| <u>District I</u><br>1625 N. French Dr., Hobbs, NM 88240<br><u>District III</u><br>811 S. First St., Artesia, NM 88210<br><u>District III</u><br>1000 Rio Brazos Road, Aztec, NM 87410<br><u>District IV</u><br>1220 S. St. Francis Dr., Santa Fe, NM 87505   | State of New Mexico<br>Energy Minerals and Natural Resources<br>Department<br>Oil Conservation Division<br>1220 South St. Francis Dr.<br>Santa Fe, NM 87505       | Form C-144<br>Revised June 6, 2013<br>For temporary pits, below-grade tanks, and<br>multi-well fluid management pits, submit to the<br>appropriate NMOCD District Office.<br>For permanent pits submit to the Santa Fe<br>Environmental Bureau office and provide a copy<br>to the appropriate NMOCD District Office. |  |  |  |  |  |  |  |
|---|---|---|--|--|--|--|--|--|--|
| Pit, Below-Grade Tank, or         Proposed Alternative Method Permit or Closure Plan Application         Type of action:       Below grade tank registration         Permit of a pit or proposed alternative method       Output         Modification to an existing permit/or registration       Modification to an existing permit/or registration         Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method         Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request  |   |   |  |  |  |  |  |  |  |
|   | es not relieve the operator of liability should operations result in<br>a tor of its responsibility to comply with any other applicable go                        |   |  |  |  |  |  |  |  |
| 1.<br>Operator: _XTO Energy, Inc<br>Address: 382 Road 3100 Aztec, NM 87410  | OGRID #:5380  |   |  |  |  |  |  |  |  |
| Facility or well name: _PO Pipkin 6E         API Number: 30-045-25636OCD Permit Number:         U/L or Qtr/Qtr _BSection18Township27NRange10WCounty: San Juan         Center of Proposed Design: Latitude 36.623018Longitude107.93343NAD:1927 ⊠ 1983         Surface Owner: ⊠ Federal □ State □ Private □ Tribal Trust or Indian Allotment  |   |   |  |  |  |  |  |  |  |
| The second | P&A Multi-Well Fluid Management L ssmil LLDPE HDPE PVC 0  | - coal of the or production of the second second second second  |  |  |  |  |  |  |  |
| Tank Construction material: _Steel         Secondary containment with leak detection         Visible sidewalls and liner  | Type of fluid: _Produced Water  | verflow shut-off  |  |  |  |  |  |  |  |
| 4.<br>Alternative Method:<br>Submittal of an exception request is required  | Exceptions must be submitted to the Santa Fe Environme  | ental Bureau office for consideration of approval.  |  |  |  |  |  |  |  |
|   | C (Applies to permanent pits, temporary pits, and below-groof barbed wire at top (Required if located within 1000 feet in evenly spaced between one and four feet |   |  |  |  |  |  |  |  |
| Form C-144  | Oil Conservation Division   | Page 1 of 6 36  |  |  |  |  |  |  |  |

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

Screen INetting Other

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

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 19.15.16.8 NMAC

#### Variances 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:

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

#### 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. Siting criteria does not apply to drying pads or above-grade tanks.

#### **General siting**

| Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  | Yes No     |  |  |  |  |
|--|------------|--|--|--|--|
|  |            |  |  |  |  |
| Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.<br>NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  |            |  |  |  |  |
| No once of the state Engineer - TwATERS database search, 0505, Data obtained from hearby wens  | _          |  |  |  |  |
| <ul> <li>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. (Does not apply to below grade tanks)</li> <li>Written confirmation or verification from the municipality; Written approval obtained from the municipality</li> </ul>          | Yes No     |  |  |  |  |
| <ul> <li>Within the area overlying a subsurface mine. (Does not apply to below grade tanks)</li> <li>Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</li> </ul>  | Yes No     |  |  |  |  |
| <ul> <li>Within an unstable area. (Does not apply to below grade tanks)</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>  | 🗌 Yes 🗌 No |  |  |  |  |
| Within a 100-year floodplain. (Does not apply to below grade tanks)<br>- FEMA map  | Yes No     |  |  |  |  |
| Below Grade Tanks  | * 6        |  |  |  |  |
| <ul> <li>Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>   | Yes No     |  |  |  |  |
| <ul> <li>Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>   | Yes No     |  |  |  |  |
| Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)   |            |  |  |  |  |
| <ul> <li>Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>                                  | 🗋 Yes 🗌 No |  |  |  |  |
| Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.   | Yes No     |  |  |  |  |
| <ul> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>  |            |  |  |  |  |
| Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | Yes No     |  |  |  |  |

| Within 100 feet of a wetland.<br>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site   | Yes 🗌 No             |
|---|----------------------|
| Temporary Pit Non-low chloride drilling fluid   |                      |
| <ul> <li>Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>  | 🗌 Yes 🗌 No           |
| <ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>  | Yes No               |
| <ul> <li>Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>   | Yes 🗌 No             |
| <ul> <li>Within 300 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>   | 🗌 Yes 🗌 No           |
| Permanent Pit or Multi-Well Fluid Management Pit  |                      |
| <ul> <li>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).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>   | Yes No               |
| <ul> <li>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>   | Yes No               |
| <ul> <li>Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>  | 🗌 Yes 🗌 No           |
| Within 500 feet of a wetland.<br>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site   | Yes 🗌 No             |
| 10.         Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:       Subsection B of 19.15.17.9 N         Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc 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 19.15.17.10 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. and 19.15.17.13 NMAC         Previously Approved Design (attach copy of design)       API Number: or Permit Number: | NMAC<br>15.17.9 NMAC |
| II.<br>Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC   | Biliticici", B.      |
| Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc attached. 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 A List of wells with approved application for permit to drill associated with the pit. Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19. and 19.15.17.13 NMAC Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number:  |                      |

| <sup>12.</sup><br><u>Permanent Pits Permit Application Checklist</u> : Subsection B of 19.15.17.9 NMAC<br><i>Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the a</i>   | locuments 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         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 <sub>2</sub> S, 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 19.15.17.9 NMAC and 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 Multi-well Fl   | uid Management Pit |
| Proposed Closure Method: Waste Excavation and Removal<br>Waste Removal (Closed-loop systems only)   |                    |
| <ul> <li>On-site Closure Method (Only for temporary pits and closed-loop systems)</li> </ul>  |                    |
| In-place Burial On-site Trench Burial Alternative Closure Method  |                    |
| Waste Excavation and Removal Closure Plan Checklist:       (19.15.17.13 NMAC) Instructions: Each of the following items must be a 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 C 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 H of 19.15.17.13 NMAC             Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  | inucrea io ine     |
| 15.<br><u>Siting Criteria (regarding on-site closure methods only)</u> : 19.15.17.10 NMAC<br>Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable sour-<br>provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. P.<br>19.15.17.10 NMAC for guidance.  |                    |
| Ground water is less than 25 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<br>□ NA |
| Ground water is between 25-50 feet below the bottom of the buried waste<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | Yes No             |
| 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             |
| Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). <ul> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>   | Yes No             |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image  | Yes No             |
| Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, 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             |
| Written confirmation or verification from the municipality; Written approval obtained from the municipality   | Yes No             |
| Within 300 feet of a wetland.<br>US Fish and Wildlife Wetland Identification map; Topographic map; 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.<br>- Written confirmation or verification from the municipality; Written approval obtained from the municipality<br>Within the area overlying a subsurface mine.  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
| Within the area overlying a subsurface mine.   | Yes No   |  |  |  |  |  |
| <ul> <li>Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</li> </ul>  | Yes No   |  |  |  |  |  |
| Within an unstable area Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological   |  |  |  |  |  |  |
| Society; Topographic map<br>Within a 100-year floodplain.  | Yes No   |  |  |  |  |  |
| - FEMA map   | Yes No   |  |  |  |  |  |
| 16.         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,<br>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 E of 19.15.17.13 NMAC         Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K 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 19.15.17.13 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 19.15.17.13 NMAC         Waste Material Sampling Plan - based upon the appropriate requirements 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 H of 19.15.17.13 NMAC         Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC         Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC |  |  |  |  |  |  |
| 17.<br>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 beli  | ief.   |  |  |  |  |  |
| Name (Print): Title:   |  |  |  |  |  |  |
| Signature: Date:   | ł.   |  |  |  |  |  |
| e-mail address: Telephone:   |  |  |  |  |  |  |
| 18.       OCD Approval:       Permit Application (including closure plan)       Image: Chosure Plan (only)       OCD Conditions (see attachment)         OCD Representative Signature:   | 0-11   |  |  |  |  |  |
| Title: Environmental Spec. OCD Permit Number:  | 0/6  |  |  |  |  |  |
| Title: <u>Environmentel Spec</u> . OCD Permit Number:  | 0/6  |  |  |  |  |  |
| Title:       Environmental Spec.       OCD Permit Number:         19.       Closure Report (required within 60 days of closure completion):       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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.       OCHole.         Image: Closure Completion Date:       Image: Closure Completion Date:       OCHole.   | g the closure report.                              |  |  |  |  |  |
| Title: <u>Environmental Spec</u> . OCD Permit Number:<br><u>19.</u><br><u>Closure Report (required within 60 days of closure completion)</u> : 19.15.17.13 NMAC<br>Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting<br>The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not<br>section of the form until an approved closure plan has been obtained and the closure activities have been completed.<br>OCHOR  | the closure report.<br>t complete this<br>7, 20 {6 |  |  |  |  |  |

4

| 22.<br>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): Logan Hixon  | Title:EHS Coordinator     |  |  |  |  |  |  |
| Signature: 24 12   | Date: _October 10, 2016   |  |  |  |  |  |  |
| e-mail address: Logan_Hixon@xtoenergy.com  | Telephone: (505) 333-3100 |  |  |  |  |  |  |

x

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State of New Mexico Energy Minerals and Natural Resources

