

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

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

## NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141

Revised August 8, 2011

OCT 08 2014

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

RECEIVED

## Release Notification and Corrective Action

NAB1428133861

## OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 2100737 Contact: Tony Savoie  
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220 Telephone No. 575-887-7329  
Facility Name: North Indian Flats 26 Federal #1 Facility Type: Exploration and Production

Surface Owner: Federal Mineral Owner: Federal API No. 30-015-27556

## LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	26	21S	28E	2150	North	1980	East	Eddy

Latitude N 32.452537 Longitude W 104.054648

## NATURE OF RELEASE

Type of Release: Crude oil and Produced water	Volume of Release: 2 bbls crude oil and 8 bbls produced water	Volume Recovered: 1 bbl crude oil and 4 bbls produced water
Source of Release: Flange gasket on water transfer pump.	Date and Hour of Occurrence: 9/24/14 time unknown	Date and Hour of Discovery: 9/24/14 at approximately 2:20 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? M. Bratcher, H. Patterson and Jim Amos	
By Whom? Tony Savoie	Date and Hour: 9/24/14 at 2:46 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* A flange gasket failed on the water transfer pump. The flange gasket was replaced.

Describe Area Affected and Cleanup Action Taken.\* The spill affected approximately 450 sq. ft. of earthen containment berm around the water storage tank. The spill area will be remediated following the NMOCD and BLM guidelines for spills and releases.

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

## OIL CONSERVATION DIVISION

Signature: Tony Savoie

Printed Name: Tony Savoie

Title: Waste Management and Remediation Specialist

E-mail Address: tasavoie@basspet.com

Date: 10/7/14

Phone: 432-556-8730

Approved by Environmental Specialist

Approval Date: 10/8/14Expiration Date: N/A

Conditions of Approval:

Attached ☐

Remediation per O.C.D. Rules &amp; Guidelines

SUBMIT REMEDIATION PROPOSAL NO

ATER THAN: 11/8/14

\* Attach Additional Sheets If Necessary

2RP-2523

District I  
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State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	
District RP	2RP-2523
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #:
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

### Location of Release Source

Latitude 32.452537 Longitude -104.054648  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name North Indian Flats 26 Federal #1	Site Type Exploration and Production
Date Release Discovered 9/24/2014	API# (if applicable) 30-015-27556

Unit Letter	Section	Township	Range	County
G	26	21S	28E	Eddy

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

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 2	Volume Recovered (bbls) 1
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 8	Volume Recovered (bbls) 4
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

A flange gasket failed on the water transfer pump. The flange gasket was replaced. The spill affected approximately 450 sq. ft. of earthen containment berm around the water storage tank.


State of New Mexico  
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:  	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Kyle Littrell</u>	Title: <u>SH&amp;E Supervisor</u>
Signature: 	Date: <u>8/28/2019</u>
email: <u>Kyle.Littrell@xtoenergy.com</u>	Telephone: <u>432-221-7331</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____	

Incident ID	
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Facility ID	
Application ID	

## Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico  
Oil Conservation Division

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 8/28/2019

email: Kyle\_Littrell@xtoenergy.com Telephone: (432)-221-7331

**OCD Only**

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

Incident ID	
District RP	2RP-2523
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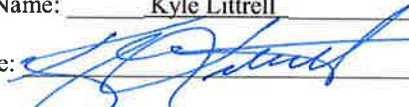
## Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor  
 Signature:  Date: 8/28/2019  
 email: Kyle.Littrell@xtoenergy.com Telephone: 432-221-7331

### OCD Only

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

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

Closure Approved by: Bradford Billings Date: 05/12/2020  
 Printed Name: Bradford Billings Title: E.Spec.A



**NM OIL CONSERVATION**  
ARTESIA DISTRICT

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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

JAN 21 2015

Form C-141  
Revised August 8, 2011

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

RECEIVED

**Release Notification and Corrective Action**

NAB1502633538

**OPERATOR**

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. <u>260737</u>	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: North Indian Flats 26 Federal #1	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-27556
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**LOCATION OF RELEASE**

Unit Letter G	Section 26	Township 21S	Range 28E	Feet from the 2150	North/South Line North	Feet from the 1980	East/West Line East	County Eddy
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Latitude N 32.452537 Longitude W 104.054648

**NATURE OF RELEASE**

Type of Release: Produced water	Volume of Release: 7 bbls produced water	Volume Recovered: 4 bbls produced water
Source of Release: Air Eliminator	Date and Hour of Occurrence 1/12/15 time unknown	Date and Hour of Discovery: 1/12/15 approximately 1:17 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? M. Bratcher, H. Patterson and Jim Amos	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* An air eliminator on the water transfer pump failed, the part was replaced.

Describe Area Affected and Cleanup Action Taken.\* The spill affected approximately 450 sq. ft. of earthen containment berm around the water storage tank. Same area impacted as previous spill on 9/24/14, reference spill report #2RP-2523. The spill area will be remediated following the NMOCD and BLM guidelines for spills and releases.

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

**OIL CONSERVATION DIVISION**

Signature: <u>Tony Savoie</u>	Approved by Environmental Specialist: <u>[Signature]</u>	
Printed Name: Tony Savoie	Approval Date: <u>1/23/15</u>	Expiration Date: <u>NA</u>
Title: Waste Management and Remediation Specialist	Conditions of Approval:	
E-mail Address: <u>tasavoie@basspet.com</u>	Remediation per O.C.D. Rules & Guidelines	
Date: <u>1/21/15</u> Phone: 432-556-8730	SUBMIT REMEDIATION PROPOSAL NO	
	Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

LATER THAN: 2/23/15

2RP-2759

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	
District RP	2RP-2759
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #:
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

### Location of Release Source

Latitude 32.452537 \_\_\_\_\_ Longitude -104.054648 \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name North Indian Flats 26 Federal #1	Site Type Exploration and Production
Date Release Discovered 1/12/2015	API# (if applicable) 30-015-27556

Unit Letter	Section	Township	Range	County
G	26	21S	28E	Eddy

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

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 7	Volume Recovered (bbls) 4
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

An air eliminator on the water transfer pump failed, the part was replaced. The spill affected approximately 450 sq. ft. of earthen containment berm around the water storage tank. The area impacted is the same as previous spill on 9/24/2014, reference spill report 2RP-2523.




