 AM	Soil	E300	Anion Prep	08/28/09 09 39 AM	36884
	Tank-2 Soil Pile	08/26/09 08 00 AM	Soil	D2216	Moisture Preparation	09/02/09 10 30 AM	36961

CLIENT: Larson & Associates
Project: XTO EMSU - Central Battery Tank 2
Lab Order: 0908283

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
0908283-01A	Tank-2 Bottom	Soil	SW8021B	Volatile Organics by GC	36929	1	09/01/09 02 54 PM	GC4_090901A
0908283-01B	Tank-2 Bottom	Soil	E300	Anions by IC method - Soil	36884	1	08/31/09 11 43 AM	IC2_090831A
	Tank-2 Bottom	Soil	D2216	Percent Moisture	36961	1	09/02/09 04 30 PM	PMOIST_090902A
	Tank-2 Bottom	Soil	E418 1	TRPH	36964	1	09/02/09 01 30 PM	IR207_090902A
0908283-02A	Tank-2 N Wall	Soil	SW8021B	Volatile Organics by GC	36929	50	09/01/09 03 38 PM	GC4_090901A
	Tank-2 N Wall	Soil	SW8021B	Volatile Organics by GC	36929	10	09/01/09 11 39 PM	GC4_090901A
0908283-02B	Tank-2 N Wall	Soil	E300	Anions by IC method - Soil	36884	10	08/31/09 12 57 PM	IC2_090831A
	Tank-2 N Wall	Soil	D2216	Percent Moisture	36961	1	09/02/09 04 30 PM	PMOIST_090902A
	Tank-2 N Wall	Soil	E418 1	TRPH	36964	100	09/02/09 01 30 PM	IR207_090902A
0908283-03A	Tank-2 Soil Pile	Soil	SW8021B	Volatile Organics by GC	36929	1	09/01/09 03 16 PM	GC4_090901A
0908283-03B	Tank-2 Soil Pile	Soil	E300	Anions by IC method - Soil	36884	1	08/31/09 12 13 PM	IC2_090831A
	Tank-2 Soil Pile	Soil	D2216	Percent Moisture	36961	1	09/02/09 04 30 PM	PMOIST_090902A
	Tank-2 Soil Pile	Soil	E418 1	TRPH	36964	5	09/02/09 01 30 PM	IR207_090902A

CLIENT: Larson & Associates
Project: XTO EMSU - Central Battery Tank 2
Project No: 8-0137
Lab Order: 0908283

Client Sample ID: Tank-2 Bottom
Lab ID: 0908283-01
Collection Date: 08/26/09 07:50 AM
Matrix: Soil

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
Volatile Organics by GC		**SW8021B**					**Analyst: JAW**
Benzene	ND	0 00274	0 00456		mg/Kg-dry	1	09/01/09 02 54 PM
Ethylbenzene	ND	0 00456	0 0137		mg/Kg-dry	1	09/01/09 02 54 PM
Toluene	ND	0 00456	0 0137		mg/Kg-dry	1	09/01/09 02 54 PM
Xylenes, Total	ND	0 00456	0 0137		mg/Kg-dry	1	09/01/09 02 54 PM
Surr Tetrachloroethene	87 1	0	79 - 135		%REC	1	09/01/09 02 54 PM
TRPH		**E418.1**					**Analyst: JBC**
Petroleum Hydrocarbons, TR	65 0	5 20	10 4	N	mg/Kg-dry	1	09/02/09 01 30 PM
Anions by IC method - Soil		**E300**					**Analyst: JBC**
Chloride	5 58	5 16	5 16		mg/Kg-dry	1	08/31/09 11 43 AM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	3 80	0	0		WT%	1	09/02/09 04 30 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	J	Analyte detected between MDL and RL
B	Analyte detected in the associated Method Blank	MDL	Method Detection Limit
C	Sample Result or QC discussed in the Case Narrative	N	Parameter not NELAC certified
DF	Dilution Factor	ND	Not Detected at the Method Detection Limit
E	TPH pattern not Gas or Diesel Range Pattern	RL	Reporting Limit
		S	Spike Recovery outside control limits

DHL Analytical

Date: 09/03/09

CLIENT: Larson & Associates
Project: XTO EMSU - Central Battery Tank 2
Project No: 8-0137
Lab Order: 0908283

Client Sample ID: Tank-2 N. Wall
Lab ID: 0908283-02
Collection Date: 08/26/09 07:55 AM
Matrix: Soil

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
Volatile Organics by GC		**SW8021B**					**Analyst: JAW**
Benzene	ND	0 0295	0 0492		mg/Kg-dry	10	09/01/09 11 39 PM
Ethylbenzene	19 2	0 246	0 739		mg/Kg-dry	50	09/01/09 03 38 PM
Toluene	6 15	0 0492	0 148		mg/Kg-dry	10	09/01/09 11 39 PM
Xylenes, Total	66 4	0 246	0 739		mg/Kg-dry	50	09/01/09 03 38 PM
Surr Tetrachloroethene	108	0	79 - 135		%REC	10	09/01/09 11 39 PM
Surr Tetrachloroethene	92 1	0	79 - 135		%REC	50	09/01/09 03 38 PM
TRPH		**E418.1**					**Analyst: JBC**
Petroleum Hydrocarbons, TR	27900	557	1110	N	mg/Kg-dry	100	09/02/09 01 30 PM
Anions by IC method - Soil		**E300**					**Analyst: JBC**
Chloride	334	54 8	54 8		mg/Kg-dry	10	08/31/09 12 57 PM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	10 9	0	0		WT%	1	09/02/09 04 30 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	J	Analyte detected between MDL and RL
B	Analyte detected in the associated Method Blank	MDL	Method Detection Limit
C	Sample Result or QC discussed in the Case Narrative	N	Parameter not NELAC certified
DF	Dilution Factor	ND	Not Detected at the Method Detection Limit
E	TPH pattern not Gas or Diesel Range Pattern	RL	Reporting Limit
		S	Spike Recovery outside control limits

CLIENT: Larson & Associates
Project: XTO EMSU - Central Battery Tank 2
Project No: 8-0137
Lab Order: 0908283

Client Sample ID: Tank-2 Soil Pile
Lab ID: 0908283-03
Collection Date: 08/26/09 08:00 AM
Matrix: Soil

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
Volatile Organics by GC		**SW8021B**					**Analyst: JAW**
Benzene	ND	0 00303	0 00506		mg/Kg-dry	1	09/01/09 03 16 PM
Ethylbenzene	0 0940	0 00506	0 0152		mg/Kg-dry	1	09/01/09 03 16 PM
Toluene	ND	0 00506	0 0152		mg/Kg-dry	1	09/01/09 03 16 PM
Xylenes, Total	0 0716	0 00506	0 0152		mg/Kg-dry	1	09/01/09 03 16 PM
Surr Tetrachloroethene	62 4	0	79 - 135	S	%REC	1	09/01/09 03 16 PM
TRPH		**E418.1**					**Analyst: JBC**
Petroleum Hydrocarbons, TR	628	27 2	54 4	N	mg/Kg-dry	5	09/02/09 01 30 PM
Anions by IC method - Soil		**E300**					**Analyst: JBC**
Chloride	11 3	5 41	5 41		mg/Kg-dry	1	08/31/09 12 13 PM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	8 47	0	0		WT%	1	09/02/09 04 30 PM