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

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

| 1220 S. St. Fran   | Santa Fe, NM 87505  |   |   |   |                                       |                            |  |   |  |                                |                                      |
|--|---|---|---|---|---------------------------------------|----------------------------|--|---|--|--------------------------------|--------------------------------------|
| Release Notification and Corrective Action   |   |   |   |   |                                       |                            |  |   |  |                                |                                      |
| OPERATOR Initial Report Sinal Report   |   |   |   |   |                                       |                            |  |   |  |                                |                                      |
| Name of Co   | mpany: X  | TO Energy.  | Inc.  |   | (                                     | Contact: Lo                | gan Hixon  |   |  |                                |                                      |
| Address: 38  |   |   |   | co 87410  |                                       |                            | No.: (505) 333-3   | 3683  |  |                                |                                      |
| Facility Nar   |   |   |   | 0001110   |                                       |                            | e: Gas Well  |   |  |                                |                                      |
|  |   |   |   |   |                                       |                            |  |   |  |                                |                                      |
| Surface Owner: Federal Land Mineral Owner API No. 30-045-2   |   |   |   |   |                                       |                            | 5105   |   |  |                                |                                      |
|  |   |   |   | LOCA  | TION                                  | OF RE                      | LEASE  |   |  |                                |                                      |
| Unit Letter  | Section   | Township  | Range   | Feet from the   | North/                                | South Line                 | Feet from the  | East/West Line  | County   | v.                             |                                      |
| В  | 18  | 27 N  | 10W   | 1070  |                                       | FNL                        | 1675   | FEL   | San Juan   | _                              |                                      |
| Latitude: N <u>36*.623018</u> Longitude: W-107*.93343<br>NATURE OF RELEASE   |   |   |   |   |                                       |                            |  |   |  |                                |                                      |
| Type of Rele   | ase: N/A  |   |   |   |                                       | Volume of                  | Release:   | Volume  | Recovered:                                       | 1.51.54.67                     |                                      |
| Source of Re   | lease: N/A  |   |   |   |                                       |                            | lour of Occurrenc  |   | d Hour of Dis                                    | covery                         | a 👘                                  |
|  |   |   |   |   |                                       | N/A                        |  | N/A   |  |                                |                                      |
| Was Immedia  | ate Notice C  |   | Yes 🗌   | No 🛛 Not R  | equired                               | If YES, To<br>N/A          | Whom?  |   |  |                                |                                      |
| By Whom?   |   |   |   |   |                                       | Date and H                 | lour   |   |  | _                              |                                      |
|  |   |   |   | olume Impacting t   | the Watercourse.                      |                            |  |   |  |                                |                                      |
|  |   |   | Yes 🛛   | No  |                                       |                            | IT (1975)  |   |  |                                |                                      |
| If a Watercou  |   |   |   |   |                                       |                            |  |   |  |                                |                                      |
| Describe Cause of Problem and Remedial Action Taken.*<br>The below grade tank was taken out of service at the PO Pipkin 6E well site due to the P&A'ing of this well site. A composite sample was collected<br>beneath the location of the on-site BGT, and submitted for laboratory analysis for TPH via USEPA Method 8015 (C6-C36), Benzene and BTEX via<br>USEPA Method 8021, and for total chlorides. The sample returned results below the 'Pit Rule' spill confirmation standards for TPH, Benzene, Total<br>BTEX and the total chlorides, confirming that a release has not occurred at this location.<br>Describe Area Affected and Cleanup Action Taken.* |   |   |   |   |                                       |                            |  |   |  |                                |                                      |
|  |   | irmed for this                                    |   |   |                                       |                            |  |   |  | 0.00                           |                                      |
| regulations a<br>public health<br>should their o<br>or the environ   | Il operators<br>or the envir<br>operations h<br>nment. In a | are required t<br>conment. The<br>ave failed to a | o report ar<br>acceptance<br>adequately<br>OCD accept | nd/or file certain r<br>ce of a C-141 report<br>investigate and r | release no<br>ort by the<br>remediate | e NMOCD m<br>contamination | knowledge and u<br>nd perform correc<br>arked as "Final R<br>on that pose a thr<br>e the operator of | ctive actions for re-<br>eport" does not re-<br>eat to ground wat | eleases which<br>elieve the ope<br>er, surface w | may er<br>rator of<br>ater, hu | ndanger<br>f liability<br>man health |
| Signature: Joy U   |   |   |   |   |                                       |                            |  |   |  |                                |                                      |
| Printed Name   | e: Logan Hi   | xon   |   |   |                                       | Approved by                | Environmental S  | pecialist:  |  |                                |                                      |
| Title: EHS C   | oordinator  |   |   | 177. J. M   |                                       | Approval Da                | te:  | Expiratio   | n Date:  |                                |                                      |
| E-mail Addr  | ess: Logan_   | Hixon@xtoer                                       | nergy.com   |   |                                       | Conditions o               | f Approval:  |   | Attached   |                                |                                      |
| Date: Octob  | er 10, 2016   | . 101   | Phone   | e: 505-333-3683   |                                       |                            |  |   |  |                                |                                      |

\* Attach Additional Sheets If Necessary

## **XTO Energy Inc.** San Juan Basin **Below Grade Tank Closure Report**

Lease Name: PO Pipkin 6E API No.: 30-045-25636 Description: Unit B, Section 18, Township 27N, Range 10W, San Juan County

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure requirements of below-grade tanks on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all below-grade tanks. A separate plan will be submitted for any below-grade tank which does not conform to this plan.

#### **General Plan**

1. XTO will close below-grade tanks within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment. **Closure Date is October 7, 2016** 

- 2. XTO will close a below-grade tank that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC. **Closure Date is October 7, 2016**
- 3. XTO will close a permitted below-grade tank within 60 days of cessation of the below-grade tank's operation or as required by the transitional provisions of Subsection B of 19.15.17.17 NMAC in accordance with a closure plan that the appropriate division district office approves. The closure report will be filed on form C-144. Required C-144 Form is attached to this document.

XTO will remove liquids and sludge from below-grade tanks prior to implementing a closure 4. method and will dispose of the liquids and sludge in a division-approved facility. Approved facilities and waste streams include:

Envirotech Permit No. NM01-0011 and IEI Permit No. NM 01-0010B

Soil contaminated by exempt petroleum hydrocarbons

Produced sand, pit sludge and contaminated bottoms from storage of exempt wastes

Basin Disposal Permit No. NM01-005

Produced water

All liquids and sludge were removed from the tank prior to closure activities.

5. XTO will remove the below-grade tank and dispose of it in a division approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves. XTO has removed the below grade tank, and will dispose of it at a division approved facility, or recycle, reclaim or reuse it in a manner that is approved by the division.

6. XTO will remove any on-site equipment associated with a below-grade tank unless the equipment is required for some other purpose.
 All equipment has been removed due to the plugging and abandoning of the PO Pipkin 6E

- well site.
- 7. XTO will test the soils beneath the below-grade tank to determine whether a release has occurred. At a minimum 5 point composite sample will be collected along with individual grab samples from any area that is wet, discolored or showing other evidence of a release. Samples will be analyzed for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. XTO will notify the division of its results on form C-141.

## A five point composite sample was taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). (Sample results attached).

| Components | Test Method               | Limit (mg/Kg)     | Results       |
|------------|---------------------------|-------------------|---------------|
| Benzene    | EPA SW-846 8021B or 8260B | 0.2               | 0.00105 mg/kg |
| BTEX       | EPA SW-846 8021B or 8260B | 50                | 0.00105 mg/kg |
| TPH        | EPA SW-846 8015 (C6-C36)  | 100               | 12.45 mg/kg   |
| Chlorides  | EPA 300.1                 | 250 or background | 136 mg/kg     |

- If XTO or the division determines that a release has occurred, XTO will comply with 19.15.3.116 NMAC and 19.15.1.19NMAC as appropriate.
   No release has been confirmed at this location
- 9. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, XTO will backfill the excavation with compacted, non-waste containing, earthen material; construct a division prescribed soil cover; recontour and re-vegetate the site. The pit cellar was backfilled using compacted, non-waste containing earthen material, with a division prescribed soil cover.
- Notice of Closure operations will be given to the Aztec Division District III office between 72 hours and one week prior to the start of closure activities via email or verbally. The notification will include the following:
  - i. Operator's name
  - ii. Well Name and API Number
  - iii. Location by Unit Letter, Section, Township, and Range

Notifications were provided to Mr. Cory Smith with the Aztec office of the OCD via email on September 1, 2016 initially and on September 12, 2016 for a change of dates and times; see attached email printout. The surface owner shall be notified of XTO's proposal to close the BGT as per the approved closure plan using certified mail, return receipt requested.

The surface owner was notified on September 1, 2016 initially and on September 12, 2016 for a change of dates and times via email. Email has been approved as a means of surface owner notification to the BLM by Brandon Powell, NMOCD Aztec Office.

11. Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.

The location will be recontoured to match the above specifications.

12. A minimum of 4 feet of cover shall be achieved and the cover shall include 1 foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.

#### The site has been backfilled to match these specifications.

- 13. XTO will seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other divisionapproved methods. BLM or Forest Service stipulated seed mixes will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs. Site will be reclaimed pursuant to the BLM MOU.
- 14. All closure activities will include proper documentation and be available for review upon request and will be submitted in closure report form to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on form C-144 and incorporate the following:
  - i. Proof of closure notice to division and surface owner; attached
  - ii. Details on capping and covering, where applicable; per OCD Specifications
  - iii. Inspection reports; attached
  - iv. Confirmation sampling analytical results; attached
  - v. Disposal facility name(s) and permit number(s); see above
  - vi. Soil backfilling and cover installation; per OCD Specifications
  - vii. Re-vegetation application rates and seeding techniques, (or approved alternative to re-vegetation requirements if applicable); **Per BLM MOU.**
  - viii. Photo documentation of the site reclamation. attached



## ANALYTICAL REPORT September 26, 2016



## **XTO Energy - San Juan Division**

Sample Delivery Group: Samples Received: Project Number:

L859390 09/14/2016

Description:

PO Pipkin 6E

Report To:

Logan Hixon 382 County Road 3100 Aztec, NM 87410

Entire Report Reviewed By: Napline & Richards

Daphne Richards **Technical Service Representative** 

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

## TABLE OF CONTENTS

|   | A STATE OF STATES             | 이 이 아니는 것 같아. | * 3 pc * 4      | N 8 2 | 1.1.1.    |
|---|-------------------------------|---------------|-----------------|-------|-----------|
| <sup>1</sup> Cp: Cover Page                 |                               |               | 파란              |       |           |
| <sup>2</sup> Tc: Table of Contents          |                               |               |                 |       | 2         |
| <sup>3</sup> Ss: Sample Summary             |                               |               |                 |       |           |
| <sup>4</sup> Cn: Case Narrative             |                               |               | 1997            |       |           |
| <sup>5</sup> Sr: Sample Results             |                               |               | 7244            |       |           |
| FARCH-091316-0830 L859390-01                | <u>Best (</u> B)              |               | $\{ \{ i \} \}$ |       | 117       |
| <sup>6</sup> Qc: Quality Control Summary    | na se gini da<br>Granda da se |               |                 |       |           |
| Total Solids by Method 2540 G-201           | 1                             |               |                 |       |           |
| Wet Chemistry by Method 9056A               |                               |               |                 |       |           |
| Volatile Organic Compounds (GC) b           | y Method 8015                 | /8021         |                 |       |           |
| Semi-Volatile Organic Compounds             | (GC) by Method                | 1 8015        |                 |       |           |
| <sup>7</sup> GI: Glossary of Terms          |                               |               |                 |       |           |
| <sup>8</sup> Al: Accreditations & Locations |                               |               |                 |       |           |
| <sup>9</sup> Sc: Chain of Custody           |                               |               |                 |       |           |
| 승규가 가지 않는 것은 것은 것을 잘 하는 것이 가 있는 것을 한다.      | 지금 나는 것 같아. 신다                | 있는 같은 사람이 같아. | 12 10 1 2       | 11111 | 1 2 3 7 3 |





PROJECT:

SDG:

### SAMPLE SUMMARY

## ONE LAB, NATIONWIDE.

| FARCH-091316-0830 L859390-01 Solid                  |          |          | Collected by<br>Logan H. | Collected date/time<br>09/13/16 08:30 | Received date/time<br>09/14/16 09:00 |
|---|----------|----------|--------------------------|---------------------------------------|--------------------------------------|
| Method  | Batch    | Dilution | Preparation<br>date/time | Analysis<br>date/time                 | Analyst                              |
| Semi-Volatile Organic Compounds (GC) by Method 8015 | WG907997 | 1        | 09/14/16 21:12           | 09/15/16 20:29                        | DMG                                  |
| Total Solids by Method 2540 G-2011                  | WG908032 | 1        | 09/15/16 10:21           | 09/15/16 10:29                        | KDW                                  |
| Volatile Organic Compounds (GC) by Method 8015/8021 | WG908906 | 1        | 09/18/16 22:02           | 09/23/16 09:40                        | LRL                                  |
| Wet Chemistry by Method 9056A                       | WG909449 |          | 09/20/16 16:30           | 09/21/16 13:37                        | СM                                   |

K

PAGE:

## CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

laplime R Richards

Daphne Richards Technical Service Representative





PAGE:

# SAMPLE RESULIS - 01

Fc

Ss Cr

Sr

Qc

GI

AI

Sc

## Total Solids by Method 2540 G-2011

| en di Berd di desi | Result Q | ualifier Dilution | Analysis Batch        | i produkti je stali se stali s | A LEAST AND A LEAST |                |
|--------------------|----------|-------------------|-----------------------|---|---------------------|----------------|
| Analyte            | . %      |                   | date / time           |   |                     | 12.00          |
| Total Solids       | 83.0     | 1.1               | 09/15/2016 10:29 WG90 | 8032  |                     | in sent fitter |