State of New Mexico  
Oil Conservation Division

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<p>Was this a major release as defined by 19.15.29.7(A) NMAC?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>If YES, for what reason(s) does the responsible party consider this a major release?</p> <p>N/A</p>
<p>If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?</p> <p>N/A</p>	

### Initial Response

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

<p><input checked="" type="checkbox"/> The source of the release has been stopped.</p> <p><input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.</p> <p><input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.</p> <p><input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.</p>
<p>If all the actions described above have <u>not</u> been undertaken, explain why:</p>
<p>Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.</p>
<p>I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.</p>
<p>Printed Name: <u>Kyle Littrell</u> Title: <u>SH&amp;E Supervisor</u></p> <p>Signature:  Date: <u>8/28/2019</u></p> <p>email: <u>Kyle.Littrell@xtoenergy.com</u> Telephone: <u>432-221-7331</u></p>
<p><b><u>OCD Only</u></b></p> <p>Received by: _____ Date: _____</p>

Incident ID	
District RP	2RP-2759
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Application ID	

## Site Assessment/Characterization

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

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

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

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

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

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

State of New Mexico  
Oil Conservation Division

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Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 8/28/2019

email: Kyle\_Littrell@xtoenergy.com Telephone: (432)-221-7331

**OCD Only**

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

Incident ID	
District RP	2RP-2759
Facility ID	
Application ID	

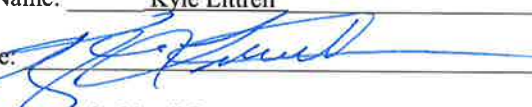
## Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor  
Signature:  Date: 8/28/2019  
email: Kyle\_Littrell@xtoenergy.com Telephone: 432-221-7331

### OCD Only

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

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

Closure Approved by: Bradford Billings Date: 05/12/2020  
Printed Name: Bradford Billings Title: E.Spec.A

# NM OIL CONSERVATION

ARTESIA DISTRICT

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

State of New Mexico  
Energy Minerals and Natural Resources

JAN 09 2017

Form C-141  
Revised August 8, 2011

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.

RECEIVED

## Release Notification and Corrective Action

DAB1701052774		OPERATOR		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company: BOPCO, L.P. 210737		Contact: Amy Ruth			
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220		Telephone No. 575-887-7329			
Facility Name: North Indian Flats 26 Federal #1		Facility Type: Exploration and Production			
Surface Owner: Federal		Mineral Owner: Federal		API No. 30-015-27556	

## LOCATION OF RELEASE

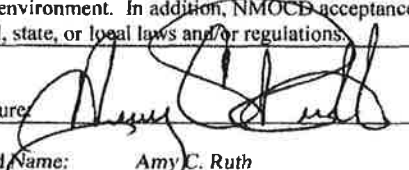

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	26	21S	28E	2100	North	1850	East	Eddy

Latitude 32.452595° Longitude -104.054825°

## NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	21 bbls	Volume Recovered	5 bbls
Source of Release	Pinhole in valve	Date and Hour of Occurrence	12/22/2016 time unknown	Date and Hour of Discovery	12/22/2016 10 am
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	N/A		
By Whom?	N/A	Date and Hour	N/A		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	N/A		
If a Watercourse was Impacted, Describe Fully.* N/A					
Describe Cause of Problem and Remedial Action Taken.* The body of a check valve developed a pinhole due to corrosion and fluids were released to the well location. The failed check valve was replaced.					
Describe Area Affected and Cleanup Action Taken.* The leak affected 2731 square feet of caliche pad and free standing fluids were immediately recovered.					

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

Signature: 		OIL CONSERVATION DIVISION	
Printed Name: Amy C. Ruth		Approved by Environmental Specialist: 	
Title: EHS Environmental Supervisor	Approval Date: 1/10/17	Expiration Date: N/A	
E-mail Address: ACRuth@basspet.com	Conditions of Approval: See attached		Attached <input type="checkbox"/>
Date: 1/9/2017	Phone: 432-661-0571		

\* Attach Additional Sheets If Necessary

2RP-4066

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	
District RP	2RP-4066
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #:
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

### Location of Release Source

Latitude 32.452595 Longitude -104.054825  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name North Indian Flats 26 Federal #1	Site Type Exploration and Production
Date Release Discovered 12/22/2016	API# (if applicable) 30-015-27556

Unit Letter	Section	Township	Range	County
G	26	21S	28E	Eddy

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

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 21	Volume Recovered (bbls) 5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

The body of a check valve developed a pinhole due to corrosion and fluids were released to the well location. The failed check valve was replaced. The leak affected approximately 2,731 square feet of caliche pad and free standing fluids were immediately recovered.


State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-4066
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:   
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Kyle Littrell</u> Title: <u>SH&amp;E Supervisor</u> Signature:  Date: <u>8/28/2019</u> email: <u>Kyle.Littrell@xtoenergy.com</u> Telephone: <u>432-221-7331</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____



Incident ID	
District RP	2RP-4066
Facility ID	
Application ID	

## Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-4066
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: 

Date: 8/28/2019

email: Kyle\_Littrell@xtoenergy.com

Telephone: (432)-221-7331

**OCD Only**

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

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

Incident ID	
District RP	2RP-4066
Facility ID	
Application ID	

## Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 8/28/2019

email: Kyle.Littrell@xtoenergy.com Telephone: 432-221-7331

**OCD Only**

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

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

Closure Approved by: Bradford Billings Date: 05/12/2020

Printed Name: Bradford Billings Title: E.Spec/A

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised April 3, 2017

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

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: XTO Energy BOPCO OGRID: 260737	Contact: Kyle Littrell
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No: 432-221-7331
Facility Name: North Indian Flats 26 Federal #1	Facility Type: Exploration and Production
Surface Owner: Federal	Mineral Owner: Federal
API No: 30-015-27556	

#### LOCATION OF RELEASE

Unit Letter G	Section 26	Township 21S	Range 28E	Feet from the 2150	North/South Line North	Feet from the 1980	East/West Line East	County Eddy
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Latitude 32.452295 Longitude -103.054719 NAD83

#### NATURE OF RELEASE

Type of Release Oil	Volume of Release 7bbl oil	Volume Recovered 4bbl oil
Source of Release Oil tank	Date and Hour of Occurrence 7/26/2018, 10:00 AM	Date and Hour of Discovery 7/26/2018, 10:00 AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour: N/A	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Crew was attempting to remove flowline from oil tank on location. Upon striking hammer union, threads connecting valve and swedge cracked, causing a release of oil into earthen containment. Vacuum truck was dispatched and recovered all standing fluid. Damaged connection was repaired and all recovered oil was returned to oil tank.		
Describe Area Affected and Cleanup Action Taken.* All fluid was contained to earthen berm. Vacuum truck was dispatched and recovered 4bbl standing fluid from berm. An environmental contractor has been retained to assist with remediation efforts.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: 		<b>OIL CONSERVATION DIVISION</b>
Printed Name: Amy C. Ruth		Approved by Environmental Specialist: Maria Pruett
Title: Environmental Coordinator	Approval Date: 08/10/18	Expiration Date: N/A
E-mail Address: Amy_Ruth@xtoenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8/9/2018 Phone: 575-689-3380		2RP-4912

\* Attach Additional Sheets If Necessary

I#:nMAP1822267131  
A#:pMAP1822266963

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	
District RP	2RP-4912
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #:
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

### Location of Release Source

Latitude 32.452295 Longitude -104.054719  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name North Indian Flats 26 Federal #1	Site Type Exploration and Production
Date Release Discovered 7/26/2018	API# (if applicable) 30-015-27556

Unit Letter	Section	Township	Range	County
G	26	21S	28E	Eddy

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

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 7	Volume Recovered (bbls) 4
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

The crew was attempting to remove flowline from oil tank on location. Upon striking hammer union, threads connecting valve and swedge cracked, causing a release of oil into earthen containment. Vacuum truck was dispatched and recovered all standing fluid. Damaged connection was repaired and all recovered oil was returned to oil tank.