Qualifiers:				
	*	Value exceeds TCLP Maximum Concentration Level	J	Analyte detected between MDL and RL
	B	Analyte detected in the associated Method Blank	MDL	Method Detection Limit
	C	Sample Result or QC discussed in the Case Narrative	N	Parameter not NELAC certified
	DF	Dilution Factor	ND	Not Detected at the Method Detection Limit
	E	TPH pattern not Gas or Diesel Range Pattern	RL	Reporting Limit
			S	Spike Recovery outside control limits

CLIENT: Larson & Associates
Work Order: 0908283
Project: XTO EMSU - Central Battery Tank 2

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_090901A

Sample ID:	LCS-36929	Batch ID:	36929	TestNo:	SW8021B	Units:	mg/Kg
SampType:	LCS	Run ID:	GC4_090901A	Analysis Date:	09/01/09 10.21 AM	Prep Date:	09/01/09

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene	0 0968	0 00500	0 1000	0	96 8	65	113			
Toluene	0 102	0 0150	0 1000	0	102	73	115			
Ethylbenzene	0 104	0 0150	0 1000	0	104	74	118			
Xylenes, Total	0 309	0 0150	0 3000	0	103	73	119			
Surr Tetrachloroethene	0 214		0 2000		107	79	135			

Sample ID:	MB-36929	Batch ID:	36929	TestNo:	SW8021B	Units.	mg/Kg
SampType:	MBLK	Run ID:	GC4_090901A	Analysis Date:	09/01/09 11:39 AM	Prep Date:	09/01/09

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene	ND	0 00500								
Toluene	ND	0 0150								
Ethylbenzene	ND	0 0150								
Xylenes, Total	ND	0 0150								
Surr Tetrachloroethene	0 208		0 2000		104	79	135			

Sample ID:	0908302-15AMS	Batch ID:	36929	TestNo:	SW8021B	Units:	mg/Kg-dry
SampType:	MS	Run ID:	GC4_090901A	Analysis Date:	09/01/09 10 10 PM	Prep Date·	09/01/09

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene	0 104	0 00579	0 1158	0	90 2	65	113			
Toluene	0 105	0 0174	0 1158	0	90 4	73	115			
Ethylbenzene	0 105	0 0174	0 1158	0	90 9	74	118			
Xylenes, Total	0 319	0 0174	0 3473	0	91 7	73	119			
Surr Tetrachloroethene	0 215		0 2316		92 8	79	135			

Sample ID:	0908302-15AMSD	Batch ID:	36929	TestNo:	SW8021B	Units:	mg/Kg-dry
SampType:	MSD	Run ID:	GC4_090901A	Analysis Date:	09/01/09 10:31 PM	Prep Date:	09/01/09

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene	0 110	0 00579	0 1158	0	94 7	65	113	4 87	30	
Toluene	0 110	0 0174	0 1158	0	94 7	73	115	4 65	30	
Ethylbenzene	0 110	0 0174	0 1158	0	94 9	74	118	4 31	30	
Xylenes, Total	0 333	0 0174	0 3473	0	95 8	73	119	4 37	30	
Surr Tetrachloroethene	0 218		0 2316		94 0	79	135	0	0	

Qualifiers.				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 0908283
Project: XTO EMSU - Central Battery Tank 2

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_090901A

Sample ID:	ICV-090901	Batch ID:	R45275		TestNo:		SW8021B		Units:		mg/Kg
SampType:	ICV	Run ID:	GC4_090901A		Analysis Date:		09/01/09 09:58 AM		Prep Date.		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene		0 196	0 00500	0 2000	0	97 8	85	115			
Toluene		0 205	0 0150	0 2000	0	103	85	115			
Ethylbenzene		0 208	0 0150	0 2000	0	104	85	115			
Xylenes, Total		0 619	0 0150	0 6000	0	103	85	115			
Surr Tetrachloroethene		0 227		0 2000		114	79	135			

Sample ID:	CCV1-090901	Batch ID:	R45275		TestNo:		SW8021B		Units:		mg/Kg
SampType:	CCV	Run ID:	GC4_090901A		Analysis Date:		09/01/09 04:22 PM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene		0 0996	0 00500	0 1000	0	99 7	85	115			
Toluene		0 0986	0 0150	0 1000	0	98 6	85	115			
Ethylbenzene		0 101	0 0150	0 1000	0	101	85	115			
Xylenes, Total		0 304	0 0150	0 3000	0	101	85	115			
Surr Tetrachloroethene		0 173		0 2000		86 3	79	135			

Sample ID:	CCV2-090901	Batch ID:	R45275		TestNo:		SW8021B		Units:		mg/Kg
SampType:	CCV	Run ID:	GC4_090901A		Analysis Date:		09/01/09 09:04 PM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene		0 0974	0 00500	0 1000	0	97 4	85	115			
Toluene		0 0998	0 0150	0 1000	0	99 8	85	115			
Ethylbenzene		0 101	0 0150	0 1000	0	101	85	115			
Xylenes, Total		0 303	0 0150	0 3000	0	101	85	115			
Surr Tetrachloroethene		0 168		0 2000		84 0	79	135			

Sample ID	CCV3-090901	Batch ID:	R45275		TestNo:		SW8021B		Units		mg/Kg
SampType:	CCV	Run ID:	GC4_090901A		Analysis Date:		09/02/09 12:44 AM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene		0 101	0 00500	0 1000	0	101	85	115			
Toluene		0 0989	0 0150	0 1000	0	98 9	85	115			
Ethylbenzene		0 0998	0 0150	0 1000	0	99 8	85	115			
Xylenes, Total		0 298	0 0150	0 3000	0	99 4	85	115			
Surr Tetrachloroethene		0 169		0 2000		84 7	79	135			

Qualifiers.				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 0908283
Project: XTO EMSU - Central Battery Tank 2

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090831A

Sample ID:	LCS-36884	Batch ID	36884		TestNo:		E300		Units:		mg/Kg
SampType	LCS	Run ID:	IC2_090831A		Analysis Date:		08/31/09 09:46 AM		Prep Date:		08/28/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		52 3	5 00	50 00	0	105	80	120			

Sample ID:	LCSD-36884	Batch ID:	36884		TestNo:		E300		Units:		mg/Kg
SampType:	LCSD	Run ID:	IC2_090831A		Analysis Date:		08/31/09 10:01 AM		Prep Date		08/28/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		52 0	5 00	50 00	0	104	80	120	0 481	20	

Sample ID:	MB-36884	Batch ID:	36884		TestNo:		E300		Units.		mg/Kg
SampType:	MBLK	Run ID:	IC2_090831A		Analysis Date:		08/31/09 10 15 AM		Prep Date:		08/28/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		ND	5 00								

Sample ID:	0908282-01B MS	Batch ID.	36884		TestNo:		E300		Units:		mg/Kg-dry
SampType	MS	Run ID:	IC2_090831A		Analysis Date:		08/31/09 12:27 PM		Prep Date:		08/28/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		68 8	5 60	56 04	11 59	102	80	120			