### Wet Chemistry by Method 9056A

| Re          | esult (dry) Qualifier | RDL (dry) Dilutio | n Analysis       | Batch                                    | i fan seitte    |
|-------------|-----------------------|-------------------|------------------|--|-----------------|
| Analyte     | g/kg                  | mg/kg             | date / time      | an a | 2 5 1 2 1 7 2 4 |
| Chloride 13 | 16                    | 12.1 1            | 09/21/2016 13:37 | WG909449                                 |                 |

#### Volatile Organic Compounds (GC) by Method 8015/8021

|                                 | Result (dry) Qual | The second s | Vilution Analysis | Batch                                     |
|---------------------------------|-------------------|--|-------------------|---|
| Analyte                         | mg/kg             | mg/kg  | date / time       | 이 것이 가지 않는 것은 사람들이 많이 있는 것이 있는 것이 있는 것이다. |
| Benzene                         | 0.00105           | 0.000603 1   | 09/23/2016 09:40  | WG908906                                  |
| Toluene                         | ND                | 0.00603 1  | 09/23/2016 09:40  | WG908906                                  |
| Ethylbenzene                    | ND                | 0.000603 1   | 09/23/2016 09:40  | WG908906                                  |
| Total Xylene                    | ND                | 0.00181 1  | 09/23/2016 09:40  | WG908906                                  |
| TPH (GC/FID) Low Fraction       | ND                | 0.121 1  | 09/23/2016 09:40  | WG908906                                  |
| (S) a,a,a-Trifluorotoluene(FID) | 106               | 59.0-128   | 09/23/2016 09:40  | WG908906                                  |
| (S) a,a,a-Trifluorotoluene(PID) | 113               | 54.0-144   | 09/23/2016 09:40  | WG908906                                  |

#### Semi-Volatile Organic Compounds (GC) by Method 8015

|                      | Result (dry) | Qualifier RDL (dry) Dilut | ion Analysis     | Batch                       |
|----------------------|--------------|---------------------------|------------------|-----------------------------|
| Analyte              | mg/kg        | mg/kg                     | date / time      | 승규가 가지 않는 것 같은 것이 없는 것이 없다. |
| C10-C28 Diesel Range | 7.61         | 4.82 1                    | 09/15/2016 20:29 | WG907997                    |
| C28-C40 Oil Range    | 4.84         | 4.82 1                    | 09/15/2016 20:29 | WG907997                    |
| (S) o-Terphenyl      | 70.5         | 50.0-150                  | 09/15/2016 20:29 | WG907997                    |

Total Solids by Method 2540 G-2011

# QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE:

| Netho              | d Blank           | (MB       |
|--------------------|-------------------|-----------|
| in an a little and | a desta a desta a | The other |

|    | The sign of these and the regenter from a | 1.0.0 | THE REPORT   | THERE MADE | <ol> <li>1.694.010</li> </ol> | STRUCK STR | 10.61 200 | 11 10 10   | 1.54     | August and | And Address | and Andrew 1 | 10.00                     |        | and the second | 1.1.1 | 1.156 | - 11 L - 14 | 1    | 1.2.2    | 1417   | 1.1   |
|----|---|-------|--------------|------------|-------------------------------|------------|-----------|------------|----------|------------|-------------|--------------|---------------------------|--------|----------------|-------|-------|-------------|------|----------|--------|-------|
| 1  | (MB) R3163979-1 09/15/16 10:29            |       | 1.1.1.1.1.   | a ki a ki  | in film                       |            | 13.21     | in the     | 1174     | 1101       | 1.8.2.1.    |              | 143                       |        | 10             | 24    |       | 1. 1. 1.    | 1.24 |          | 1. 5.4 | 1     |
| 1  | MB Re                                     | sult  | MB Qualifier | MB MDL     | M                             | BRDL       | al theat  | ingen (* 1 | 1.1      | 1          | 1           | 1. 24        | Contraction of the second | 193. T | 26.0           | 1.00  | See.  | 70 Å 70.    | 199  | 99. D.C. |        | 1.2   |
| 14 | Analyte %                                 |       |              | %          | %                             | and        | 1.1.1.1.1 |            | 1 Sector | 1.2        |             |              |                           | 4      |                |       |       | 1.1.1.4.1   | 1111 | 1.1      |        | 1     |
| 1  | Total Solids 0.00110                      | )     |              |            | 1997                          |            | 1.200     | 29.672     | 1979     | 1725       | 1219-11     |              |                           | 224    |                | 1.1   | 19. N | 19.142      |      |          |        | 4.434 |

#### L859387-01 Original Sample (OS) • Duplicate (DUP)

| 5.4 | (OS) L859387-01 09/ | 15/16 10:29 • (DU | P) R3163979-3 0 | 9/15/16 10:29 |                   |                |
|-----|---------------------|-------------------|-----------------|---------------|-------------------|----------------|
| 1   |                     | Original Res      | ult DUP Result  | Dilution DUP  | RPD DUP Qualifier | DUP RPD Limits |
| ł   | Analyte             | %                 | %               | %             |                   | %              |
|     | Total Solids        | 82.1              | 82.8            | 1 0.854       |                   | 5              |

#### Laboratory Control Sample (LCS)

| 2  | (LCS) R3163979-2 09/15/161 | 10:29                   |               |   | 20년 11월 21일 - 11일 - | Alter Attended       | Construction of the second second  |
|----|----------------------------|-------------------------|---------------|---|---------------------|----------------------|--|
|    |                            | Spike Amount LCS Result | LCS Rec. Rec. | Limits LCS Qualifier  |                     | shall in take in the | al carde a service de la carde de la c |
|    | Analyte                    | % %                     | %             | The part of the second s | es internet inter   |                      |  |
| ŝ, | Total Solids               | 50.0 50.0               | 99.9 85.0     | )-115   |                     |                      |  |

PROJECT:

#### Wet Chemistry by Method 9056A

# QUALITY CONTROL SUMMARY

| MB Result         MB Qualifier<br>mg/kg         MB RDL<br>mg/kg         MB RDL<br>mg/kg           Analyte         mg/kg  | (MB) R3165098-2 0 | 9/21/16 07:45  |   |                   |                              | 그는 것 같은 것 같은 것 같은 것 같은 것 같은 것 같은 것 같이 것 같이           |
|--|-------------------|--|---|-------------------|------------------------------|--|
| Chloride         U         0.795         10.0           LB60542-07 Original Sample (OS) + Duplicate (DUP)         Edeo542-07 Original Result (OVP) R3165098-5 O9/21/16 O8:57         Original Result (OVP) R3165098-5 O9/21/16 O8:57           Original Result (dry)         DUP Result (dry) Dilution         DUP RPD         DUP Qualifier         DUP RPD Limits           Analyte         mg/kg         mg/kg         %         %         6           Chloride         3060         3020         5         1         15           LB59390-01 Original Sample (OS) + Duplicate (DUP)         5         15         5           LB59390-01 O/21/16 13:37 · (DUP) R3165098-8: 09/21/16 13:46         Original Result (dry) Dilution         DUP RPD Limits           (dry)         mg/kg         %         0UP Result (dry) Dilution         DUP RPD Limits           Analyte         mg/kg         mg/kg         %         0UP RPD Limits   |                   | MB Result  | MB Qualifier                                    | MB MDL            | MB RDL                       |  |
| L860542-07 Original Sample (OS) + Duplicate (DUP)         Original Result (dry) Dilution DUP RPD DUP Qualifier (dry)         DuP Result (dry) Dilution QUP RPD       DUP Qualifier QUP RPD Limits         Analyte       mg/kg       mg/kg       %         Chloride CS) + Duplicate (DUP)         L859390-01 Original Result (dry) Dilution (DUP RPD Limits)         (OS) L859390-01 Original Result (dry) Dilution (DUP RPD Limits)       DUP Result (dry) Dilution (DUP RPD Limits)         Original Result (dry) Dilution (DUP RPD Limits)         (OS) L859390-01 Original Result (dry) Dilution (DUP RPD Limits)       DUP Result (dry) DILution (DUP RPD Limits)         Analyte       mg/kg       mg/kg       DUP Result (dry) DILution (DUP RPD Limits)   | Analyte           | mg/kg  |   | mg/kg r           | ng/kg                        | 그 아이는 그 그는 것은 것이 아이는 것이 것이 집에 가지 않는 것이 가지 않는 것이 없다.  |
| COS) L860542-07         O9/21/16         08:49 • (DUP)         R3165098-5         O9/21/16         08:57           Original Result<br>(dry)         DUP Result (dry)         DUP RPD         DUP Qualifier         DUP RPD Limits.           Analyte         mg/kg         mg/kg         %         %           Chloride         3060         3020         5         1         15           L859390-01         Original Sample (OS) • Duplicate (DUP)              (OS) L859390-01         09/21/16         13:37 • (DUP) R3165098-8         09/21/16         13:46           Original Result<br>(dry)         DUP Result (dry) Dilution         DUP RPD         DUP Qualifier         DUP RPD           Analyte         mg/kg         mg/kg         %         %  | Chloride          | U  | a tra tra                                       | 0.795 1           | 0.0                          |  |
| COS) L860542-07         O9/21/16         08:49 • (DUP)         R3165098-5         O9/21/16         08:57           Original Result<br>(dry)         DUP Result (dry)         DUP RPD         DUP Qualifier         DUP RPD Limits.           Analyte         mg/kg         mg/kg         %         %           Chloride         3060         3020         5         1         15           L859390-01         Original Sample (OS) • Duplicate (DUP)              (OS) L859390-01         09/21/16         13:37 • (DUP) R3165098-8         09/21/16         13:46           Original Result<br>(dry)         DUP Result (dry) Dilution         DUP RPD         DUP Qualifier         DUP RPD           Analyte         mg/kg         mg/kg         %         %  |                   |  |   | el de el de de    |                              |  |
| COS) L860542-07         O9/21/16         O8:49 • (DUP) R3165098-5         O9/21/16         08:57           Original Result<br>(dry)         DUP Result (dry) Dilution         DUP RPD         DUP Qualifier         DUP RPD Limits.           Analyte         mg/kg         mg/kg         %         %           Chloride         3060         3020         5         1         15           L859390-01 Original Sample (OS) • Duplicate (DUP)               (OS) L859390-01 09/21/16 13:37 • (DUP) R3165098-8         09/21/16 13:46             Original Result<br>(dry)         DUP Result (dry) Dilution         DUP RPD         DUP Qualifier         DUP RPD Limits           Analyte         mg/kg         mg/kg         %   | 0000540.07        |  |   |                   | 19년 19년 일                    | 동물 날 물감 말 많은 것을 알 말 알 알 말 말 말 감 하는 것 하는 것 같아. 것 같아.  |
| Original Result<br>(dry)     DUP Result (dry) Dilution     DUP RPD     DUP RPD Limits       Analyte     mg/kg     mg/kg     %     %       Chloride     3060     3020     5     1     15       L859390-01 Original Sample     COS) + Duplicate (DUP)     UP RPD Limits       (OS) L859390-01 O9/21/16     13:37 + (DUP) R3165098-8     09/21/16     13:46       Original Result<br>(dry)     DUP Result (dry) Dilution     DUP RPD     DUP RPD Limits       Analyte     mg/kg     mg/kg     %     %   | L860542-07 C      | Priginal Sample  | (OS) • Dupi                                     | icate (DUP)       |                              |  |
| (dry)         DOP Result (dry) bildton         DOP APD         DOP Guainter         DOP APD         Mainter         DOP APD         Ministration         DOP APD         Ministration         DOP APD         Ministration         DOP APD         Ministration         DOP APD         Dip Apd         Ministration         DOP APD         Dip | (OS) L860542-07 0 | )9/21/16 08:49 · (DUP)   | R3165098-5 0                                    | 9/21/16 08:57     | 201201201                    |  |
| Analyte         mg/kg         mg/kg         %         %           Chloride         3060         3020         5         1         15           L859390-01 Original Sample (OS) + Duplicate (DUP)         K         K         K         K           (o's) L859390-01 O9/21/16 13:37 + (DUP) R3165098-8: 09/21/16 13:46         UP Result (dry) Dilution         DUP RPD         DUP RPD Limits           Analyte         mg/kg         mg/kg         %         %   |                   |  | DUP Result (dry)                                | Dilution DUP R    | DUP Qualifier                | DUP RPD Limits                                       |
| L859390-01 Original Sample (OS) • Duplicate (DUP)<br>(OS) L859390-01 09/21/16 13:37 • (DUP) R3165098-8 09/21/16 13:46<br>Original Result<br>(dry)<br>Analyte mg/kg mg/kg % <u>DUP Qualifier</u> DUP RPD Limits   | Analyte           |  | mg/kg   | %                 |                              |  |
| OCS) L859390-01         O9/21/16         13:37 + (DUP)         R3165098-8         O9/21/16         13:46           Original Result<br>(dry)         DUP Result (dry) Dilution         DUP RPD         DUP Qualifier         DUP RPD Limits           Analyte         mg/kg         mg/kg         %         %   | Chloride          | 3060   | 3020  | 5 1               |                              | <b>15</b>  |
| (OS) L859390-01 09/21/16 13:37 + (DUP) R3165098-8 09/21/16 13:46<br>Original Result<br>(dry)<br>Analyte mg/kg mg/kg % %  |                   | 다 아파 아파 아파   | 김 김 김 씨는 아이는 아이는 아이는 아이는 아이는 아이는 아이는 아이는 아이는 아이 |                   |                              | 그는 바람이 없는 것은 것은 것이 있는 것이 많은 것이 많은 것이 없는 것이 없는 것이 없다. |
| Original Result<br>(dry)         DUP Result (dry) Dilution         DUP RPD         DUP Qualifier         DUP RPD Limits           Analyte         mg/kg         mg/kg         %         %  | 14 14 14 14       | n per serie de la Consecta de la co<br>La consecta de la cons | 영상 같은 것이 같아.                                    |                   |                              | 성 위험             |
| Original Result<br>(dry)     DUP Result (dry) Dilution     DUP RPD     DUP Qualifier       Analyte     mg/kg     mg/kg     %   | L859390-01 O      | riginal Sample (   | OS) • Dupli                                     | cate (DUP)        | te and te and te at          |  |
| Original Result<br>(dry)     DUP Result (dry) Dilution     DUP RPD     DUP Qualifier       Analyte     mg/kg     mg/kg     %   | (OS) L859390-01 0 | 9/21/16 13:37 • (DUP) F  | 3165098-8 09                                    | /21/16 13:46      |                              |  |
| Analyte mg/kg %  | ALC: NO.          | Original Result  |   | the second second | PD DUP Qualifier             | DUP RPD Limits                                       |
|  |                   |  |   |                   | e <u>europe</u>              |  |
|  |                   |  | mg/kg   |                   | e. There is the interest the | <b>76</b>  |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