State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-4912
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:   
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Kyle Littrell</u> Title: <u>SH&amp;E Supervisor</u> Signature:  Date: <u>8/28/2019</u> email: <u>Kyle.Littrell@xtoenergy.com</u> Telephone: <u>432-221-7331</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____

Incident ID	
District RP	2RP-4912
Facility ID	
Application ID	

## Site Assessment/Characterization

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

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

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

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

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

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



State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-4912
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 8/28/2019

email: Kyle\_Littrell@xtoenergy.com Telephone: (432)-221-7331

**OCD Only**

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

Incident ID	
District RP	2RP-4912
Facility ID	
Application ID	

## Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 8/28/2019

email: Kyle\_Littrell@xtoenergy.com Telephone: 432-221-7331

### **OCD Only**

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

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

Closure Approved by: Bradford Billings Date: 05/12/2020

Printed Name: Bradford Billings Title: E.Spec.A



## **Remediation Closure Report**



**North Indian Flats 26 Federal #1**  
**Eddy County, New Mexico**  
Section 26, Township 21 South, Range 28 East  
Latitude 32.452530° North, Longitude 104.054850 ° West

**May 29, 2019**

**Prepared for:**

**XTO Environmental Management**

**Regulatory Distribution:**

Bradford Billings- NMOCD [bradford.billings@state.nm.us](mailto:bradford.billings@state.nm.us)

Mike Bratcher- NMOCD [mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)

Jim Amos- BLM [jamos@blm.gov](mailto:jamos@blm.gov)

Crystal Weaver- BLM [caweaver@blm.gov](mailto:caweaver@blm.gov)

Deborah McKinney- BLM [dmckinne@blm.gov](mailto:dmckinne@blm.gov)

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## Introduction

The purpose of this Remediation Closure Report is to provide an outline of the procedures utilized by HydroChemPSC to perform restoration of areas contaminated by the hydrocarbon releases at the **XTO-North Indian Flats 26 FED #1 site**.

The Operator XTO Energy reported releases on various dates utilizing OCD reporting form C-141. References to each incident is identified within the report. This report details the requirements and actions taken to sample and remediate for hydrocarbon releases reported and ensure the impacted soils/property meet the no further action for releasing as defined by the New Mexico Oil Conservation Division (NMOCD). The information was used as a general guide for all federal, state and fee lands when remediating contaminants resulting from leaks, spills and releases of oilfield wastes or products.

The NMOCD requires that corrective actions be taken for leaks, spills or releases of any material which has a reasonable probability or be detrimental to public health, fresh waters, animal or plant life, or property or unreasonably interfere with the public welfare or use of the property. The guidelines were followed to provide direction for remediation of soils contaminated. Specific constituents and/or requirements for soil and ground water analysis and/or remediation may vary depending on site specific conditions. Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release.

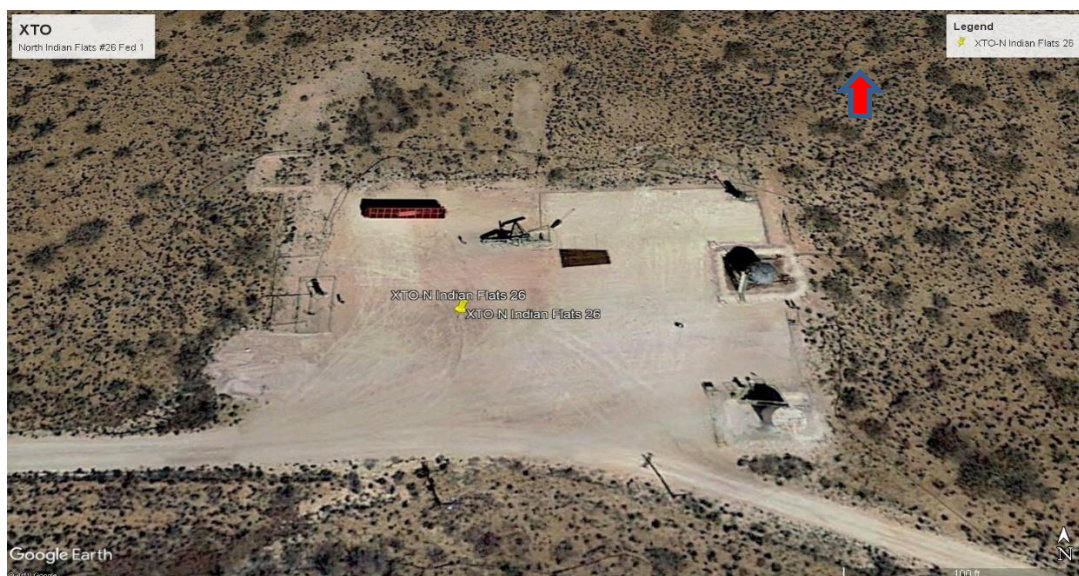
**\*Note:** None of the fluid release events depicted in the report traversed, leached or flowed offsite exiting the original well site lease location.

### Site Specific Information:

- Company-**XTO Energy (former Bopco, LP site)**
- Field-**North Indian Flats**
- Lease- **26 Federal #1**
- County-**Eddy**
- API No.- **30-015-27556**
- Section- **26**
- Township- **21S**
- Surface/Mineral Owner- **Federal**
- Lat/Long- **32.452595 N -104.054825**
- OCD Notifications #- **2RP-2523/2RP-2759/2RP-4066/2RP-4912**
- Date of Loss Occurrences- **9/24/14 – 1/12/15 – 12/22/16 – 7/26/18**
- Reported Type of Released-**Crude/Produced Water**
- Total Fluid Loss Volume Reported-**45 Barrels (communitive total)**
- Recovered Volume Reported-**18- barrels (communitive total)**
- Contaminated Soil Recovered Upon Completion -**550 cubic yards**

**Note:** Multiple references related to spill occurrences reported to NMOCD on provided C-141 notifications.

### Aerial Reference





## **Photo Illustrations of Historical Events**





## **Site Preparation**

Field operations office and break areas were set up in an area where field activities could be monitored and remediation procedures could be positively controlled. A waste staging area was setup and established for waste preparation, loading and transportation to disposal. Labor and Equipment necessary to perform the remediation project was assembled and mobilized following the authorization to proceed. Equipment was delivered to the site and set up for field operations. The specific layout of equipment was determined in the field after equipment mobilization to the site.