Sample ID:	0908282-01B MSD	Batch ID:	36884		TestNo:		E300		Units:		mg/Kg-dry
SampType:	MSD	Run ID	IC2_090831A		Analysis Date:		08/31/09 12:42 PM		Prep Date:		08/28/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		69 5	5 60	56 04	11 59	103	80	120	1 03	20	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 0908283
Project: XTO EMSU - Central Battery Tank 2

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090831A

Sample ID:	ICV-090831	Batch ID:	R45225		TestNo:		E300			Units:	mg/Kg
SampType:	ICV	Run ID:	IC2_090831A		Analysis Date:		08/31/09 09:23 AM			Prep Date:	08/31/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		26 9	5 00	25 00	0	108	90	110			

Sample ID:	CCV1-090831	Batch ID:	R45225		TestNo:		E300			Units:	mg/Kg
SampType:	CCV	Run ID:	IC2_090831A		Analysis Date:		08/31/09 01:11 PM			Prep Date:	08/31/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		10 4	5 00	10 00	0	104	90	110			

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 0908283
Project: XTO EMSU - Central Battery Tank 2

ANALYTICAL QC SUMMARY REPORT

RunID: IR207_090902A

Sample ID:	LCS-36964	Batch ID:	36964		TestNo:		E418.1			Units:	mg/Kg
SampType	LCS	Run ID:	IR207_090902A		Analysis Date:		09/02/09 01:30 PM			Prep Date:	09/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Petroleum Hydrocarbons, TR		92 5	10 0	100 0	0	92 5	80	120			N
Sample ID:	MB-36964	Batch ID:	36964		TestNo:		E418.1			Units:	mg/Kg
SampType:	MBLK	Run ID:	IR207_090902A		Analysis Date:		09/02/09 01.30 PM			Prep Date:	09/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Petroleum Hydrocarbons, TR		ND	10 0								N
Sample ID:	0908282-01B MS	Batch ID:	36964		TestNo:		E418.1			Units:	mg/Kg-dry
SampType:	MS	Run ID:	IR207_090902A		Analysis Date:		09/02/09 01:30 PM			Prep Date:	09/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Petroleum Hydrocarbons, TR		92 2	11 2	111 7	0	82 5	80	120			N
Sample ID:	0908282-01B MSD	Batch ID:	36964		TestNo:		E418.1			Units:	mg/Kg-dry
SampType:	MSD	Run ID	IR207_090902A		Analysis Date:		09/02/09 01:30 PM			Prep Date:	09/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Petroleum Hydrocarbons, TR		98 4	11 2	112 4	0	87 5	80	120	6 48	20	N

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 0908283
Project: XTO EMSU - Central Battery Tank 2

ANALYTICAL QC SUMMARY REPORT

RunID: IR207_090902A

Sample ID:	ICV-090902	Batch ID:	418_S-09/02/09		TestNo:		E418.1		Units:		mg/Kg
SampType:	ICV	Run ID:	IR207_090902A		Analysis Date:		09/02/09 01:30 PM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Petroleum Hydrocarbons, TR		275	10 0	250 0	0	110	90	110			N

Sample ID:	CCV1-090902	Batch ID:	418_S-09/02/09		TestNo:		E418.1		Units:		mg/Kg
SampType:	CCV	Run ID:	IR207_090902A		Analysis Date:		09/02/09 01:30 PM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Petroleum Hydrocarbons, TR		272	10 0	250 0	0	109	85	115			N

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 0908283
Project: XTO EMSU - Central Battery Tank 2

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_090902A

Sample ID:	0908302-16B-DUP	**Batch ID:**	36961	**TestNo:**	D2216			**Units:**		WT%
SampType:	DUP	**Run ID:**	PMOIST_090902A	**Analysis Date:**	09/02/09 04:30 PM			**Prep Date:**		09/02/09

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Percent Moisture	34.2	0	0	33.58				1.89	30	

Qualifiers.				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

Analytical Report 348796

for

Larson & Associates

Project Manager: Michelle Green

XTO-EMSU-Central Tank 2

8-0137

22-OCT-09

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)
Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),
South Carolina(96031001), Louisiana(04154), Georgia(917)

22-OCT-09

Project Manager: **Michelle Green**
Larson & Associates
P.O. Box 50685
Midland, TX 79710

Reference: XENCO Report No: **348796**
XTO-EMSU-Central Tank 2
Project Address:

Michelle Green:

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 XENCO Report Number 348796. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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 XENCO Laboratories. 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. 348796 will be filed for 60 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 XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 348796

Larson & Associates, Midland, TX

XTO-EMSU-Central Tank 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Central Tank 2	S	Oct-15-09 10:35		348796-001

CASE NARRATIVE

XENCO Laboratories

Client Name: Larson & Associates
Project Name: XTO-EMSU-Central Tank 2

Project ID: 8-0137
Work Order Number: 348796

Report Date: 22-OCT-09
Date Received: 10/16/2009

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-777626 BTEX-MTBE EPA 8021B
SW8021BM

Batch 777626, Benzene, Ethylbenzene, Toluene, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 348796-001.
The Laboratory Control Sample for Toluene, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Batch: LBA-777740 Percent Moisture
None

Batch: LBA-777745 Inorganic Anions by EPA 300
None

Batch: LBA-778126 TPH by EPA 418.1
None

Certificate of Analysis Summary 348796

Larson & Associates, Midland, TX

Project Name: XTO-EMSU-Central Tank 2

Project Id: 8-0137
Contact: Michelle Green
Project Location:

Date Received in Lab: Fri Oct-16-09 03:10 pm
Report Date: 22-OCT-09
Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	348796-001					
	Field Id:	Central Tank 2					
	Depth:						
	Matrix:	SOIL					
	Sampled:	Oct-15-09 10:35					
Anions by E300	***Extracted:***						
	Analyzed:	Oct-19-09 09:42					
	Units/RL:	mg/kg	RL				
Chloride		8.69	4.40				
BTEX by EPA 8021B	***Extracted:***	Oct-17-09 11:00					
	Analyzed:	Oct-17-09 18:12					
	Units/RL:	mg/kg	RL				
Benzene		ND	0.0010				
Toluene		ND	0.0021				
Ethylbenzene		ND	0.0010				
m,p-Xylenes		ND	0 0021				
o-Xylene		ND	0.0010				
Total Xylenes		ND	0 0010				
Total BTEX		ND	0 0010				
Percent Moisture	***Extracted:***						
	Analyzed:	Oct-19-09 09:00					
	Units/RL:	%	RL				
Percent Moisture		4 46	1 00				
TPH by EPA 418.1	***Extracted:***						
	Analyzed:	Oct-21-09 12:53					
	Units/RL:	mg/kg	RL				
TPH, Total Petroleum Hydrocarbons		ND	10 5				

Brent Barron, II
Odessa Laboratory Manager

XENCO Laboratories

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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.