| (LCS) R3165098-3 | 3 09/21/16 | 5 07:54 • (LC | SD) R3165098- | 4 09/21/16 08 | :03      | 21년 41년 41 | te stal da  |                            |                |     |            | 1.2.1.2.2. | 문제 공기 문제 문제 |             | 1.1.1   |
|------------------|------------|---------------|---------------|---------------|----------|------------|-------------|----------------------------|----------------|-----|------------|------------|-------------|-------------|---------|
|                  | the state  | Spike Amour   | t LCS Result  | LCSD Result   | LCS Rec. | LCSD Rec.  | Rec. Limits | LCS Qualifier              | LCSD Qualifier | RPD | RPD Limits | The States | i seller    | al peak for | a, free |
| Analyte          |            | mg/kg         | mg/kg         | mg/kg         | %        | %          | %           |                            |                | %   | %          |            |             |             |         |
| Chloride         |            | 200           | 177           | 177           | 88       | 88         | 80-120      | 9. T <mark>1</mark> 8. T19 |                | 0   | 15         |            |             | 1256.225    |         |

## L860540-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| 7 | (OS) L86 | 6054 | 0-02 | 09/2 | 21/16  | 10:27 •           | (MS) R  | 316509            | 3-6 09 | 9/21/16 | 10:37     | (MSD) R | 31650   | 098-7 | 09/2   | 1/16 10        | 0:46 | 1.1.1 | 1111   | 197    | 1977     | 11  | 17.2       | 17           |             | 2.2    | 1 1 1 | 227 | 124                                       | 1.1.1 |
|---|----------|------|------|------|--------|-------------------|---------|-------------------|--------|---------|-----------|---------|---|-------|--------|----------------|------|-------|--------|--------|----------|-----|------------|--------------|-------------|--------|-------|-----|---|-------|
|   |          | 20.  |      |      |        | Spike Ar<br>(dry) | mount   | Original<br>(dry) | Result | MS Re   | sult (dry | MSD F   | Result  | M     | S Rec. | taile<br>Maria | MSD  | Rec.  | Diluti | on Red | . Limits | M   | S Qualifie | <u>r 1</u>   | ASD Qualifi | er RPD | f     | RF  | D Limits                                  |       |
| 1 | Analyte  | 1 10 |      |      | 42. Ku | mg/kg             |         | mg/kg             | 1.     | mg/kg   |           | mg/kg   | 1.1.1   | %     | 112    |                | %    |       |        | - %    | 1.1.1.   | 111 | 1 Sala     | k sind<br>Na |             | - %    | 말날    | %   | $  _{\mathcal{T}_{n}} _{\mathcal{T}_{n}}$ | 4.5   |
| 1 | Chloride |      |      |      | 1      | 125               | 1.0.174 | 2060              | 1      | 2540    | 1 1 1     | 2600    | in deservations<br>and a second | 77    |        | 122            | 86   |       | 5      | 80-    | 120      | Je  |            |              |             | 2      |       | 15  | 199                                       |       |

PROJECT:

Cr



Volatile Organic Compounds (GC) by Method 8015/8021

#### Method Blank (MB)

| Benzene U.<br>Toluene 0.000441 <u>J</u> | 0.000120      | Colorest and the second |
|---|---------------|-------------------------|
| Toluene 0.000441 J                      |               | 0.000500                |
|   | 0.000150      | 0.00500                 |
| Ethylbenzene 0.000123 J                 | 0.000110      | 0.000500                |
| Total Xylene U                          | 0.000460      | - 0.00150               |
| TPH (GC/FID) Low Fraction 0.0404 J      | 0.0217        | 0.100                   |
| (S) a.a.a-Trifluorotoluene(FID) 107     |               | 59.0-128                |
| (S) a.a.a-Trifluorotoluene(PID) 113     | a line line l | 54.0-144                |

## Laboratory Control Sample (LCS) - Laboratory Control Sample Duplicate (LCSD)

| J.       | (LCS) R3165865-1 09/23/16  | 03:19 · (LCSD     | ) R3165865-2                            | 09/23/16 03:43  | 3. 1     |           |                           | 111月11月月                       | 지금 지금 것        |            |
|----------|--|-------------------|---|---|----------|-----------|---------------------------|--------------------------------|----------------|------------|
| 1.       | and a second | Spike Amount      | LCS Result                              | LCSD Result   | LCS Rec. | LCSD Rec. | Rec. Limits LCS Qualifier | LCSD Qualifier                 | RPD            | RPD Limits |
|          | Analyte  | mg/kg             | mg/kg                                   | mg/kg   | %        | %         | %                         |                                | %              | %          |
|          | Benzene  | 0.0500            | 0.0483                                  | 0.0482  | 96.6     | 96.5      | 70.0-130                  | State States                   | 0.0900         | 20         |
| 0<br>100 | Toluene  | 0.0500            | 0.0482                                  | 0.0476  | 96.4     | 95.2      | 70:0-130                  | ta je a je s                   | 1.26           | 20         |
| <u>.</u> | Ethylbenzene   | 0.0500            | 0.0508                                  | 0.0504  | 102      | 101       | 70.0-130                  |                                | 0.870          | 20         |
|          | Total Xylene   | 0.150             | 0.156                                   | 0.155   | 104      | 103       | 70.0-130                  | 가지, 하지, 한다                     | 0.940          | 20         |
| -        | (S) a,a,a-Trifluarotoluene(FID)  | the second second | 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - | 19979-221   | 107      | 107       | 59.0-128                  |                                | 25 (1925) (193 |            |
| 1 G<br>2 | (S) a,a,a-Trifluorotoluene(PID)  |                   | al da sina a                            | نځي ايند فينځي ايند اه اه<br>ماندين بريده دي. بې مردا | 112      | 112       | 54.0-144                  | l she she she she<br>hay she y | [[] 위에 [] 위에   | 공한다는다.     |

## Laboratory Control Sample (LCS) · Laboratory Control Sample Duplicate (LCSD)

| (LCS) R3165865-3 09/2       | 3/16 04:08 • (LC | SD) R3165865 | -4 09/23/16 04                               | :32      | A Dissign Dissign | Part Contractor | and a second second second | Parta Parta Parta    | 1010 10 10 | the second se | tores tores | West States  | Stars Stars Street   |
|-----------------------------|------------------|--------------|--|----------|-------------------|-----------------|----------------------------|----------------------|------------|---|-------------|--|--|
|                             | Spike Amount     | LCS Result   | LCSD Result                                  | LCS Rec. | LCSD Rec.         | Rec. Limits     | LCS Qualifier              | LCSD Qualifier       | RPD        | RPD Limits  |             | 121112   | (2) (2) (3) (2) (3) (4)  |
| Analyte                     | mg/kg            | mg/kg        | mg/kg  | %        | %                 | %               | the state way              | and the second       | . %        | %   | W. Harris   | $= \frac{1}{1+1} \left[ \frac{1}{2} \left[ \frac{1}{$ | 1. State of the second     |
| TPH (GC/FID) Low Fraction   | 5.50             | 5.62         | 5.46   | 102      | 99.3              | 63.5-137        |                            |                      | 2.84       | 20  |             | en la secolation   |  |
| (S) a,a,a-Trifluorotoluene( | FID)             | Bang Pang    | n data serintaka per<br>Presidente periodika | 109      | 109               | 59.0-128        |                            | States States States | al ha      | North Have 19   |             | Stary ( Sary)  | A State of the sta |
| (S) a,a,a-Trifluorotoluene( | PID)             |              |  | 126      | 125               | 54.0-144        |                            |                      |            | 加速した日本  | , la galat, | Ad Cold So   |  |

QUALITY CONTROL SUMMARY

L859390-01

#### L859546-01 Original Sample (OS) · Matrix Spike (MS) · Matrix Spike Duplicate (MSD)

ACCOUNT:

| (OS) L859546-01 09/23/16   | 12:05 . (MS) R3       | 3165865-6 09             | /23/16 07:39 •   | (MSD) R316586       | 65-7 09/23/16                   | 08:03    |          | The second       |                             | Carl and Carlson | Charles and | and a second | and a firmer   |
|--|-----------------------|--------------------------|------------------|---------------------|---------------------------------|----------|----------|------------------|-----------------------------|------------------|-------------|--------------|----------------|
|  | Spike Amount<br>(dry) | Original Result<br>(dry) | MS Result (dry)  | MSD Result<br>(dry) | MS Rec.                         | MSD Rec. | Dilution | Rec. Limits      | MS Qualifier                | MSD Qualifier    | RPD         | RPD Limi     | its            |
| Analyte  | mg/kg                 | mg/kg                    | mg/kg            | mg/kg               | 8                               | *        | Tab and  | %                | and the first free          | an go an giri    | <b>%</b>    | %            |                |
| Benzene  | 0.0527                | U                        | 1.04             | 1.01                | 71.5                            | 69.7     | 27.5     | 49.7-127         |                             | 24 문화 문          | 2.48        | 23.5         |                |
| Toluene  | 0.0527                | 0.00894                  | 1.09             | 1.07                | 74.4                            | 73.0     | 27.5     | 49.8-132         |                             |                  | 1.87        | 23.5         | tha Digada     |
| Ethylbenzene   | 0.0527                | 0.00374                  | 1.26             | 1.24                | 86.8                            | 85.5     | 27.5     | 40.8-141         | lind out                    | 1211             | 1.48        | 23.8         |                |
| Total Xylene   | 0.158                 | 0.0881                   | 3.93             | 3.90                | 88.3                            | 87.6     | 27.5     | 41.2-140         |                             |                  | 0,770       | 23.7         | 영상 방법          |
| and a star of the second star of the second star second star second star second star second star second star s | A state of the        |                          | بالمشري فستعربون | ini Au              | all a straight and a straight a |          |          | وليترجب والتصريب | والمعاد المراجع فلتنقط والم | إيباد المرادات   |             | a naa laa    | تتبتيها ليليهم |