## **Summarized Project Activities**

- Performed Pre-Project Meeting.
- Notification with XTO Energy prior to executing.
- Identification of Pipe Lines prior to executing project. (One Call Notification).
- Site Preparation.
- Excavation/Remediation of Contaminated Soils.
- Final sampling notification to NMOCD and BLM.
- Transportation of Contaminated Soils.
- Post-Project Sampling Analysis.
- Photo Gallery Recap.

## **Soil Sampling Procedures for Laboratory Analysis**

All soil sampling for laboratory analysis was conducted according to NMOCD approved industry standards or other NMOCD-approved procedures. Accepted NMOCD soil sampling procedures and laboratory analytical methods are as follows:

- Collect samples in clean, air-tight glass jars supplied by the laboratory which will conduct the analysis.
- Samples were labeled with a unique code for each.
- Samples were packed cold or on ice.
- Promptly shipped to the lab for analysis following chain of custody procedures.
- All samples were analyzed within the holding times for the laboratory analytical methods specified by EPA.

## **Soil Analytical Methods**

All soil samples were analyzed using EPA methods, or by other NMOCD approved methods. Below are laboratory analytical methods accepted by NMOCD for analysis of soil samples analyzed for petroleum related constituents.

- ❖ Chlorides- EPA 300 Method
- ❖ Benzene, toluene, ethylbenzene and xylene -EPA Method 602/8020.
- ❖ Total Petroleum Hydrocarbons -EPA Method 418.1, or; EPA Method Modified 8015.

## **Goals for Soil Characterization**

- 1) Determination of the lateral and vertical extents along with the magnitude of soil contamination.
- 2) Determine if groundwater or surface waters have been impacted.
- 3) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). Vertical & Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination was characterized to the following release concentrations:

- ❖ Benzene <10 mg/kg.
- ❖ Total BTEX <50 mg/kg.
- ❖ TPH <100 mg/kg.
- ❖ Chlorides < 600 mg/kg.

## **Achievement Goals for Soil Remediation**

When RCRA exempt or RCRA nonhazardous petroleum contaminated soil requires remediation, it will be remediated and managed according to the criteria described below or by other NMOCD approved procedures which will remove, treat, or isolate contaminants in order to protect fresh waters, public health and the environment. Highly contaminated/saturated soils and unsaturated contaminated soils exceeding the standards described should be either:

- 1 Excavated from the ground until a representative sample from the walls and bottom of the excavation is below the contaminant specific remediation level or an alternate approved remediation level.
- 2 Excavated to the required depth and horizontal extent practicable. Upon reaching this limit samples will be taken from the walls and bottom of the excavation to determine the remaining levels of soil contaminants. Further excavation may be required.
- 3 Treatment of soil in place was not be performed for remediation or reclamation projects.
- 4 All contaminated soils were transported offsite to an approved disposal facility and documented.

## Summary of Soil Remediation Activities

Following initial assessment of the site on February 6, 2019. Heavy equipment was mobilized in on March 11, 2019 and used to excavate all contaminated soils; the project was worked in tandem as being a Site Abandonment and Reclamation for release project also. Soils in the impacted areas were excavated from 1” to 36” depths in various areas. During vertical and horizontal excavation, a previous installed (20) mil polyurethane liner was located at a depth of ~3’. The reference area is identified on the included site excavation mapping. The liner was not disturbed or compromised during the project execution. On March 23, 2019 the NMOCD was notified of a final sampling event being performed after the excavation of the contaminated areas. On 3/25/19 a total of 12 samples was extracted for laboratory analysis; the sampling event references areas depicted in the illustrated mapping included within the report referencing OCD Notification **2RP-4912**. Final laboratory analytical results for TPH/BTEX and EPA 300 Chloride contents indicated all samples were below the regulatory action levels established by the NMOCD. **Note phase 1 referenced sampling release table below within the report.**

On May 14, 2019 the NMOCD was notified of a final sampling event referencing OCD Notifications **2RP-2523/2RP-2759** and **2RP-4066**. These historical spill events occurred previously on 9/24/14 – 1/12/15 and 12/22/16. Release sampling was performed on May 16, 2019 depicted in the illustrated mapping included. Final analytical results referencing 12 additional samples extracted were all below the NMOCD regulatory action levels. **Note phase 2 referenced sampling release table below within the report.**

Grab and Composite samples from the summary above were collected from the remediated areas in reference to the sampling event and analyzed at a laboratory for Total Petroleum Hydrocarbons (TPH), Chlorides, BTEX and Benzene using NMOCD approved methods. A final level of acceptance for release was achieved through laboratory analysis. All original sampling data reference has been submitted.

Volume of contaminated soil excavated for the project in its entirety was ~**550** cubic yards. Impacted soil was temporarily stockpiled prior to load-out then transported offsite from the location to an approved disposal site (**R-360 Environmental**). While derived methods were used in the practical course of remediation, release criteria for the site were based on field data for release by confirmed laboratory measurements.