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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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4143 Greenbriar Dr, Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: XTO-EMSU-Central Tank 2

Work Orders : 348796,

Project ID: 8-0137

Lab Batch #: 777626 **Sample:** 540830-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/17/09 12:31

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0 0311	0.0300	104	80-120	

Lab Batch #: 777626 **Sample:** 540830-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/17/09 12:53

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0311	0 0300	104	80-120	

Lab Batch #: 777626 **Sample:** 540830-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/17/09 13:35

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0 0267	0.0300	89	80-120	
4-Bromofluorobenzene	0 0308	0.0300	103	80-120	

Lab Batch #: 777626 **Sample:** 348796-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/17/09 18:12

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0310	0 0300	103	80-120	

Lab Batch #: 777626 **Sample:** 348710-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/17/09 20:19

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0 0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0314	0 0300	105	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: XTO-EMSU-Central Tank 2

Work Orders : 348796,

Project ID: 8-0137

Lab Batch #: 777626 **Sample:** 348710-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/17/09 20:40

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0 0317	0.0300	106	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Xenco Laboratories

Blank Spike Recovery

Project Name: XTO-EMSU-Central Tank 2

Work Order #: 348796 **Project ID:** 8-0137

Lab Batch #: 777745 **Sample:** 777745-1-BKS **Matrix:** Solid

Date Analyzed: 10/19/2009 **Date Prepared:** 10/19/2009 **Analyst:** LATCOR

Reporting Units: mg/kg **Batch #:** 1

Anions by E300 Analytes	Blank Result [A]	BLANK /BLANK SPIKE RECOVERY STUDY Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.98	100	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: XTO-EMSU-Central Tank 2

Work Order #: 348796 **Project ID:** 8-0137

Analyst: ASA **Date Prepared:** 10/17/2009 **Date Analyzed:** 10/17/2009

Lab Batch ID: 777626 **Sample:** 540830-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0 1000	0 0826	83	0.1	0.0785	79	5	70-130	35	
Toluene	ND	0 1000	0 0819	82	0.1	0.0777	78	5	70-130	35	
Ethylbenzene	ND	0 1000	0 0835	84	0.1	0.0791	79	5	71-129	35	
m,p-Xylenes	ND	0.2000	0.1852	93	0.2	0.1754	88	5	70-135	35	
o-Xylene	ND	0.1000	0.0890	89	0.1	0.0847	85	5	71-133	35	

Analyst: ASA **Date Prepared:** 10/21/2009 **Date Analyzed:** 10/21/2009

Lab Batch ID: 778126 **Sample:** 778126-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by EPA 418.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH, Total Petroleum Hydrocarbons	ND	2500	2430	97	2500	2320	93	5	65-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

XENCO Laboratories

Form 3 - MS Recoveries

Project Name: XTO-EMSU-Central Tank 2

ACCREDITED IN ACCORDANCE WITH nelac

Work Order #: 348796
Lab Batch #: 777745
Project ID: 8-0137
Date Analyzed: 10/19/2009
Date Prepared: 10/19/2009
Analyst: LATCOR
QC- Sample ID: 348726-001 S
Batch #: 1
Matrix: Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	102	212	293	90	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

XENCO Laboratories

Form 3 - MS / MSD Recoveries

Project Name: XTO-EMSU-Central Tank 2

Work Order # : 348796 **Project ID:** 8-0137

Lab Batch ID: 777626 **QC- Sample ID:** 348710-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/17/2009 **Date Prepared:** 10/17/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1166	0.0733	63	0.1166	0 0738	63	1	70-130	35	X
Toluene	ND	0.1166	0.0735	63	0.1166	0.0743	64	1	70-130	35	X
Ethylbenzene	ND	0.1166	0 0747	64	0.1166	0 0740	63	1	71-129	35	X
m,p-Xylenes	ND	0 2332	0 1649	71	0.2332	0.1632	70	1	70-135	35	
o-Xylene	ND	0.1166	0 0791	68	0.1166	0.0780	67	1	71-133	35	X

Lab Batch ID: 778126 **QC- Sample ID:** 348795-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/21/2009 **Date Prepared:** 10/21/2009 **Analyst:** ASA

Reporting Units: mg/kg

TPH by EPA 418.1 Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH, Total Petroleum Hydrocarbons	ND	2880	2950	102	2880	2940	102	0	65-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Laboratories

Sample Duplicate Recovery

Project Name: XTO-EMSU-Central Tank 2

Work Order #: 348796

Lab Batch #: 777745 **Project ID:** 8-0137
Date Analyzed: 10/19/2009 **Date Prepared:** 10/19/2009 **Analyst:** LATCOR
QC- Sample ID: 348726-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Anions by E300 Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	102	101	1	20	

Lab Batch #: 777740
Date Analyzed: 10/19/2009 **Date Prepared:** 10/19/2009 **Analyst:** LATCOR
QC- Sample ID: 348724-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	12.0	12 2	2	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

DHL ANALYTICAL
2300 Double Creek Drive • Round Rock, TX 78664
Phone (512) 388-8222 • FAX (512) 388-8229

348796

№ 41848

CHAIN-OF-CUSTODY

CLIENT: Larson + Associates Inc
ADDRESS:
PHONE: 432-687-0901 FAX
DATA REPORTED TO: M. Green
ADDITIONAL REPORT COPIES TO:

DATE: 10-15-09 PAGE 1 OF 1
PO #: DHL WORK ORDER #:
PROJECT LOCATION OR NAME: XTO - EMSU - Central Tank 2
CLIENT PROJECT #: 8-0137 COLLECTOR: Don McGinnis

Authorize 5% surcharge for TRRP report? ☐ Yes ☐ No

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

Field Sample I.D.	DHL Lab #	Date	Time	Matrix	Container Type	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: (BTEX) MTBE ☐	(TPH) 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
Central tank-2		10-15	1035	S	4oz	2				X		X	X															X	300
TOTAL																													

RELINQUISHED BY: (Signature) DATE/TIME 10-16-09/1200 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME 10-16-09/1510 RECEIVED BY: (Signature) Andrea Fam
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

☐ DHL DISPOSAL @ $5.00 each ☐ Return

TURN AROUND TIME
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☑
OTHER ☐ ____

LABORATORY USE ONLY:
RECEIVING TEMP: 2.6 THERM #: A7
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED
☐ CARRIER BILL # ____
☐ APC DELIVERY
☑ HAND DELIVERED

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Larson & Assoc.

Date/ Time: 10·16·09 15:10

Lab ID # : 348796

Initials: AL

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	2.6 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	(Not Present)	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 348799

for

Larson & Associates

Project Manager: Michelle Green

XTO- EMSU Central

8-0137

19-OCT-09

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)
Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),
South Carolina(96031001), Louisiana(04154), Georgia(917)

19-OCT-09

Project Manager: **Michelle Green**
Larson & Associates
P.O. Box 50685
Midland, TX 79710

Reference: XENCO Report No: **348799**
XTO- EMSU Central
Project Address:

Michelle Green:

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 XENCO Report Number 348799. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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 XENCO Laboratories. 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. 348799 will be filed for 60 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 XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 348799

Larson & Associates, Midland, TX

XTO- EMSU Central

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Central Tank 1	S	Oct-15-09 08:30		348799-001
Tank 2 Fill	S	Oct-16-09 08:20		348799-002

CASE NARRATIVE

XENCO Laboratories

Client Name: Larson & Associates
Project Name: XTO- EMSU Central

Project ID: 8-0137
Work Order Number: 348799

Report Date: 19-OCT-09
Date Received: 10/16/2009

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-777740 Percent Moisture
None