SDG:

PAGE:



Volatile Organic Compounds (GC) by Method 8015/8021

# QUALITY CONTROL SUMMARY

#### L859546-01 Original Sample (OS) · Matrix Spike (MS) · Matrix Spike Duplicate (MSD)

| ( | DS) L859546-01 09/23/16         | 6 12:05 + (MS) I      | R3165865-6 09                            | )/23/16 07:39 • | (MSD) R31658           | 365-7 09/23 | /16 08:03 |          | 111111      |              |  |          | ia Fra Fr  |       | 12  |
|---|---------------------------------|-----------------------|--|-----------------|------------------------|-------------|-----------|----------|-------------|--------------|--|----------|------------|-------|-----|
| - |                                 | Spike Amount<br>(dry) | Original Result<br>(dry)                 | MS Result (dry) | MSD Result<br>(dry)    | MS Rec.     | MSD Rec.  | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier  | RPD      | RPD Limits | 9 - E |     |
| A | nalyte                          | mg/kg                 | mg/kg                                    | mg/kg           | mg/kg                  | %           | %         |          | %           |              |  | %        | %          |       | ÷., |
|   | (S) a.a.a-Trifluorotoluene(FID) | 1                     | 2112                                     |                 |                        | 108         | 108       |          | 59.0-128    |              | 11111  |          |            | 1 - 1 |     |
|   | (S) a,a,a-Trifluorotoluene(PID) | Providence            | an a | The states      | tang tang<br>Tang tang | 113         | 113       |          | 54.0-144    |              | n e allo ser e allo ser e<br>e allo ser e allo s | ta anti- |            |       |     |

#### L859546-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

|    | (OS) L859546-01 09/23/16        | 12:05 · (MS) R        | 3165865-8 09   | /23/16 08:27 •  | (MSD) R31658        | 65-9 09/23/16 | 08:52    | 1994     | 14. 19. 14. 19 | 14 19 14 19 19 19 19 19 19 19 19 19 19 19 19 19  |                    | 96. 96.        | They are                                |
|----|---------------------------------|-----------------------|--|-----------------|---------------------|---------------|----------|----------|----------------|--|--------------------|----------------|---|
| j. |                                 | Spike Amount<br>(dry) | Original Result<br>(dry)   | MS Result (dry) | MSD Result<br>(dry) | MS Rec.       | MSD Rec. | Dilution | Rec. Limits    | MS Qualifier   | MSD Qualifier      | RPD            | RPD Limits                              |
|    | Analyte                         | mg/kg                 | mg/kg  | mg/kg           | mg/kg               | %             | %        |          | %              |  | 10741L             | %              | %                                       |
|    | TPH (GC/FID) Low Fraction       | 5.80                  | 16.1   | 112             | 117                 | 60.2          | .63.6    | 27.5     | 28.5-138       | The second second  | Seat Street Street | 4.62           | 23.6                                    |
| 1  | (S) a.a.a-Trifluorotoluene(FID) |                       |  |                 | initia ( 11. m.).   | 105           | 105      |          | 59.0-128       |  | 110111             |                |   |
| 10 | (S) a,a,a-Trifluorotoluene(PID) |                       | and the second s |                 |                     | 121           | 121      |          | 54.0-144       | Section of the sectio | ra strange (       | Constant State | 10 1 10 1 10 10 10 10 10 10 10 10 10 10 |

PROJECT:

SDG:



Semi-Volatile Organic Compounds (GC) by Method 8015

#### QUALITY CONTROL SUMMARY L859390-01

#### Method Blank (MB)

| (MB) R3163710-1 09/15/16 09:47 |
|--------------------------------|
|--------------------------------|

| (MB) R3163710-1 0      | 9/15/16 09:47 | 승규는 문제를 하는      | त्र सिंह स्टिन्स<br>स | 14 문제 문제 | 4.1944   | A state of the | 1 문화되었     | and from                                 | 1. 승규는 지 승규는                           | al fait f          | 4.194.197  | 2.182.18   | 4.574.5          | 138438                | 1.2.1.1                                   |
|------------------------|---------------|-----------------|-----------------------|----------|----------|----------------|------------|--|--|--------------------|--|--|------------------|-----------------------|---|
| The state of the state | MB Resu       | It MB Qualifier | MB MDL                | MB RDL   | enter de |                | 1.24 20.00 | 1. | 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1. | 1                  | the state of the s | the state of the s | the state of the | Terran and the second | 1. A. |
| Analyte                | mg/kg         |                 | mg/kg                 | mg/kg    |          |                | State:     | tal Pete                                 | 11211                                  | 1971 1983          |  |  | 112122           |                       |   |
| C10-C28 Diesel Range   | U. T          |                 | 1.61                  | 4.00     |          | 1              |            | 1  |  | and the difference | en len j   | e e a la ferencia da   |                  |                       |   |
| C28-C40 Oil Range      | U A           |                 | 0.274                 | 4.00     | 영국 관습    |                | 2011년 1    | 43343                                    | (fat de la                             | and the set        | 이는 아들의   | 1994년(19   |                  |                       | A Carton                                  |
| (S) o-Terphenyl        | 98.3          |                 |                       | 50.0-150 |          |                |            |  |  |                    |  |  |                  |                       |   |

#### Laboratory Control Sample (LCS) · Laboratory Control Sample Duplicate (LCSD)

| (LCS)  | R3163710-2 09/15/16  | 09:59 + (LCSD | ) R3163710-3 | 09/15/16 10:12 | 17 I H I H I H | 1111111   | 机合金管 法合任    | 김 태양은 동안은 것   | 1911277         | 172123            |            | Ľ. |
|--------|--|---------------|--------------|----------------|----------------|-----------|-------------|---------------|-----------------|-------------------|------------|----|
|        | and the second sec | Spike Amount  | LCS Result   | LCSD Result    | LCS Rec.       | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier  | RPD               | RPD Limits |    |
| Analyt | e  | mg/kg         | mg/kg        | mg/kg          | %              | %         | %           |               |                 | %                 | %          | 1  |
| C10-C2 | 8 Diesel Range   | 60.0          | 53.0         | 43.5           | 88.4           | 72.4      | 50.0-150    |               |                 | 19.9              | 20         |    |
| (5) 0  | -Terphenyl   | 1 4 4 1 4 4 1 |              | 1.111.111      | 98.7           | 90.2      | 50.0-150    | 1221220       | rulling ruling. | anta di ka a tang |            | ľ, |



## GLOSSARY OF TERMS

| Abbreviations and | d Definitions  |
|-------------------|--|
| SDG               | Sample Delivery Group.   |
| MDL               | Method Detection Limit.  |
| RDL               | Reported Detection Limit.  |
| ND                | Not detected at the Reporting Limit (or MDL where applicable).   |
| U                 | Not detected at the Reporting Limit (or MDL where applicable).   |
| RPD               | Relative Percent Difference.   |
| (dry)             | Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].   |
| Original Sample   | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.  |
| (S)               | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control<br>Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring<br>recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec.              | Recovery.  |

| Qualifier   | Description  |
|-------------|--|
| J           | The identification of the analyte is acceptable; the reported value is an estimate.              |
| J6          | The sample matrix interfered with the ability to make any accurate determination; spike value is |
| 슬픔 요즘 손님이다. | low.   |

ACCOUNT

## ACCREDITATIONS & LOCATIONS

Cr

<sup>2</sup>Tc <sup>3</sup>Ss <sup>4</sup>Cr <sup>5</sup>Sr <sup>6</sup>Qc

GI

Sc

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE. \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

#### State Accreditations

| Alabama                 | 40660          | Nevada           | TN-03-2002-34                                |
|-------------------------|----------------|------------------|--|
| Alaska                  | UST-080        | New Hampshire    | 2975   |
| Arizona                 | AZ0612         | New Jersey-NELAP | TN002  |
| Arkansas                | 88-0469        | New Mexico       | TN00003                                      |
| California              | 01157CA        | New York         | 11742  |
| Colorado                | TN00003        | North Carolina   | Env375                                       |
| Conneticut              | PH-0197        | North Carolina 1 | DW21704                                      |
| Florida                 | E87487         | North Carolina 2 | 41   |
| Georgia                 | NELAP          | North Dakota     | R-140  |
| Georgia <sup>1</sup>    | 923            | Ohio-VAP         | CL0069                                       |
| Idaho                   | TN00003        | Oklahoma         | 9915   |
| Illinois                | 200008         | Oregon           | TN200002                                     |
| Indiana                 | C-TN-01        | Pennsylvania     | 68-02979                                     |
| owa                     | 364            | Rhode Island     | 221  |
| Kansas                  | E-10277        | South Carolina   | 84004  |
| Kentucky !              | 90010          | South Dakota     | n/a  |
| Kentucky <sup>2</sup>   | 16             | Tennessee 14     | 2006   |
| Louisiana               | AI30792        | Texas            | T 104704245-07-TX                            |
| Maine                   | TN0002         | Texas 5          | LAB0152                                      |
| Maryland                | 324            | Utah             | 6157585858                                   |
| Massachusetts           | M-TN003        | Vermont          | VT2006                                       |
| Michigan                | 9958           | Virginia         | 109  |
| Minnesota               | 047-999-395    | Washington       | C1915  |
| Mississippi             | TN00003        | West Virginia    | 233  |
| Missouri                | 340            | Wisconsin        | 9980939910                                   |
| Montana                 | CERT0086       | Wyoming          | A2LA   |
| Nebraska                | NE-0S-15-05    |                  |  |
| Third Party & Federal A | Accreditations | 264216726        | 이 물건이 많이 |

| A2LA - ISO 17025  | 1461.01 |              |              | AIHA | 100789  |
|-------------------|---------|--------------|--------------|------|---------|
| A2LA - ISO 170255 | 1461.02 |              |              | DOD  | 1461.01 |
| Canada            | 1461.01 |              |              | USDA | S-67674 |
| EPA-Crypto        | TN00003 | 12 Q 12 3 CH | a second and |      |         |

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>49</sup> Accreditation not applicable

#### **Our Locations**

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



SDG:

## 1288

| and the second second  | Qu  | ote Number           |          | 34.<br>34.   |                               |                  | 1 7%         | And       | ilysis/  | Conto                                   | iner               | 1947<br>1947 | 1.1  | ab Information               |
|--|---|----------------------|----------|--|-------------------------------|------------------|--------------|-----------|----------|---|--------------------|--------------|--|------------------------------|
| NEA  | 1   |                      |          | in the second  | Page of                       |                  | -            | R.        | T        |   | 40                 |              |  | ALL REAL                     |
|  | - Laa   | O Contact            |          |  | (TO Contact Phor<br>いら 386 80 |                  | 100          | 14/1      |          |   | 1                  |              | 1 Alexandre  |                              |
| ENERGY   |   | S                    | Email    | Results t  | 10:                           | ALL ST.          |              |           | 1        | 1 and                                   |                    |              | 0  | ffice Abbreviations          |
| Western Division   |   | Jane                 | s, Log   | an, 1  | curt, Ref                     |                  | 2            |           | E        | 1. int                                  |                    |              | Farm   | nington = FAR                |
| PO Dipkin 6E   | A   | PI Number            |          | Sa   | turday Delivery (             | YIN)             | meo          | S-Freedow | ALL ALL  | J.                                      |                    |              |  | ango = DUR<br>ken = BAK      |
| Collected By   | Sa  | nples on Ice         | . A      | fv   | Turnaround                    | and and and      | 620.         |           |          |   | and wanted         | a la de      | a manager  | on = RAT                     |
| Company  |   | (Y) N)<br>est Reason |          |  | andard<br>ext Day             | د د الار         | 9            | IN        | 5        | and the second                          | No. of Contraction | . Juitt      | and the second s | evelt = RSV                  |
| VTO  |   | losvic               | 11年9月    | Tu   | vo Day                        |                  | 020          | IS        | al.      |   | - 39               | and and the  |  | large = LB<br>ngeville = OV  |
| lignature  |   | and the distance of  |          | And a second sec | iree Day<br>ime Day           | ير.<br>۲۰. بر ۲۰ | 0            | 5         | .5       |   |                    |              | ora  | . (ide                       |
| 709 6  | Gray Area   | s for Lab Us         | e Only!  | Date No  | eded                          | L No. of         | 8015(        | N         | -        |   |                    | 1            | -  | 8597p                        |
| Sample ID  | Sample Name   | Media                | Date     | Time   | Preservative                  | No. of<br>Conts. | 8            | 208       | ゴ        | 1.<br>1.                                |                    |              |  | Sample Number                |
| AULIF-096316-850   | BOT COMPOSIT  | e Sin                | 9/43     | 830  | Cool                          | 1-402            | X            | X         | $\times$ | _                                       | 4                  | 4            |  | G074                         |
|  | an anna an  | A State              |          |  | 10 mil 200                    | A ARCHITE        |              |           | -        |   |                    | va finishti  |  |                              |
| - line of the  |   | and the second       |          |  |                               |                  |              |           |          | ALL |                    | 121 109 104  |  |                              |
| The second second  |   |                      |          |  |                               |                  | $\mathbf{T}$ |           |          |   |                    |              |  |                              |
| and the second sec |   |                      | -        |  |                               | 1                | e chi        |           | · 信      |   |                    | 100          | 8. A. S.   |                              |
| a gange  | ar .<br>Eine  |                      |          |  | A.S.                          | Sector Alexandre | -            |           |          | _                                       | 1                  |              |  | and the second second        |
|  | 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - | -                    |          |  |                               |                  | 1997         |           | _        | -                                       |                    | -            |  | 1. De mersten die er die ste |
| A Repair of the  |   |                      |          |  | 1                             |                  | - And -      |           |          |   |                    | -            | -  |                              |
|  | <u>A </u>   | A Contestion         |          | 1.1.4  |                               | 1.000            | -            |           | 38.3     |   |                    | -            |  |                              |
|  |   |                      | Sined I. | -  |                               |                  | diane-       | 100       | 1957 B   | -                                       |                    | 87<br>67 255 | 14<br>50   |                              |
|  | R.C. M.   |                      |          |  |                               |                  | -            |           |          |   |                    |              | 9  |                              |
| edia : Filter = F Soil = S Wastewate   | WE WILL Commenter   |                      |          |  |                               |                  | E cut        | Air =     | A . D-   | III More                                |                    | Othe         | r = OT   |                              |
| linguished By: (Signature)   | a - ww. Groundwa  | 701                  | inking W |  | V Sludge = SG Su              |                  | WC-1         | AIT =     | A DI     | Chart Land Tak                          | OHIT .             |              | lottles  | Sample Condition             |
| Jog (Signature)  |   | Date:<br>91131       | 11       | Time:  | Received By: (Si              | mature)          | 豪牧           | 2         |          |   | ampe               |              | ornes  | Pumple condition             |
| linguished By: (Signature)   |   | Date:                | 16       | Time:  |                               |                  |              |           |          | Te                                      | emper              |              |  |                              |
| linquished By: (Signature)   | WASA  |                      | -        | -  |                               |                  |              |           |          | -                                       |                    | 13.          |  | Other Information            |
| mideninge pår (signature)  | adderst (   | Date:                |          | Time   | Received for Lai              | neilin           |              |           |          | De                                      | ate:<br>-[4-((     | III          | ne:  | 1 cr                         |

-

\* Sample ID will be the office and sampler-date-military time FARJM-MMDDYY-1200





YOUR LAB OF CHOICE

|   | Cooler Receipt F  | orm                      |   |         |        |
|---|---|--------------------------|---|---------|--------|
| Client:   | XTORNIM   | SDG#                     | 850   | 1340    | ÷.     |
| Cooler Received/Opened On: G-(4   | Ч-16 т  | emperature Upon Receipt: | 13.4  | °c      |        |
| Received By: Richer, Mosley<br>Signature: Richer Mosley                     |   |                          | ME - y SA                                   |         |        |
| <i>v</i>  | Receipt Check List  |                          | Yes   | No      | N/A    |
| Were custody seals on outside of co   | oler and intact?  |                          |   |         | V      |
| Were custody papers properly filled   | out?  |                          | V   |         | 19. 1  |
| Did all bottles arrive in good condition                                    | on?   |                          | V   |         |        |
| Were correct bottles used for the an  | alyses requested?   |                          | J   |         | 1.1    |
| Was sufficient amount of sample ser   | nt in each bottle?  |                          | $\checkmark$                                | -       |        |
| Were all applicable sample containe<br>checked for preservation? (Any not i | and the second finance in the second s | COC)                     |   | 1.21.20 | V      |
| If applicable, was an observable VOA  | A headspace present?  |                          | 6.q   |         | i/     |
| Non Conformance Generated. (If yes  | s see attached NCF)   |                          | ALL AND | THE R   | No. 10 |



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## Well Below Grade Tank Inspection

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Pagel, of T

| s. | DEN NM Run 63                 | PIPKIN PO 006E | Ward, Gary Sanders, David              | PO PIPKIN OBE       | 3004525636 | 18                           | 10W  | 27N      | Sand State Landa                   | 12-14-1-1-1         |      |
|----|-------------------------------|----------------|--|---------------------|------------|------------------------------|------|----------|------------------------------------|---------------------|------|
|    |                               |                | And the second second                  |                     |            |                              | 1111 |          | Service States                     | 1.1.1.1.1.1.1.1.1.1 | ji - |
|    | Inspector Name                | Record Date    | Inspection Visible Liner<br>Time Tears | Visible Liner Tears |            | Collection Of<br>Surface Run |      |          | Freeboard Pit Location P<br>Est FT | it Type Notes       | 1    |
| -  | LDR                           | 8/9/2008       | 247:00 No                              | No                  | No         | Yes                          | Yes  | No       | S                                  | 11 - 14 E - 17      | - 1  |
| -  | LDR                           | 6/1/2011       | 10:45 No -                             | - Dend sidd a       | No         | No                           |      | Mar      | 4 Well Water Pit B                 | Selow               | 8.7  |
|    | 곳에 나는 것이 없는 것이 가 있는 것이 같이 나라. |                |  | State Seat 1        |            | ten.                         |      | a factor | 0                                  | Iround              | 1    |
|    | GW                            | 6/3/2014       | 10:07 No                               | No                  | No         | No                           | Yes  | No       | A                                  | Selow .             | 11   |

| a 🕈 Shi yang si Shi | 그는 것이 같아요. 이 것 수 있는 것이 같아요. 이 이렇게 하는 것을 같아요. 한 것이 없는 것이 없다. 것이 없는 것이 없 않는 것이 없는 것이 않는 것이 않는 것이 없는 것이 않는 것이 않는 것이 없는 것이 없는 것이 않는 것이 않는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없는 것이 않는 것 않<br>것이 않는 것이 않이 않이 않이 않이 않이 않는 것이 않이 |
|---------------------|---|
| From:               | Hixoni, Logan   |
| To:                 | "Smith, Cory, EMNRD"; Katherina Diemer (kdiemer@blm.gov); Fields, Vanessa, EMNRD  |
| Cc:                 | McDaniel, James (James McDaniel@xtoenergy.com); Hoekstra, Kurt; Farnsworth, Rex   |
|                     | (Rex Farnsworth@xtoenergy.com); Clement, Jeff (Jeff Clement@xtoenergy.com); Weaver, John  |
| A DECEMBER OF T     | (John Weaver@xtoenergy.com); Trutillo, Marcos (Marcos Trutillo@xtoenergy.com); Sanders, David   |
| 이 문제에 가다            | (David Sanders@xtoenergy.com)   |
| Subject:            | RE: 2016-9-1, 72 Hour BGT Closure Notification, 2016/9/2-2016/9/9, PO Pipkin 6E (API: 30-045-25636)   |
| Date:               | Monday, September 12, 2016 2:34:00 PM   |

### Good Afternoon,

Due to the activities on site we have tentatively rescheduled to begin closure activities for this site on Tuesday September 13, 2016 at approximately 0800.

Thank you and have a good afternoon!

If you have any questions do not hesitate to contact us.

Thank You! EHS/OIMS Coordinator Logan Hixon | 382 CR 3100 | Aztec, NM 87410 | ph: 505-333-3100 |Cell: 505-386 8018 | Home: 505-320-6133 | Logan\_Hixon@xtoenergy.com XTO ENERGY INC., an ExxonMobil subsidiary

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From: Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us] Sent: Wednesday, September 07, 2016 7:26 AM To: Hixon, Logan Subject: RE: 2016-9-1, 72 Hour BGT Closure Notification, 2016/9/2-2016/9/9, PO Pipkin 6E (API: 30-045-25636)

Logan,

Thanks for the update, Di you have an estimated time frame for the BGT closure?

From: Hixon, Logan [mailto:Logan\_Hixon@xtoenergy.com]
Sent: Tuesday, September 06, 2016 12:16 PM
To: Smith, Cory, EMNRD; Katherina Diemer (kdiemer@blm.gov)
Cc: McDaniel, James; Hoekstra, Kurt; Farnsworth, Rex; Clement, Jeff; Trujillo, Marcos; Weaver, John; Sanders, David
Subject: Re: 2016-9-1, 72 Hour BGT Closure Notification, 2016/9/2-2016/9/9, PO Pipkin 6E (API: 30-045-25636)

Good Afternoon,

Due to P&A activities on site the scheduled time and date has been delayed for this site, but will still be initiated within the time frame of 7 days of the initial notification.

Thank you and have a great day!

If you have any questions or concerns do not hesitate to contact me at anytime. Thank you and have a good day!

#### Thank You!

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XTO ENERGY INC., an ExxonMobil subsidiary

Logan Hixon | <u>72 Suttle Street</u>, Suite J |<u>Durango, CO 81303</u> | ph: <u>970-247-7708</u> | Cell: <u>505-386-8018</u> Logan Hixon | 382 CR 3100 | <u>Aztec, NM 87410</u> | ph: <u>505-333-3100</u> |<u>Logan\_Hixon@xtoenergy.com</u>

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On Sep 1, 2016, at 06:18, Hixon, Logan <Logan\_Hixon@xtoenergy.com> wrote:

Mr. Smith & Mrs. Diemer,

Please accept this email as the required 72 hour notification for BGT closure activities at the following site:

-PO Pipkin 6E (API 30-045-25636) located in Section 18B, Township 27N, Range 10W, San Juan County, New Mexico.

This BGT is being closed due to plugging and abandoning of this well site.

The closure plan was approved on July 28, 2015.

Work is tentatively scheduled for Tuesday September 6, 2016 at approximately 1300 MST.

If there is any unforeseen delays in closure activities with this BGT and it will not be initiated within a week's time (September 10, 2016), a follow up email notification will be made for the change.

Thank you and have a good day

If you have any questions do not hesitate to contact us.

Thank You!

#### EHS/OIMS Coordinator Logan Hixon | 382 CR 3100 | Aztec, NM 87410 | ph: 505-333-3100 |Cell: 505-386 8018 | Home: 505-320-6133 | Logan\_Hixon@xtoenergy.com XTO ENERGY INC., an ExxonMobil subsidiary

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## XTO Energy Inc. San Juan Basin Below Grade Tank Variance Page

In accordance with Rule 19.15.17.15 NMAC, the following outlines all variances that are being requested for below grade tanks at XTO facilities. All variances requested provide equal or better protection of fresh water, public health and the environment.