## Sampling Release Tables

### Phase #1- Reference 2RP-4912

#### Analysis Certificate #619079 3/25/19

#### Analysis Certificate #619714 3/29/19 (2-retakes)

SAMPLE LOCATIONS	SAMPLE DEPTH	SAMPLE DATE	SOIL STAUTS	METHOD: EPA 8021B					METHOD: 8015M			TOTAL TPH C6-C35 (mg/Kg)	EPA 300 CHLORIDE (mg/Kg)	Comments
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	EHTYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Lg)	TOTAL BETEX (mg/Kg)	GRO C6-C12 (mg/Kg)	DRO C12-C28 (mg/Kg)	MRO C28-C35 (mg/Kg)			
001-North Bottom-Grab	0-3'	3/25/2019	Dry	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	1040	313	1350	<4.95	Note retake
002-Center Bottom-Grab	0-3'	3/25/2019	Dry	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<4.95	
003-South Bottom-Grab	0-3'	3/25/2019	Dry	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	13	
004-East Wall-Grab	0-3'	3/25/2019	Dry	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	8.72	
005-Bottom-Composite	0-3'	3/25/2019	Dry	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	21.9	<14.9	21.9	96.1	
006-North Wall-Composite	0-3'	3/25/2019	Dry	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	68.9	16.5	85.4	15	
007-South Wall-Composite	0-3'	3/25/2019	Dry	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	144	32.2	176	23.1	Note retake
008-West Wall-Composite	0-3'	3/25/2019	Dry	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	28.2	<14.9	28.2	35	
009-East Wall-Composite	0-3'	3/25/2019	Dry	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	36.1	<15.0	36.1	5.79	
010-E1 (release retake)	0-3'	3/25/2019	Dry	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<4.98	
011-E2 (release retake)	0-3'	3/25/2019	Dry	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<5.00	
012-E3 (release retake)	0-3'	3/25/2019	Dry	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<5.00	
001-N Bottom Grab-retake	0-3'	3/29/2019	Dry						17	<14.9	<14.9	17		Retake-001
002-S Wall Grab-retake	0-3'	3/29/2019	Dry						23.3	<14.9	<14.9	23.3		Retake-007
NMOCD Criteria				<10mg/kg				<50mg/kg				<100mg/kg	<600mg/kg	

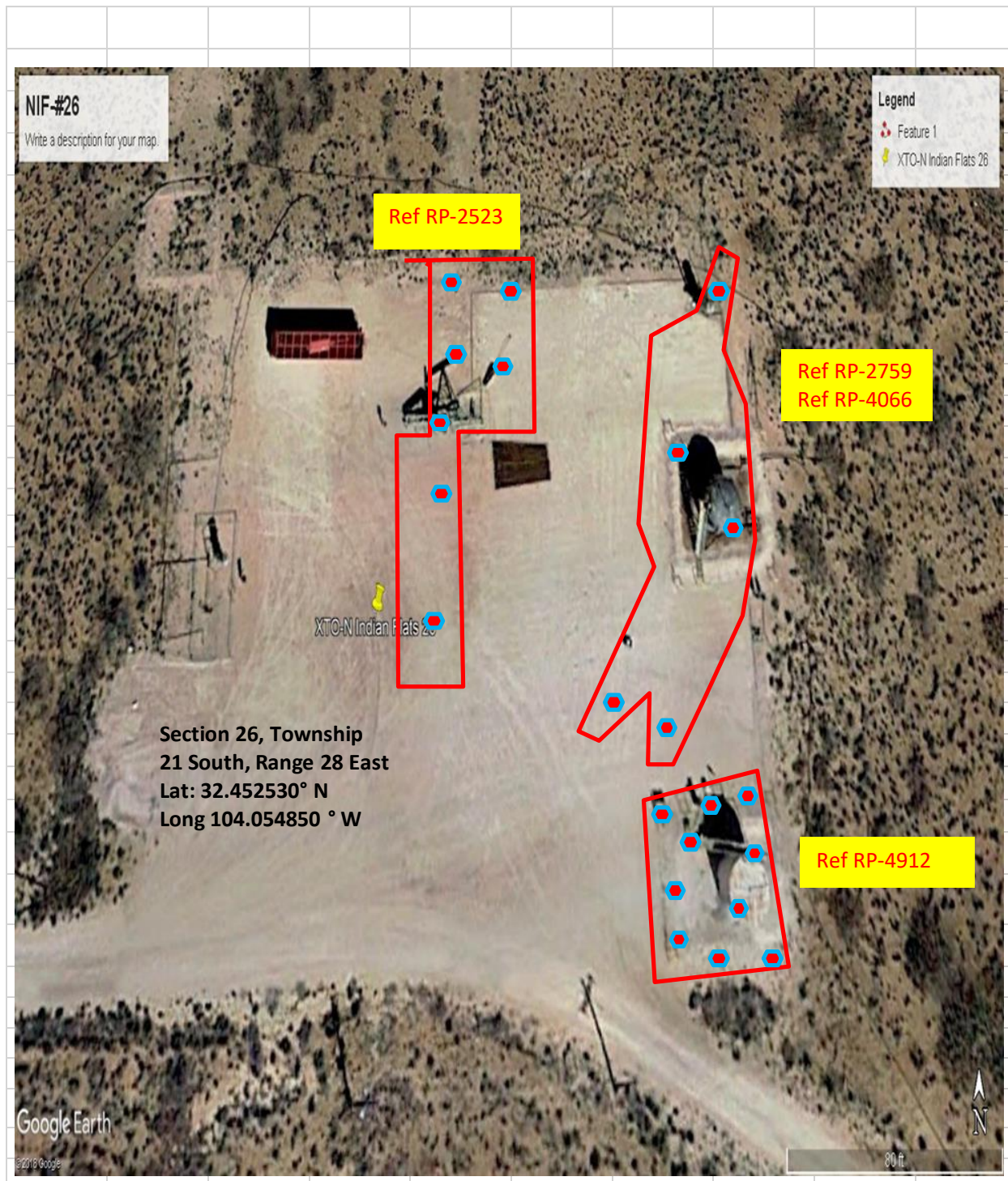
### Phase #2- Reference 2RP-2523/2RP-2759/2RP-4066

#### Analysis Certificate #624909 5/16/19

SAMPLE LOCATIONS	SAMPLE DEPTH	SAMPLE DATE	SOIL STAUTS	METHOD: EPA 8021B					METHOD: 8015M			TOTAL TPH C6-C35 (mg/Kg)	EPA 300 CHLORIDE (mg/Kg)	Comments
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	EHTYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Lg)	TOTAL BETEX (mg/Kg)	GRO C6-C12 (mg/Kg)	DRO C12-C28 (mg/Kg)	MRO C28-C35 (mg/Kg)			
PJ1-North Bottom-Grab	0-3'	5/16/2019	Dry	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	7.44	
PJ2-East Bottom-Grab	0-3'	5/16/2019	Dry	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	4.96	
PJ3-South Bottom-Grab	0-3'	5/16/2019	Dry	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	5.04	
PJ4-West Wall-Grab	0-3'	5/16/2019	Dry	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	4.98	
PJ5-East Wall-Composite	0-3'	5/16/2019	Dry	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	10.7	
PJ6-South Wall-Composite	0-3'	5/16/2019	Dry	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	9.68	
PJ7-North Wall-Composite	0-3'	5/16/2019	Dry	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	4.99	
S1-North Area-Composite	0-3'	5/16/2019	Dry	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	7.72	
S2-East Center Area	0-3'	5/16/2019	Dry	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	5.01	
S3-South Center	0-3'	5/16/2019	Dry	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	5.02	
S4-S.E Leg	0-3'	5/16/2019	Dry	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	4.99	
S5-S.W Leg	0-3'	5/16/2019	Dry	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	5.03	
NMOCD Criteria				<10mg/kg				<50mg/kg				<100mg/kg	<600mg/kg	



## Aerial of Location and Sampling Plots





## Appendices

**Appendix A – Certificate of Laboratory Analysis Release Report #619079 3/25/19**

**Appendix B – Certificate of Laboratory Analysis Report #619714 4/3/19 (2-Retakes)**

**Appendix C- Certificate of Laboratory Analysis Report #624909 5/16/19**

**Appendix D – NMOCD C-141 Notifications**

- ❖ Attachments of the original appendix documents has been included and submitted with the final closure request.