Batch: LBA-777745 Inorganic Anions by EPA 300
None

Certificate of Analysis Summary 348799

Larson & Associates, Midland, TX

Project Name: XTO- EMSU Central

Project Id: 8-0137
Contact: Michelle Green
Project Location:

Date Received in Lab: Fri Oct-16-09 03:10 pm
Report Date: 19-OCT-09
Project Manager: Brent Barron, II

Analysis Requested											
	Lab Id:	348799-001		348799-002							
	Field Id:	Central Tank 1		Tank 2 Fill							
	Depth:										
	Matrix:	SOIL		SOIL							
	Sampled:	Oct-15-09 08 30		Oct-16-09 08 20							
Anions by E300	***Extracted:***										
	Analyzed:	Oct-19-09 09 42		Oct-19-09 09 42							
	Units/RL:	mg/kg	RL	mg/kg	RL						
Chloride		ND	4 42	9 04	4 34						
Percent Moisture	***Extracted:***										
	Analyzed:	Oct-19-09 09 00		Oct-19-09 09 00							
	Units/RL:	%	RL	%	RL						
Percent Moisture		5 02	1 00	3 13	1 00						

Brent Barron, II
Odessa Laboratory Manager

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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.

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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

Blank Spike Recovery

Project Name: XTO- EMSU Central

Work Order #: 348799 **Project ID:** 8-0137

Lab Batch #: 777745 **Sample:** 777745-1-BKS **Matrix:** Solid

Date Analyzed: 10/19/2009 **Date Prepared:** 10/19/2009 **Analyst:** LATCOR

Reporting Units: mg/kg **Batch #:** 1

Anions by E300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
			BLANK /BLANK SPIKE RECOVERY STUDY			
Chloride	ND	10 0	9 98	100	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes

BRL - Below Reporting Limit

Form 3 - MS Recoveries

Project Name: XTO- EMSU Central

Work Order #: 348799
Lab Batch #: 777745
Project ID: 8-0137
Date Analyzed: 10/19/2009
Date Prepared: 10/19/2009
Analyst: LATCOR
QC- Sample ID: 348726-001 S
Batch #: 1
Matrix: Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	102	212	293	90	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

XENCO Laboratories

Sample Duplicate Recovery

ACCREDITED IN ACCORDANCE WITH nelac

Project Name: XTO- EMSU Central

Work Order #: 348799

Lab Batch #: 777745 **Project ID:** 8-0137

Date Analyzed: 10/19/2009 **Date Prepared:** 10/19/2009 **Analyst:** LATCOR

QC- Sample ID: 348726-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300 Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	102	101	1	20	

Lab Batch #: 777740

Date Analyzed: 10/19/2009 **Date Prepared:** 10/19/2009 **Analyst:** LATCOR

QC- Sample ID: 348724-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	12 0	12 2	2	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes

BRL - Below Reporting Limit

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 10-15-09 PAGE 1 OF 1
PO #: ______ LAB WORK ORDER #: ______
PROJECT LOCATION OR NAME: XTO - EMSU - Central
LAI PROJECT #: 8-0137 COLLECTOR: Dan McGinnis

TRRP report? ☐ Yes ☐ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE
Time zone/State

348799

PRESERVATION: HCl, HNO_3, H_2SO_4 ☐ NaOH ☐, ICE, UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐; TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐; GASOLINE MOD 8015 ☐; DIESEL - MOD 8015 ☐; VOC 8260 ☐; SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐; 8081 PESTICIDES ☐ 8151 HERBICIDES ☐; 8082 PCBS ☐; TCLP - METALS (RCRA) ☐ TCLP VOC ☐; TCLP - PEST ☐ HERB ☐ Semi-VOC ☐; TOTAL METALS (RCRA) ☐ OTHER LIST ☐; LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐; RCI ☐ TOX ☐ FLASHPOINT ☐; TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐; pH ☐ HEXAVALENT CHROMIUM ☐; EXPLOSIVES ☐ PECHLORATE ☐; CHLORIDE (circled); ANIONS ☐ ALKALINITY ☐

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 / NaOH	ICE	UNPRESERVED	CHLORIDE	FIELD NOTES
Central tank 1	-01	10-15	0830	S	2				X		X	300
Tank 2 fill	-02	10-16	0820	S	2				X		X	

TOTAL

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
[signature]	10-16-09/1200	[signature]
[signature]	10-16-09/1510	Andrea Leon

TURN AROUND TIME
NORMAL ☑
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY
RECEIVING TEMP. 4.6 THERM # A7
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☑ NOT USED
☐ CARRIER BILL # ______
☑ HAND DELIVERED

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Larson & Assoc.

Date/ Time: 10.16.09 15:10

Lab ID #: 348799

Initials: AL

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	4.6 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	(Not Present)	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

1RP-09-09-2286

RECEIVED
SEP 30 2009
HOBBSOCD

RECEIVED
DEC 18 2009
HOBBSOCD

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: XTO Energy Permian Division-SE New Mexico	Contact: Rick Wilson/Production Foreman
Address: P.O. Box 700, Eunice, New Mexico 88231	Telephone No.: (575) 394-2089
Facility Name: EMSU-Central Battery Tank 2	Facility Type: Tank Battery-Nearest Well is EMSU Well #626 (API #30-025-31465)

Surface Owner: State of New Mexico	Mineral Owner	Lease No.:

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
Unit E	4	21S	36E					Lea

Latitude: 32° 30' 27.93" N **Longitude:** 103° 16' 33.28" W

NATURE OF RELEASE

Type of Release: Crude Oil & Produced Water	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Below Grade Tank	Date & Hour of Occurrence: Unknown	Date and Hour of Discovery: 8/26/09/8:00 am MST
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.: Below Grade Tank removed per OCD approved closure plan. Oil & produced water was incidentally released to adjacent soil when discharge line was disconnected for below grade tank. A flange blind cover was installed to discharge line flange to prevent further leakage of fluid. Initial composite sample (5-spot) from soils directly beneath the tank and leak detection system showed evidence of release. Discreet sample from stained area indicates release of hydrocarbons & chlorides to adjacent soil.

Describe Area Affected and Cleanup Action Taken.: *Impact limited to exposed soil on excavation north wall and adjacent to discharge line piping. No cleanup action was taken at this time. XTO proposes to excavate the TPH (27,900 mg/Kg) and Chlorides (334 mg/Kg) at location Tank-2 North Wall to delineate the TPH and Chlorides by field methods and collect a composite sample for laboratory confirmation when field observations indicate that the extent of contamination has been obtained.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:

Printed Name: John Fergerson, Larson & Associates, Inc. (Consultant)

Title: Hydrogeologist

E-mail Address: john@laenvironmental.com

Date: 9/16/09 Phone: (432) 687-0901

OIL CONSERVATION DIVISION

Approved by ~~District Supervisor:~~ ENV ENGINEER: Geoffrey Leking

Approval Date: 09/30/09 Expiration Date: 11/30/09

Conditions of Approval: Attached ☐

* Attach Additional Sheets If Necessary

1RP-09-09-2286

RECEIVED
DEC 18 2009
HOBBSOCD

District I
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Form C-141
Revised October 10, 2003

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: XTO Energy Permian Division-SE New Mexico	Contact: Rick Wilson/Production Foreman
Address: P.O. Box 700, Eunice, New Mexico 88231	Telephone No.: (575) 394-2089
Facility Name: EMSU-Central Battery Tank 2	Facility Type: Tank Battery-Nearest Well is EMSU Well #626 (API #30-025-31465)

Surface Owner: State of New Mexico	Mineral Owner	Lease No.:

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
Unit E	4	21S	36E					Lea

Latitude: 32° 30' 27.93" N **Longitude:** 103° 16' 33.28" W

NATURE OF RELEASE

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Source of Release: Below Grade Tank	Date & Hour of Occurrence: Unknown	Date and Hour of Discovery: 8/26/09/8:00 am MST
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.: Below Grade Tank removed per OCD approved closure plan. Oil & produced water was incidentally released to adjacent soil when discharge line was disconnected for below grade tank. A flange blind cover was installed to discharge line flange to prevent further leakage of fluid. Initial composite sample (5-spot) from soils directly beneath the tank and leak detection system showed evidence of release. Discrete sample from stained area indicates release of hydrocarbons & chlorides to adjacent soil.