#### **Closure Requirements**

XTO requests a variance on rule 19.15.17.13.C(3)(a) NMAC which requires operators to analyze closure samples for the constituents listed in Table I of 19.15.17.13 NMAC. XTO instead requests to replace the USEPA analytical method 300.0 for total chloride to USEPA Method 9056. The SW846 9056 method Determination of Inorganic Anions By Ion Chromatography, from *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, which also contains methods for the analysis of groundwater, is customarily used to comply with RCRA regulations. EPA Method 300.0 Determination of Inorganic Anions by Ion Chromatography is taken from *Methods for Chemical Analysis of Waters and Wastes*, and includes test procedures that are approved for monitoring under the Safe Drinking Water Act (SDWA) and the National Pollutant Discharge Elimination System (NPDES). The Scope of Application for each method is the same, and both methods utilize ion chromatograph instrumentation. Following either procedure, steps for instrument calibration and data calculation are equivalent. Sample preservation, holding time, handling and storage is identical between the two methods. It is expected that data produced from either method should be consistent.

XTO Energy is requesting this variance on the grounds that USEPA Method 418.1 is an outdated analytical method that reports a full range of hydrocarbons from  $C_8$  through  $C_{40}$ . (*Reference: American Petroleum Institute*). This range of hydrocarbons is above the range that can reasonably be expected to be found in our field in both drilling pits and beneath below grade tanks. USEPA Method 8015M (GRO/DRO + extended analysis) will report hydrocarbons ranging from  $C_6-C_{10}$  for GRO,  $C_{10}-C_{28}$  for DRO, and  $C_{28}-C_{36}$  for extended analysis. This information was provided by Environmental Science Corporation Laboratories. As the information demonstrates, the 8015M analytical method reports as low as  $C_6$ , reporting lower than USEPA Method 418.1. Utilizing analytical method 8015M, lighter range hydrocarbons will be reported instead of higher range, heavy hydrocarbons that may not be reasonably expected to be found in our field. Utilization of USEPA Method 8015M will better protect groundwater resources by identifying lighter, more mobile hydrocarbons that USEPA Method 418.1 cannot identify. The heavier range hydrocarbons,  $C_{36}-C_{40}$ , that are not identified by USEPA Method 8015M are not a mobile form of hydrocarbon, and are not a threat to human health and the environment.

XTO requests a variance on rule 19.15.17.13.E(2) requiring that operators notify the appropriate division office verbally AND in writing at least 72 hours prior to any closure operation. XTO instead requests that the verbal notification be waived, as suggested by the local division office. XTO will provide written notification to the division office in the form of an email at least 72 hours prior to beginning closure activities.

XTO Energy, Inc. PO Pipkin 6E (30-045-25636) Section 18(B), Township 27N, Range 10W Closure Date: October 7, 2016

5 7

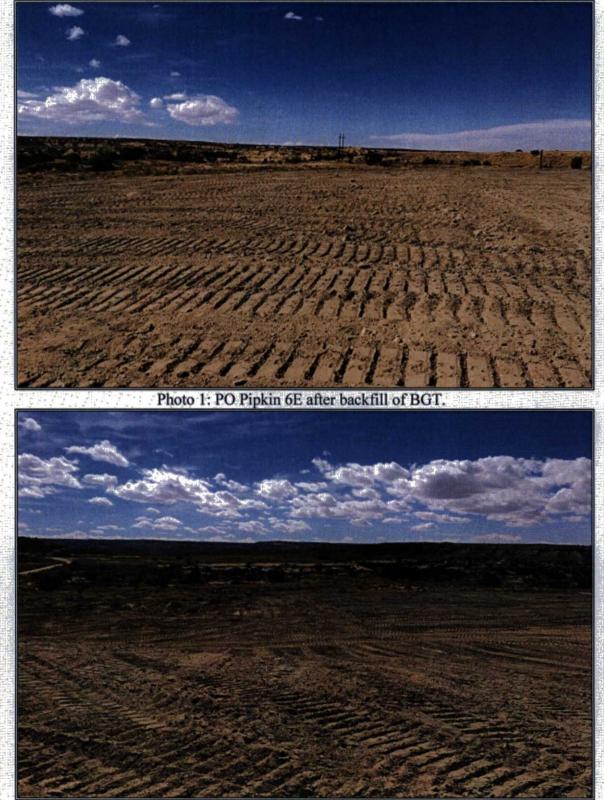


Photo 2: PO Pipkin 6E after backfill of BGT.

XTO Energy, Inc. PO Pipkin 6E (30-045-25636) Section 18(B), Township 27N, Range 10W Closure Date: October 7, 2016

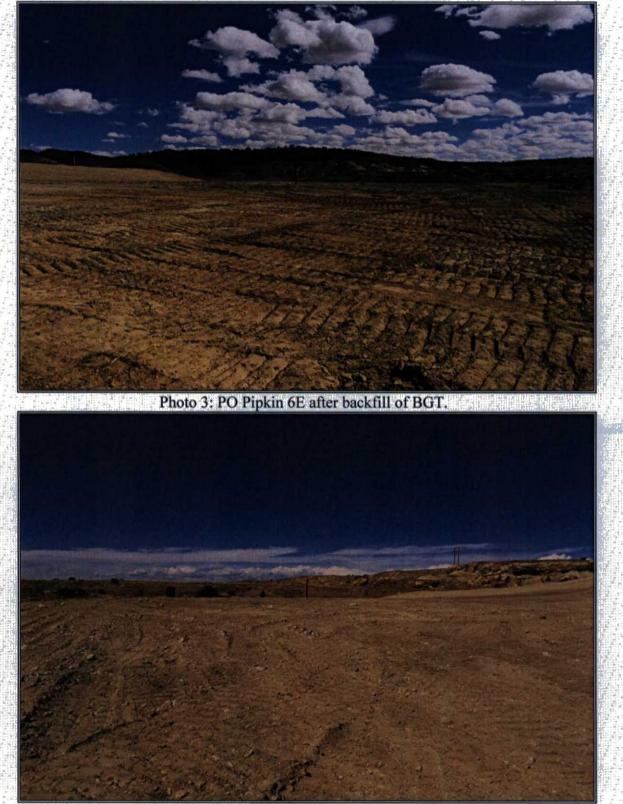


Photo 4: PO Pipkin 6E after backfill of BGT.

| District I  | State of New Mexico   | Form C-144<br>July 21, 2008  |
|---|---|--|
| and the second se   | Energy Minerals and Natural Resources   | For temporary pits, closed-loop systems, and   |
| 1301 W. Grand Avenue, Artesia, NM 88210   | Department  | below-grade tanks submit to the appropriate  |
| District III<br>1000 Rio Brazos Road, Aztec, NM 87410   | Oil Conservation Division   | NMOCD District Office.<br>For permanent program exceptions submit to<br>the Santa Pe Environmental Bureau office and |
| District IV<br>1220 S. St. Francis Dr., Santa Fc, NM 87505  |   | the Santh Pf Environmental Bureau office and<br>provide a copy to the appropriate NMOCD                              |
|   | Santa Fe, NM 87505  | District Office. 1 53  |
| Die Olaa  |   | and the second     |
| A CONTRACT OF A | ed-Loop System, Below-Grade T   |  |
| Proposed Alterna  | tive Method Permit or Closure Pl  | lan Application  |
|   | pit, closed-loop system, below-grade tank, or   |  |
|   | a pit, closed-loop system, below-grade tank, o<br>on to an existing permit  | r proposed alternative method  |
|   | an only submitted for an existing permitted or  | non-permitted pit, closed-loop system,   |
| below-grade tank, or proposed a   |   |  |
| Instructions: Please submit one application   | (Form C-144) per individual pit, closed-loop system   | n, below-grade tank or alternative request   |
| Please be advised that approval of this request does not reli   |   |  |
| environment. Nor does approval relieve the operator of its  | responsibility to comply with any other applicable gov  |  |
| Operator: XTO Energy, Inc.  | OGRID #:  | 5380 OIL CONS. DIV DIST. 3<br>OCT 2 0 2016   |
| Address: #382 County Road 3100, Aztec, NM 8   |   | CONS. DIV P  |
| Facility or well name: Pipkin PO #6E  |   | DCT - DIST. 3  |
| E data de la companya   | OCD Permit Number:  | 2 0 2016   |
| U/L or Qtr/Qtr B Section 18 1   |   | nty: San Juan  |
| Center of Proposed Design: Latitude 36.623018   |   | NAD: 1927 🛛 1983   |
| Surface Owner: Seleral State Private Tri  | the second second and the second the second s | and a set of the set of the set of the set of the  |
|   |   | ·····································  |
| Pit: Subsection F or G of 19.15.17.11 NMAC  |   |  |
| Temporary: Drilling Workover  | a second state of the second secon   |  |
| Permanent Emergency Cavitation P&A  | an interest ( Special Diff. og a Series and anderes a   | binding and an and a second      |
| Lined Unlined Liner type: Thickness   |   |  |
| String-Reinforced   |   |  |
| Liner Seams: Welded Factory Other   | Volume: bbl   | Dimensions: L x W x D  |
|   |   |  |
| Closed-loop System: Subsection H of 19.15.17.   | INMAC   |  |
| Type of Operation: P&A Drilling a new well  |   | th require prior approval of a permit or notice of   |
| intent)   |   | and a second       |
| Drying Pad Above Ground Steel Tanks   |   |  |
| Lined Unlined Liner type: Thickness   | mil 🔄 LLDPE 📑 HDPE 🗖 PVC 🔲  | Other  |
| Liner Seams: Welded Factory Other   | Det See   |  |
| <b>1</b> <i>5</i>   |   |  |
| Below-grade tank: Subsection I of 19.15.17.11   | NMAC  |  |
| Volume: 120 bbl Type of fluid:  | Produced Water  |  |
| Tank Construction material: Steel   | and the state of the   |  |
| Secondary containment with leak detection   | isible sidewalls, liner, 6-inch lift and automatic over   | rflow shut-off   |
| Visible sidewalls and liner Visible sidewalls   | only Other Visible sidewalls, vaulted, autom  | atic high-level shut off, no liner   |
|   | HDPE PVC Other  |  |
|   |   |  |
| Alternative Method:   | 그가 말 이 같은 소리가 생각  |  |
| Submittal of an exception request is required. Except   | ions must be submitted to the Santa Fe Environmen   | tal Bureau office for consideration of approval.   |
|   |   |  |
| 2 2 11년 2월 28일 - 11월 21일 - 11일 21일 - 11일 21일 - 11일 21일 21일 - 11일 21일 21일 21일 21일 21일 21일 21일 21일 21일  | 이 방법에 주관할 것 같아요. 이 것 같아요. 이 것 같아요. 아  | 이상 소리를 들어나 지지한 것이를 물건하는 한다른 것이 들었다.  |