## Closure Photo Gallery



### Final Aerial View of Location



### Post Remedial Closure Summary

Following Remediation, this final summary report was prepared to document the project in its entirety for **XTO Energy** to submit a no further action release request to the New Mexico Oil Conservation Division (NMOCD). Additional submittal may be requested by the Bureau of Land Management (BLM). This final closure report documents the execution of the remedial services performed. An aerial map illustrates the area affected by the spill occurrence; locations of remedial sampling to delineate the impacts, and sampling locations to confirm successful remediation. Areas of contamination identified in the analytical process were vertically and horizontally delineated. Post-remediation sampling data indicates the site meets compliance with NMOCD standards and confirms no remaining soils exceeds elevated contamination levels.

**Note:** No onsite bioremediation or other methods i.e. soil blending/mixing was performed on the project. Contaminated soil was transported offsite to an approved permitted landfill for disposal. Topsoil media was dressed, and dozer bladed for resurfacing of the site upon completion.

This closure report includes a summary of the remediation performed, onsite activities, analytical data and pertinent project documentation. Additional Abandoned and Reclamation services was performed to return the site back to its original state. Original project file reports/copies and backups have been submitted to XTO Energy Environmental Management.

HydroChemPSC recommends XTO Energy provide the NMOCD District Office and the BLM a copy of this Remediation Summary & Site Closure Request. HydroChemPSC on behalf of XTO Energy request closure of the RP files.





# Certificate of Analysis Summary 593503

PSC Industrial Outsourcing LP, Gibson, LA

Project Name: XTO NFI #26



Project Id: 217.1.711.0003.J0032

Contact: Perry Verret

Project Location:

Date Received in Lab: Wed Jul-25-18 11:00 am

Report Date: 26-JUL-18

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	593503-001	593503-002	593503-003	593503-004	593503-005	593503-006
	<i>Field Id:</i>	A-1	B-1	C-1	D-1	E-1	F-1
	<i>Depth:</i>	0-6	0-6	0-6	0-6	0-6	0-6
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-24-18 11:00	Jul-24-18 11:10	Jul-24-18 11:20	Jul-24-18 11:30	Jul-24-18 11:40	Jul-24-18 11:50
Chloride by EPA 300	<i>Extracted:</i>	Jul-25-18 16:30	Jul-25-18 16:30	Jul-25-18 16:30	Jul-25-18 16:30	Jul-25-18 16:30	Jul-25-18 16:30
	<i>Analyzed:</i>	Jul-25-18 19:08	Jul-25-18 19:24	Jul-25-18 19:29	Jul-25-18 19:35	Jul-25-18 19:40	Jul-25-18 19:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<5.00 5.00	103 4.97	66.8 5.00	182 4.95	46.2 4.95	50.1 4.95

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Holly Taylor  
Project Manager



# Certificate of Analysis Summary 593503

PSC Industrial Outsourcing LP, Gibson, LA

Project Name: XTO NFI #26



Project Id: 217.1.711.0003.J0032

Contact: Perry Verret

Project Location:

Date Received in Lab: Wed Jul-25-18 11:00 am

Report Date: 26-JUL-18

Project Manager: Holly Taylor

<b>Analysis Requested</b>	<b>Lab Id:</b>	593503-007	593503-008	593503-009	593503-010		
	<b>Field Id:</b>	G-1	H-1	I-1	BG-1		
	<b>Depth:</b>	0-6	0-6	0-6	0-6		
	<b>Matrix:</b>	SOIL	SOIL	SOIL	SOIL		
	<b>Sampled:</b>	Jul-24-18 12:00	Jul-24-18 12:10	Jul-24-18 12:20	Jul-24-18 12:40		
<b>Chloride by EPA 300</b>	<b>Extracted:</b>	Jul-25-18 16:30	Jul-25-18 16:30	Jul-25-18 16:30	Jul-25-18 16:30		
	<b>Analyzed:</b>	Jul-25-18 20:02	Jul-25-18 20:07	Jul-25-18 20:12	Jul-25-18 20:18		
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		<4.96 4.96	50.8 4.97	14.6 4.95	<4.96 4.96		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.  
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.  
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.  
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Holly Taylor  
Project Manager

# Analytical Report 593503

## for PSC Industrial Outsourcing LP

**Project Manager: Perry Verret**

**XTO NFI #26**

**217.1.711.0003.J0032**

**26-JUL-18**

Collected By: Client



**1211 W. Florida Ave, Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)

Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)

Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429)

Xenco-Lakeland: Florida (E84098)



26-JUL-18

Project Manager: **Perry Verret**  
**PSC Industrial Outsourcing LP**  
756 Geraldine Rd

Gibson, LA 70356

Reference: XENCO Report No(s): **593503**  
**XTO NFI #26**  
Project Address:

**Perry Verret:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 593503. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 593503 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

---

**Holly Taylor**  
Project Manager

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

*Certified and approved by numerous States and Agencies.*

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

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



## Sample Cross Reference 593503



### PSC Industrial Outsourcing LP, Gibson, LA

XTO NFI #26

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
A-1	S	07-24-18 11:00	0 - 6	593503-001
B-1	S	07-24-18 11:10	0 - 6	593503-002
C-1	S	07-24-18 11:20	0 - 6	593503-003
D-1	S	07-24-18 11:30	0 - 6	593503-004
E-1	S	07-24-18 11:40	0 - 6	593503-005
F-1	S	07-24-18 11:50	0 - 6	593503-006
G-1	S	07-24-18 12:00	0 - 6	593503-007
H-1	S	07-24-18 12:10	0 - 6	593503-008
I-1	S	07-24-18 12:20	0 - 6	593503-009
BG-1	S	07-24-18 12:40	0 - 6	593503-010



## CASE NARRATIVE

*Client Name: PSC Industrial Outsourcing LP*

*Project Name: XTO NFI #26*

Project ID: 217.1.711.0003.J0032  
Work Order Number(s): 593503

Report Date: 26-JUL-18  
Date Received: 07/25/2018

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**Sample receipt non conformances and comments:**

None

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**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analytical Results 593503