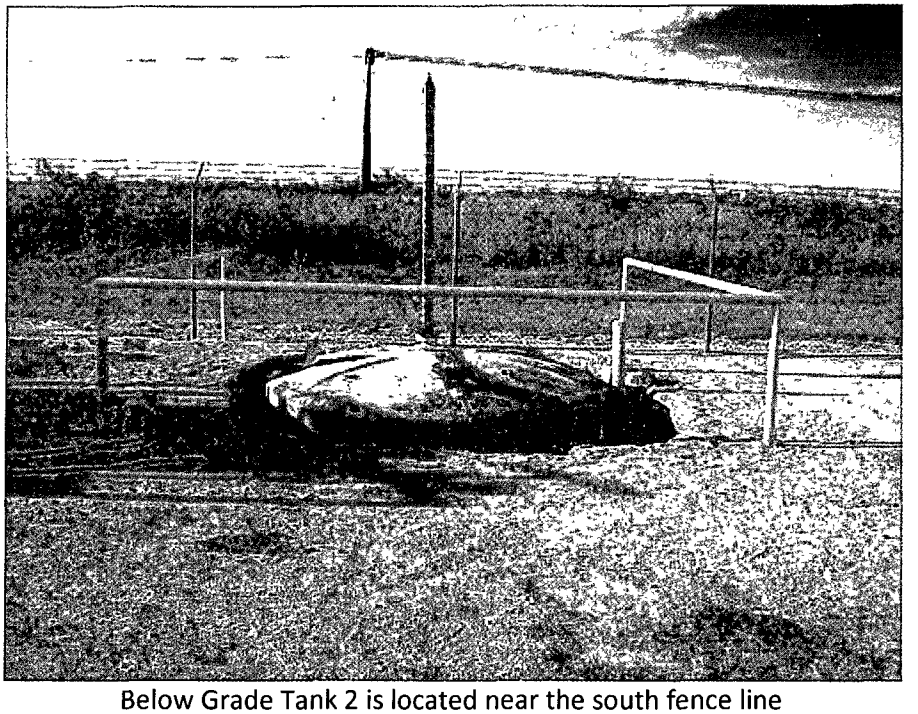
Describe Area Affected and Cleanup Action Taken.: *Impact limited to exposed soil on excavation north wall and adjacent to discharge line piping. The North wall area was excavated and sampled on October 15, 2009. The TPH (<10.5 ppm) and Chlorides (8.7 ppm) were below the recommended remediation action level.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

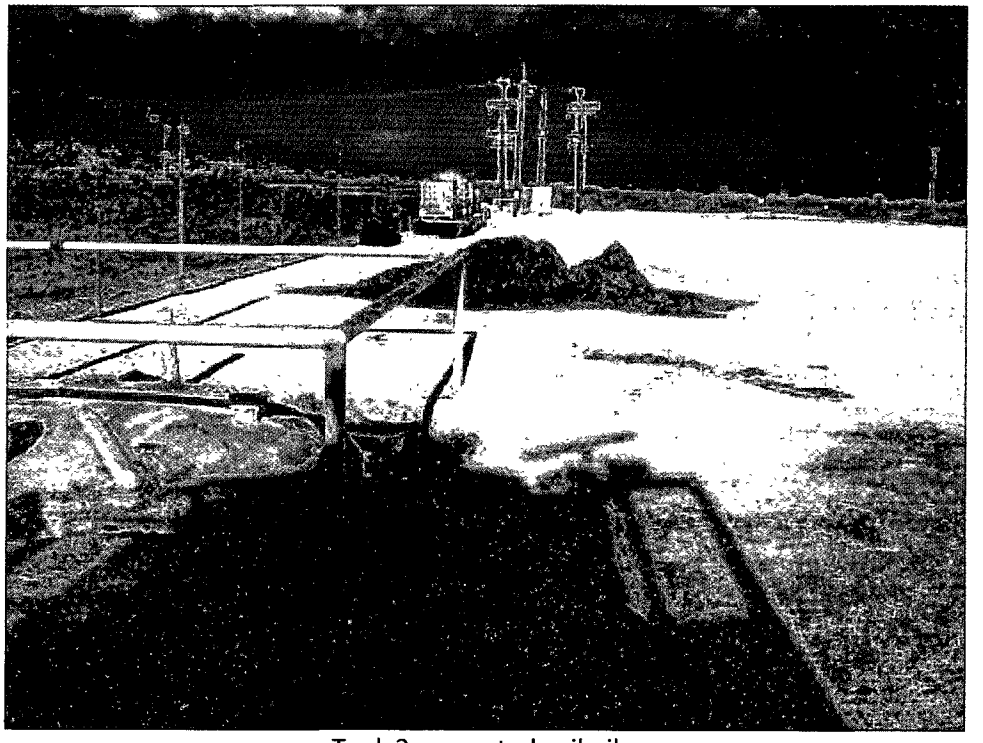
Signature: W. Haykus	OIL CONSERVATION DIVISION
Printed Name: Guy Haykus – XTO Energy	Approved by: ~~District Supervisor~~ ENV ENGINEER: Geoffrey Leking
Title: Production Superintendent	Approval Date: 11/02/09 Expiration Date: —
E-mail Address: William_haykus@xtoenergy.com	Conditions of Approval: Attached ☐
Date: 10/26/09 Phone: (432) 682.8873	