| 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 institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet Alternate. Please specify Four foot height, steel mesh field fence (hogwire) with pipe top railing  | t Koipital.        |
|--|--------------------|
| Netting:       Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)         Screen       Netting Ø Other Expanded metal or solid vaulted top         Monthly inspections (If netting or screening is not physically feasible)   |                    |
| Signs: Subsection C of 19.15.17.11 NMAC<br>12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers<br>Signed in compliance with 19.15.3.103 NMAC   |                    |
| Administrative Approvals and Exceptions:<br>Justifications and/or demonstrations of equivalency are required. Please refer to 19,15,17 NMAC for guidance.<br>Please check a box if one or more of the following is requested, if not leave blank:<br>Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Burea<br>consideration of approval.<br>Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.  | ar office for      |
| in<br><u>Siting Criteria (regarding permitting)</u> : 19:15.17.10 NMAC<br>Instructions: The applicant must demonstrate compliance for each string criteria below in the application. Recommendations of acc<br>material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the app<br>office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of<br>Applicant must attach justification for request. Please refer to 19:15.17.10 NMAC for guidance. Siting criteria does not apply to de<br>above-grade tanks associated with a closed-loop system. | ropriate district  |
| Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.<br>- 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).<br>- Topographic map; Visual inspection (certification) of the proposed site   | C Ye 🛛 No          |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>(Applies to temporary, emergency, or cavitation pits and below-grade tanks)<br>Visual Inspection (certification) of the proposed site; Aerial photo; Satellite image  | E Yes 🕅 No<br>E 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)   |                    |
| <ul> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> <li>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.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>  | 💽 Yes 🗵 No         |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance<br>adopted pursuant to NMSA 1978, Section 3-27-3, as amended.<br>Written confirmation or verification from the municipality; Written approval obtained from the municipality   | 🖸 Yes 🖾 No         |
| Within 500 feet of a wetland.<br>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site  |                    |
| Within the area overlying a subsurface mine.<br>Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division  |                    |
| written confirmation of vertification of map from the PAN-EMINAC-Withing and Mineral Division  | Yes No             |
| Within an unstable area.<br>Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological<br>Society; Topographic map   | C. INC. IN         |

| nstructions: Each of the   | ncy Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.13.17.9NMAC<br>following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are  |  |  |
|--|--|--|--|
| attached.<br>A Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC<br>Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9<br>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC<br>Design Plan - based upon the appropriate requirements of 19.15.17.10 NMAC<br>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC<br>Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19<br>and 19.15.17.13 NMAC |  |  |  |
|  | Design (attach copy of design) API Number: or Permit Number:   |  |  |
|  | mit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC<br>following items must be attached to the application. Please indicate, by a check mark in the box; that the documents are  |  |  |
| Geologic and Hydry<br>Siting Criteria Com<br>Design Plan - based<br>Operating and Mair<br>Closure Plan (Pleas<br>and 19.15.17.13 NMAC  | ogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9<br>pliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC<br>upon the appropriate requirements of 19.15.17.11 NMAC<br>itenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC<br>e complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NM   |  |  |
| 立ちにもの思想な日本な  | Design (attach copy of design) API Number:   |  |  |
|  | Operating and Maintenance Plan AP1 Number: (Applies only to closed-loop system that use<br>or haul-off bins and propose to implement waste removal for closure)  |  |  |
|  | r nauroj ous ana propose la implement waste removal jor closurer   |  |  |
|  | spilication Checklist: Subsection B of 19.15.17.9 NMAC<br>following items must be attached to the application. Please indicate, by a check mark in the box; that the documents are   |  |  |
| <ul> <li>Siting Criteria Com</li> <li>Climatological Fact</li> <li>Certified Engineerii</li> <li>Dike Protection and</li> <li>Leak Detection Des</li> <li>Liner Specification</li> <li>Quality Control/Qu</li> <li>Operating and Mair</li> <li>Freeboard and Over</li> <li>Nuisance or Hazard</li> <li>Emergency Respon</li> <li>Oil Field Waste Str</li> <li>Monitoring and Ins</li> <li>Erosion Control Place</li> </ul>   | ng Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC<br>I Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC<br>sign - based upon the appropriate requirements of 19.15.17.11 NMAC<br>and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC<br>ality Assurance Construction and Installation Plan<br>itenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC<br>topping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC<br>ious Odors, including H <sub>2</sub> S, Prevention Plan<br>se Plan<br>eam Characterization<br>pection Plan |  |  |
|  |  |  |  |
| roposed Closure: 19.15   | 17.13 NMAC<br>plete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.  |  |  |
| Alternative  | <ul> <li>arkover is Emergency is Cavitation is P&amp;A is Permanent Pit is Below-grade Tank is Closed-loop System</li> <li>Waste Excavation and Removal</li> <li>Waste Removal. (Closed-loop systems only)</li> <li>On-site Closure Method (Only for temporary pits and closed-loop systems)</li> <li>In-place Burial is On-site Trench Burial</li> <li>Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)</li> </ul>  |  |  |
| Vaste Excavation and P   | emoval Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the  |  |  |
| Iosure plan. Please indi<br>Protocols and Proce<br>Confirmation Samp<br>Disposal Facility N<br>Soil Backfill and C   | cate, by a check mark in the box, that the documents are attached.<br>sources - based upon the appropriate requirements of 19.15.17.13 NMAC<br>ling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC<br>ame and Permit Number (for liquids, drilling fluids and drill cuttings)<br>over Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC<br>- based upon the appropriate requirements of Subsection 1 of 19.15.17.13 NMAC   |  |  |

|   | Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13<br>usal of liquids, drilling fluids and drill cuttings. Use attachment (   |  |  |  |
|---|---|--|--|--|
| nellittes are required.   |   |  |  |  |
| Disposal Facility Name: Disposal Facility Permit Number: Disposal Facility Permit Number: Disposal Facility Permit Number:  |   | a stadient in the second second second |  |  |
| Disposal Facility Name:   |   |  |  |  |
| equired for impacted areas which will not be used for future serve<br>Soil Backfill and Cover Design Specifications based upon<br>Re-vegetation Plan - based upon the appropriate requiremen<br>Site Reclamation Plan - based upon the appropriate requiremen   | n the appropriate requirements of Subsection H of 19.15.17.13 NM<br>ts of Subsection I of 19.15.17.13 NMAC  | ĄĊ                                     |  |  |
| ravided below. Requests regarding changes to certain siting crit  | mpliance in the closure plan. Recommendations of acceptable so<br>teria may require administrative approval from the appropriate di<br>e Environmental Bureau office for consideration of approval. Ju  | strict office or may                   |  |  |
| round water is less than 50 feet below the bottom of the buried w<br>NM Office of the State Engineer - iWATERS database sea   |   |  |  |  |
| round water is between 50 and 100 feet below the bottom of the l<br>NM Office of the State Engineer - iWATERS database sea  | rch; USGS; Data obtained from nearby wells  |  |  |  |
| hound water is more than 100 feet below the bottom of the buried<br>NM Office of the State Engineer - iWATERS database sea  | rch; USGS; Data obtained from nearby wells  |  |  |  |
| Vithin 300 feet of a continuously flowing watercourse, or 200 feet<br>ike (measured from the ordinary high-water mark).<br>Topographic map; Visual inspection (certification) of the p  | of any other significant watercourse or lakebed, sinkhole, or playa<br>proposed site  | Yes No                                 |  |  |
| Vithin 300 feet from a permanent residence, school, hospital, insti<br>- Visual inspection (certification) of the proposed site; Aeria  |   |  |  |  |
| Vithin 500 horizontal feet of a private, domestic fresh water well o<br>ratering purposes, or within 1000 horizontal feet of any other fresh<br>- NM Office of the State Engineer - iWATERS database; Vi  | h water well or spring, in existence at the time of initial application.  |  |  |  |
| Vithin incorporated municipal boundaries or within a defined mun<br>dopted pursuant to NMSA 1978, Section 3-27-3, as amended.<br>Written confirmation or verification from the municipality,  | icipal fresh water well field covered under a municipal ordinance .<br>Written approval obtained from the municipality  | Yes 🖸 No                               |  |  |
| Vithin 500 feet of a wetland.<br>US Fish and Wildlife Wetland Identification map; Topogra   | aphic map; Visual inspection (certification) of the proposed site   |  |  |  |
| Vithin the area overlying a subsurface mine.<br>- Written confirmation or verification or map from the NM I   | EMNRD-Mining and Mineral Division   |  |  |  |
| Vithin an unstable area.<br>- Engineering measures incorporated into the design; NM B<br>Society; Topographic map   | ureau of Geology & Mineral Resources; USGS; NM Geological   |  |  |  |
| Vithin a 100-year floodplain.<br>FEMA map   |   |  |  |  |
| y a check mark in the box, that the documents are attached.           Siting Criteria Compliance Demonstrations - based upon the           Proof of Surface Owner Notice - based upon the appropriate           Construction/Design Plan of Burial Trench (if applicable) b           Construction/Design Plan of Temporary Pit (for in-place but           Protocols and Procedures - based upon the appropriate requi           Confirmation Sampling Plan (if applicable) - based upon the           Waste Material Sampling Plan - based upon the appropriate | e requirements of Subsection F of 19.15.17.13 NMAC<br>ased upon the appropriate requirements of 19.15.17.11 NMAC<br>rial of a drying pad) - based upon the appropriate requirements of 1<br>irements of 19.15.17.13 NMAC<br>e appropriate requirements of Subsection F of 19.15.17.13 NMAC<br>requirements of Subsection F of 19.15.17.13 NMAC<br>lling fluids and drill cuttings or in case on-site closure standards can<br>ts of Subsection H of 19.15.17.13 NMAC<br>its of Subsection I of 19.15.17.13 NMAC | 9.15.17.11 NMAC                        |  |  |

| Deerator Apolication Certification:<br>I hereby certify that the information submitted with this applica  | tion is true, securate and complete to the best of my knowledge and belief.  |
|---|--|
| Name (Print):Kim Champlin   | TitlesEnvironmental Representative   |
| Signature: Kim Champlin   | Dute: 11/14/2008   |
| e-mail address: kim_champlin@xtoenergy.com  | Telephone: (505) 333-3100  |
| The second | n) Slosure Plan (only) OCD Conditions (see attachment)   |
| OCD Representative Signature:   | Approval Date: 07/28/15  |
| Titles Environmental Engineer   | OCD Permit Number;   |
| 1.<br><u>Closure Report (required within 60 days of closure complet</u><br><i>Instructions: Operators are required to obtain an approved cl</i><br><i>The closure report is required to be submitted to the division w</i><br>section of the form until an approved closure plan has been of  | osure plan prior to implementing any closure activities and submitting the closure report.<br>Athin 60 days of the completion of the closure activities. Please do not complete this<br>Mained and the closure activities have been completed. |
| 7.4   | Closure Completion Dates OCtober 7, 2016   |
| IL         Closure Method:         Image: State Excavation and Removal         Image: State Excavation and Removal <td>hod 🔲 Alternative Closure Method 🗌 Waste Removal (Closed-loop systems only)</td>   | hod 🔲 Alternative Closure Method 🗌 Waste Removal (Closed-loop systems only)  |
| 2.<br><u>Closure Report Reparding Wasts Removal Closure For Clo</u><br><i>Instructions: Please indentify the facility or facilities for when</i><br><i>two facilities were utilized.</i><br>Disposal Facility Name:   | eed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Blas Only:<br>re the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than<br>Disposal Facility Permit Number:                             |
| Disposal Facility Name:   | Disposal Facility Permit Number:   |
| Were the closed-loop system operations and associated activitie<br>Yes (If yes, please demonstrate compliance to the items to   | s performed on or in areas that will not be used for future service and operations?<br>below) 🔲 No   |
| Required for impacted areas which will not be used for future s         Site Reclamation (Photo Documentation)         Soil Backfilling and Cover Installation         Re-vegetation Application Rates and Seeding Technique  |  |
| A.<br>Closure Report Attachment Checklini: Instructions: Each of<br>mark in the bax, that the documents are attached.<br>Proof of Closure Notice (surface owner and division)<br>Proof of Deed Notice (required for on-site closure)<br>Plot Plan (for on-site closures and temporary pits)   | of the following items must be ettached to the closure report, Please builtents, by a check  |
| Confirmation Sampling Analytical Results (If applicable<br>Waste Material Sampling Analytical Results (required fo<br>Disposal Facility Name and Permit Number<br>Soil Backfilling and Cover Installation   | ren-site closure) (  |
| Re-vegetation Application Rates and Seeding Technique     Site Reclamation (Photo Documentation)     On-site Closure Location: Latitude   | Longitude  |
| B 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<br>the closure requirements and conditions specified in the approved closure plan.   |
| Name (Print): Logan Hixon   | Title: EHS coordinator   |
| Signature due   | Date: 10-10-2016   |
| email address: LOSCO - Hixon @LTOE  |  |
|   |  |

Form C-144

**Oil Conservation Division** 

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