## PSC Industrial Outsourcing LP, Gibson, LA

XTO NFI #26

Sample Id: A-1  
Lab Sample Id: 593503-001

Matrix: Soil  
Date Collected: 07.24.18 11.00

Date Received: 07.25.18 11.00  
Sample Depth: 0 - 6

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 07.25.18 16.30

Basis: Wet Weight

Seq Number: 3057784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.25.18 19.08	U	1





# Certificate of Analytical Results 593503



## PSC Industrial Outsourcing LP, Gibson, LA

XTO NFI #26

Sample Id: **B-1**  
Lab Sample Id: 593503-002

Matrix: Soil  
Date Collected: 07.24.18 11.10

Date Received: 07.25.18 11.00  
Sample Depth: 0 - 6

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3057784

Date Prep: 07.25.18 16.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	103	4.97	mg/kg	07.25.18 19.24		1



## Certificate of Analytical Results 593503



### PSC Industrial Outsourcing LP, Gibson, LA

XTO NFI #26

Sample Id: C-1  
Lab Sample Id: 593503-003

Matrix: Soil  
Date Collected: 07.24.18 11.20

Date Received: 07.25.18 11.00  
Sample Depth: 0 - 6

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3057784

Date Prep: 07.25.18 16.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	66.8	5.00	mg/kg	07.25.18 19.29		1



# Certificate of Analytical Results 593503



## PSC Industrial Outsourcing LP, Gibson, LA

XTO NFI #26

Sample Id: **D-1**  
Lab Sample Id: 593503-004

Matrix: Soil  
Date Collected: 07.24.18 11.30

Date Received: 07.25.18 11.00  
Sample Depth: 0 - 6

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3057784

Date Prep: 07.25.18 16.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	182	4.95	mg/kg	07.25.18 19.35		1



# Certificate of Analytical Results 593503



## PSC Industrial Outsourcing LP, Gibson, LA

XTO NFI #26

Sample Id: E-1  
Lab Sample Id: 593503-005

Matrix: Soil  
Date Collected: 07.24.18 11.40

Date Received: 07.25.18 11.00  
Sample Depth: 0 - 6

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 07.25.18 16.30

Basis: Wet Weight

Seq Number: 3057784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	46.2	4.95	mg/kg	07.25.18 19.40		1



# Certificate of Analytical Results 593503



## PSC Industrial Outsourcing LP, Gibson, LA

XTO NFI #26

Sample Id: **F-1**  
Lab Sample Id: 593503-006

Matrix: Soil  
Date Collected: 07.24.18 11.50

Date Received: 07.25.18 11.00  
Sample Depth: 0 - 6

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 07.25.18 16.30

Basis: Wet Weight

Seq Number: 3057784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.1	4.95	mg/kg	07.25.18 19.56		1



# Certificate of Analytical Results 593503



## PSC Industrial Outsourcing LP, Gibson, LA

XTO NFI #26

Sample Id: **G-1**  
Lab Sample Id: 593503-007

Matrix: Soil  
Date Collected: 07.24.18 12.00

Date Received: 07.25.18 11.00  
Sample Depth: 0 - 6

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 07.25.18 16.30

Basis: Wet Weight

Seq Number: 3057784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	07.25.18 20.02	U	1



# Certificate of Analytical Results 593503



## PSC Industrial Outsourcing LP, Gibson, LA

XTO NFI #26

Sample Id: **H-1**  
Lab Sample Id: 593503-008

Matrix: Soil  
Date Collected: 07.24.18 12.10

Date Received: 07.25.18 11.00  
Sample Depth: 0 - 6

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 07.25.18 16.30

Basis: Wet Weight

Seq Number: 3057784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.8	4.97	mg/kg	07.25.18 20.07		1





# Certificate of Analytical Results 593503



## PSC Industrial Outsourcing LP, Gibson, LA

XTO NFI #26

Sample Id: **I-1** Matrix: Soil Date Received: 07.25.18 11.00  
Lab Sample Id: 593503-009 Date Collected: 07.24.18 12.20 Sample Depth: 0 - 6  
Analytical Method: Chloride by EPA 300 Prep Method: E300P  
Tech: SCM % Moisture:  
Analyst: SCM Date Prep: 07.25.18 16.30 Basis: Wet Weight  
Seq Number: 3057784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.6	4.95	mg/kg	07.25.18 20.12		1



# Certificate of Analytical Results 593503



## PSC Industrial Outsourcing LP, Gibson, LA

XTO NFI #26

Sample Id: **BG-1**  
Lab Sample Id: 593503-010

Matrix: Soil  
Date Collected: 07.24.18 12.40

Date Received: 07.25.18 11.00  
Sample Depth: 0 - 6

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 07.25.18 16.30

Basis: Wet Weight

Seq Number: 3057784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	07.25.18 20.18	U	1

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit

**SDL** Sample Detection Limit

**LOD** Limit of Detection

**PQL** Practical Quantitation Limit

**SQL** Sample Quantitation Limit

**LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample

**BLK**

Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample

**BKSD/LCSD**

Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate

**MS**

Matrix Spike

**MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



## QC Summary 593503

### PSC Industrial Outsourcing LP

XTO NFI #26

**Analytical Method: Chloride by EPA 300**

Seq Number: 3057784

MB Sample Id: 7659096-1-BLK

Matrix: Solid

LCS Sample Id: 7659096-1-BKS

Prep Method: E300P

Date Prep: 07.25.18

LCSD Sample Id: 7659096-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.99	250	256	102	252	101	90-110	2	20	mg/kg	07.25.18 18:57	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3057784

Parent Sample Id: 593475-002

Matrix: Soil

MS Sample Id: 593475-002 S

Prep Method: E300P

Date Prep: 07.25.18

MSD Sample Id: 593475-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.02	251	267	106	257	102	90-110	4	20	mg/kg	07.25.18 20:29	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3057784

Parent Sample Id: 593503-001

Matrix: Soil

MS Sample Id: 593503-001 S

Prep Method: E300P

Date Prep: 07.25.18

MSD Sample Id: 593503-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	265	106	262	105	90-110	1	20	mg/kg	07.25.18 19:13	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



# Chain of Custody

Work Order No. 217-1711-0003-0003A

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

www.xenco.com Page 1 of 1

Project Manager:	<i>Peay, Leary</i>	Bill to: (if different)	
Company Name:	<i>Hydram PSC</i>	Company Name:	<i>Hydram PSC</i>
Address:	<i>P.O. Box 1529</i>	Address:	<i>P.O. Box 1529</i>
City, State ZIP:	<i>Amelia, LA</i>	City, State ZIP:	<i>Amelia, LA</i>
Phone:	<i>985-221-0644</i>	Email:	<i>Peay, Leary @ Hydram PSC, Com</i>