Attach Additional Sheets If Necessary

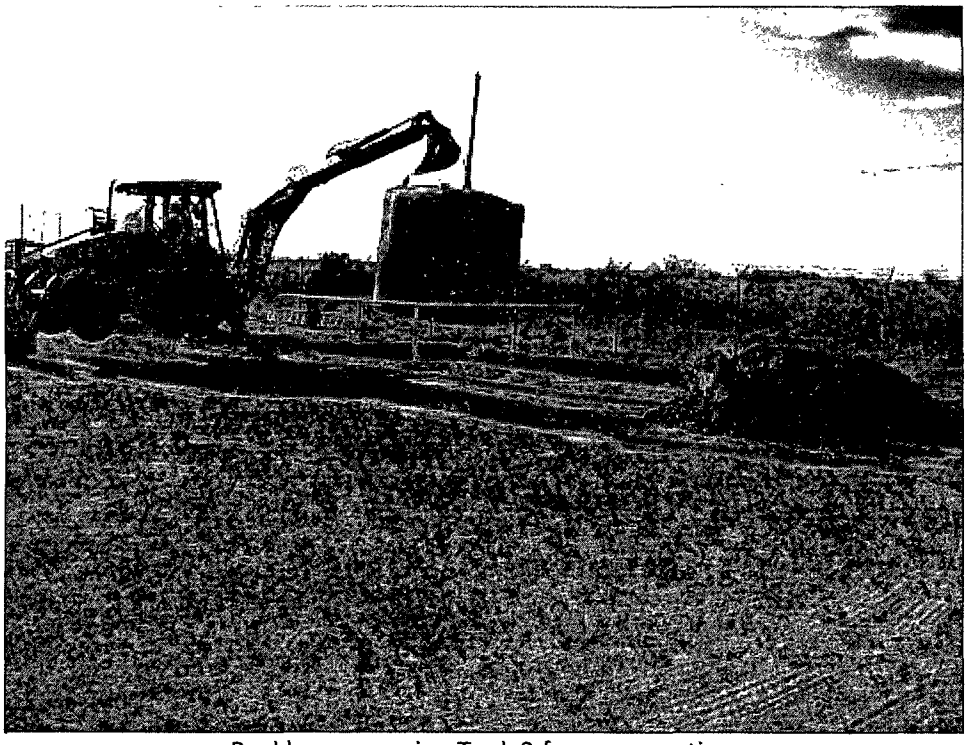
Central Battery Entrance Sign


Below Grade Tank 2 is located near the south fence line

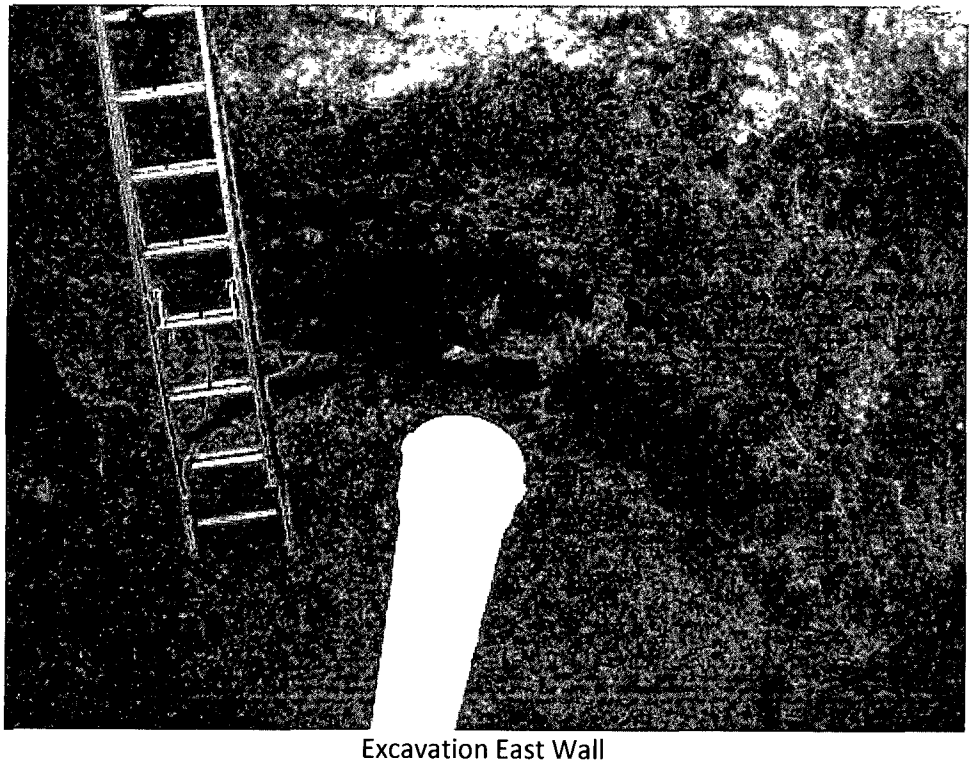
Tank 2 discharge line connection



Tank 2 excavated soil pile

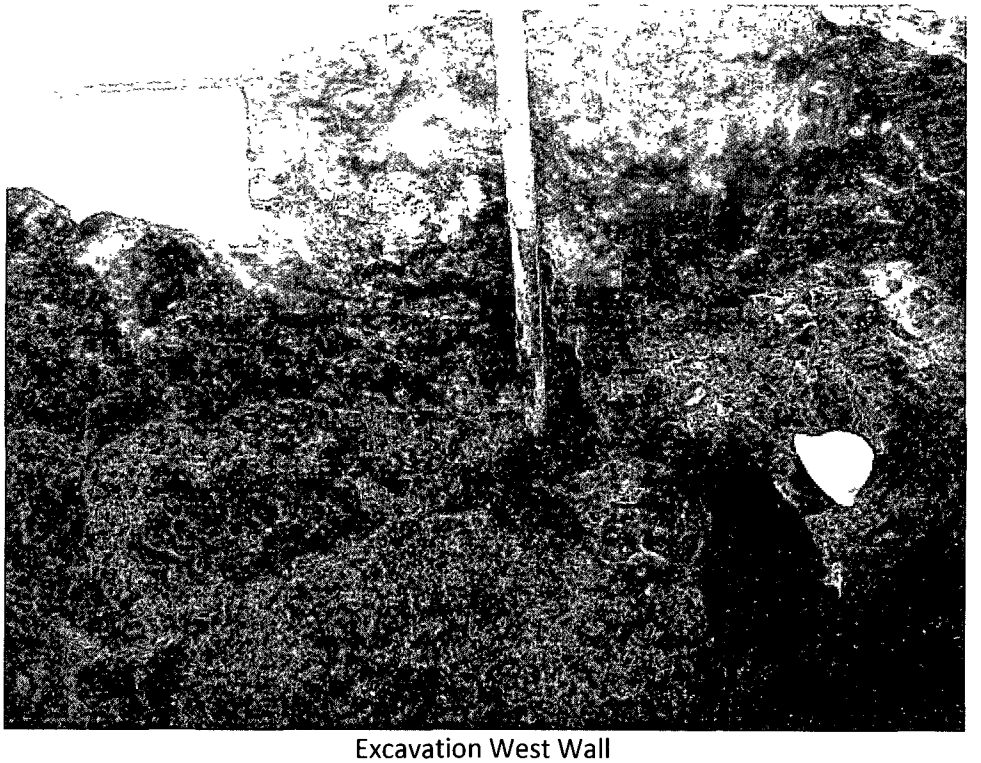


Backhoe removing Tank 2 from excavation

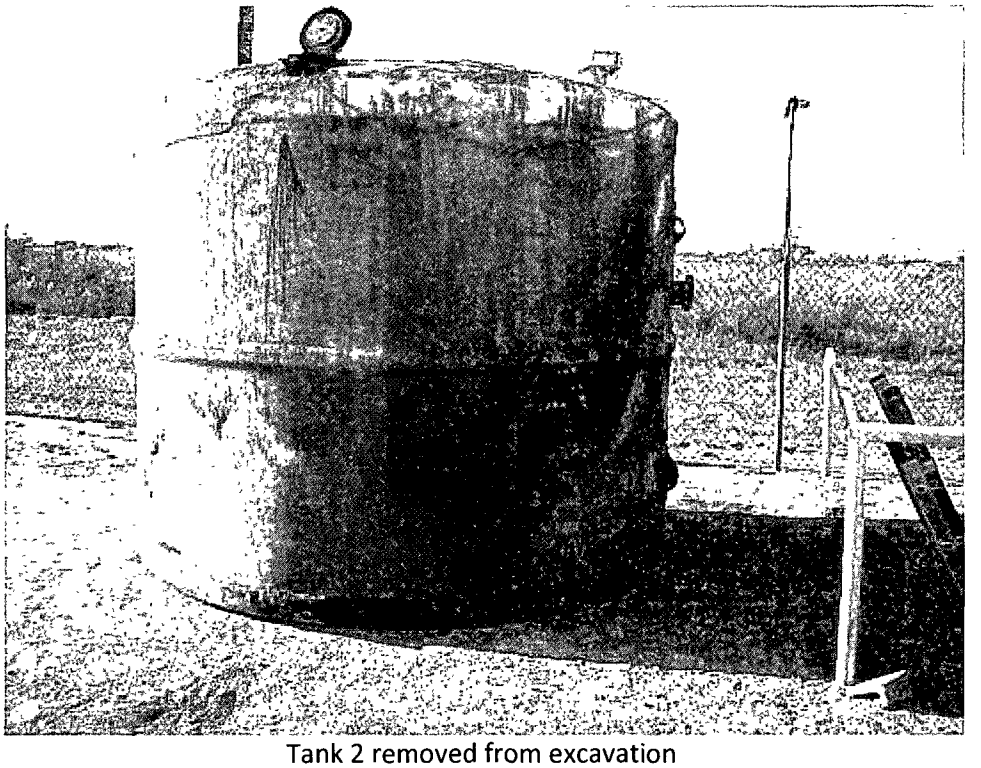


Excavation East Wall

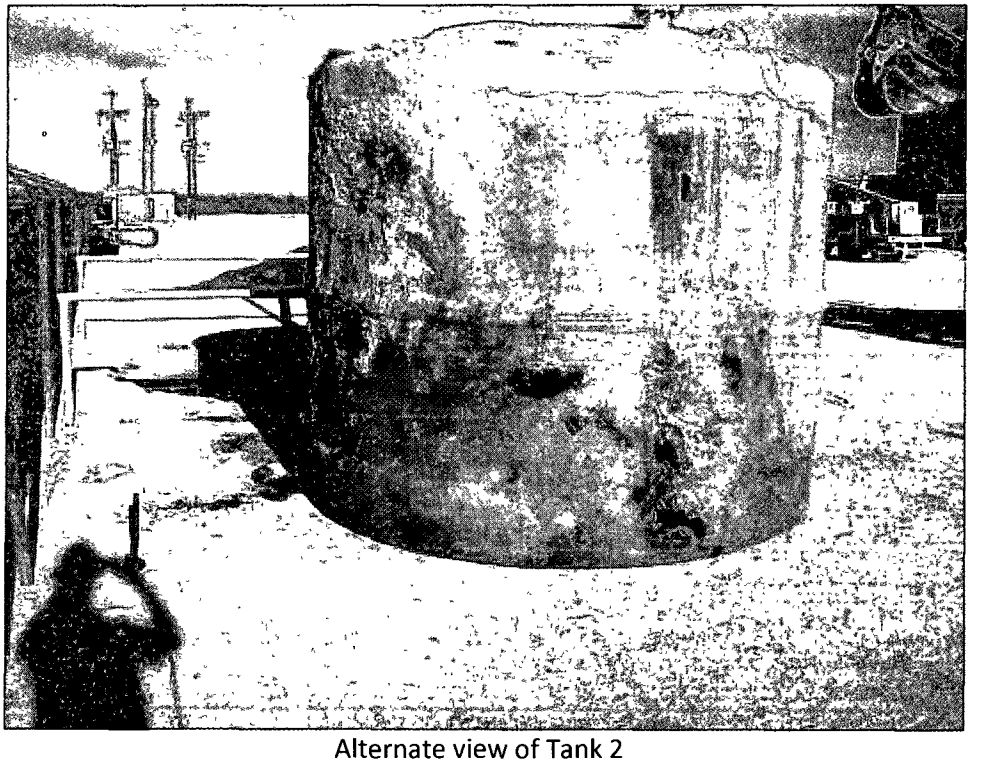
Excavation South Wall



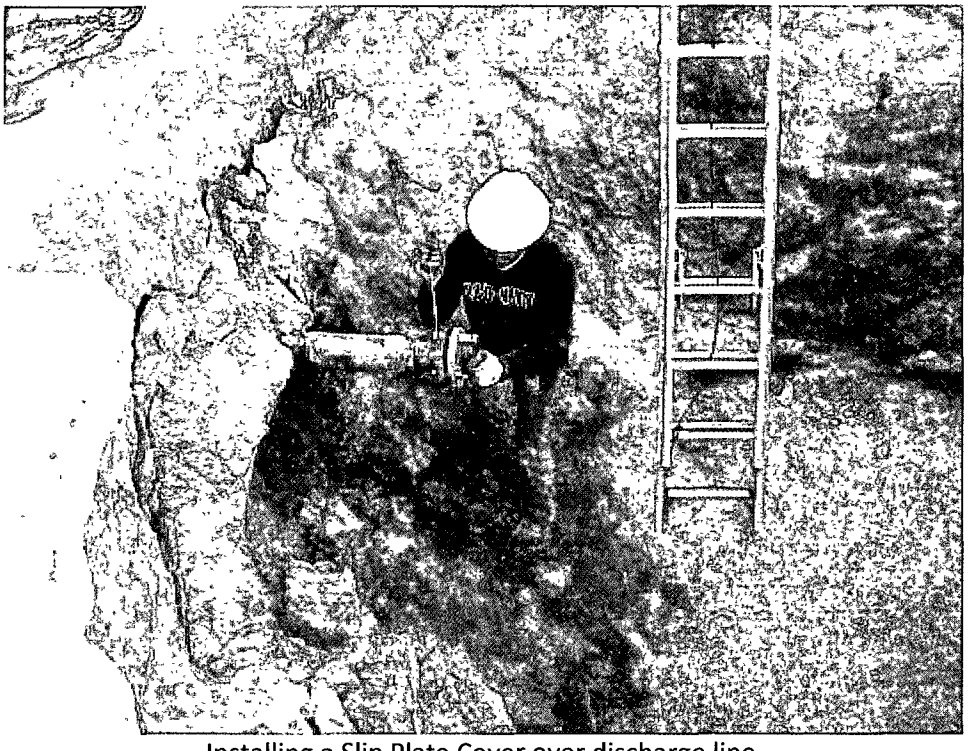
Excavation West Wall



Tank 2 removed from excavation



Alternate view of Tank 2



Installing a Slip Plate Cover over discharge line

Visibly stained soil on North Wall of excavation

Visibly stained soil was further excavated.

The site was backfilled with clean fill purchased from Jimmy Cooper, a local surface lease and landowner.