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level: I <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	<i>XT0 ALE 26</i>	Turn Around	<input type="checkbox"/>
Project Number:		Routine <input type="checkbox"/>	
P.O. Number:	<i>LAN 1217-1535</i>	Rush: <i>24 HR.</i>	
Sampler's Name:	<i>Peay, Leary / David Woods</i>	Due Date: <i>ASAP</i>	
SAMPLE RECEIPT		Temp Blank:	Yes <input type="checkbox"/> No <input type="checkbox"/>
Temperature (°C):	<i>2.3</i>	Thermometer ID	
Received intact:	Yes <input type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	<i>PS</i>
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Total Containers:	<i>2</i>
Sample Custody Seals:	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers									
A-1	S	7-24-18	1100	0-6	1	2								
B-1	S	7-24	1110	0-6	1	2								
C-1	S	7-24	1120	0-6	1	2								
D-1	S	7-24-18	1130	0-6	1	2								
E-1	S	7-24	1140	0-6	1	2								
F-1	S	7-24	1150	0-6	1	2								
G-1	S	7-24	1200	0-6	1	2								
H-1	S	7-24	1210	0-6	1	2								
I-1	S	7-24	1220	0-6	1	2								
B-1	S	7-24	1240	0-6	1	2								

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

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	7-24-18-1300	<i>[Signature]</i>	<i>[Signature]</i>	8-24-18/29111400
<i>[Signature]</i>	<i>[Signature]</i>	7/25/18 11:00 <sup>4</sup>	<i>[Signature]</i>	<i>[Signature]</i>	7-24-18/1400
<i>[Signature]</i>	<i>[Signature]</i>		<i>[Signature]</i>	<i>[Signature]</i>	
<i>[Signature]</i>	<i>[Signature]</i>		<i>[Signature]</i>	<i>[Signature]</i>	



# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



Client: PSC Industrial Outsourcing LP

Date/ Time Received: 07/25/2018 11:00:00 AM

Work Order #: 593503

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

### Sample Receipt Checklist

### Comments

#1 *Temperature of cooler(s)?	2.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Connie Hernandez

Date: 07/25/2018

Checklist reviewed by:

Holly Taylor

Date: 07/25/2018



# Certificate of Analysis Summary 619079

HydroChemPSC (PSC), Morgan City, LA

Project Name: North Indian Flats 2b Fed 001



Project Id: XTO-995  
Contact: Perry Verret  
Project Location:

Date Received in Lab: Wed Mar-27-19 11:50 am  
Report Date: 29-MAR-19  
Project Manager: Brandi Ritcherson

<i>Analysis Requested</i>	<i>Lab Id:</i>	619079-001	619079-002	619079-003	619079-004	619079-005	619079-006
	<i>Field Id:</i>	North Bottom Grab	Center Bottom Grab	South Bottom Grab	East Wall Grab	Bottom Composite	North Wall Composite
	<i>Depth:</i>	0.3- ft	0.3- ft	0.3- ft	0.3- ft	0.3- ft	0.3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-25-19 08:05	Mar-25-19 08:35	Mar-25-19 08:40	Mar-25-19 08:30	Mar-25-19 08:25	Mar-25-19 08:20
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Mar-27-19 15:00	Mar-27-19 15:00	Mar-27-19 15:00	Mar-27-19 15:00	Mar-27-19 15:00	Mar-27-19 15:00
	<i>Analyzed:</i>	Mar-28-19 01:05	Mar-27-19 23:50	Mar-28-19 00:09	Mar-28-19 00:28	Mar-28-19 00:47	Mar-28-19 02:20
	<i>Units/RL:</i>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		RL	RL	RL	RL	RL	RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00402 0.00402	<0.00400 0.00400	<0.00402 0.00402	<0.00398 0.00398	<0.00401 0.00401	<0.00399 0.00399
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	Mar-27-19 15:40	Mar-27-19 15:40	Mar-27-19 15:40	Mar-27-19 15:40	Mar-27-19 15:40	Mar-27-19 16:00
	<i>Analyzed:</i>	Mar-27-19 21:42	Mar-27-19 21:48	Mar-28-19 08:44	Mar-27-19 22:02	Mar-27-19 22:08	Mar-27-19 22:48
	<i>Units/RL:</i>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		RL	RL	RL	RL	RL	RL
Chloride		<4.95 4.95	<4.95 4.95	13.0 4.95	8.72 4.95	96.1 4.95	15.0 5.00
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Mar-28-19 07:00	Mar-28-19 07:00	Mar-28-19 07:00	Mar-28-19 07:00	Mar-28-19 07:00	Mar-28-19 07:00
	<i>Analyzed:</i>	Mar-28-19 08:44	Mar-28-19 09:03	Mar-28-19 10:00	Mar-28-19 10:19	Mar-28-19 10:38	Mar-28-19 10:57
	<i>Units/RL:</i>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		RL	RL	RL	RL	RL	RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<14.9 14.9	<15.0 15.0
Diesel Range Organics (DRO)		1040 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	21.9 14.9	68.9 15.0
Motor Oil Range Hydrocarbons (MRO)		313 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<14.9 14.9	16.5 15.0
Total TPH		1350 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	21.9 14.9	85.4 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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*Brandi Ritcherson*

Brandi Ritcherson  
Project Manager





# Certificate of Analysis Summary 619079



HydroChemPSC (PSC), Morgan City, LA

Project Name: North Indian Flats 2b Fed 001

Project Id: XTO-995  
Contact: Perry Verret  
Project Location:

Date Received in Lab: Wed Mar-27-19 11:50 am  
Report Date: 29-MAR-19  
Project Manager: Brandi Ritcherson

<i>Analysis Requested</i>	<i>Lab Id:</i>	619079-007	619079-008	619079-009	619079-010	619079-011	619079-012
	<i>Field Id:</i>	South Wall Composite	West Wall Composite	East Wall Composite (For R	E1 (Release Retake)	E2 (Release Retake)	E3 (Release Retake)
	<i>Depth:</i>	0.3- ft	0.3- ft	0.3- ft	0.3- ft	0.3- ft	0.3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-25-19 08:10	Mar-25-19 08:00	Mar-25-19 08:15	Mar-25-19 09:00	Mar-25-19 08:55	Mar-25-19 08:50
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Mar-27-19 15:00	Mar-27-19 15:00	Mar-27-19 15:00	Mar-27-19 15:00	Mar-27-19 15:00	Mar-27-19 15:00
	<i>Analyzed:</i>	Mar-28-19 02:39	Mar-28-19 02:58	Mar-28-19 03:17	Mar-28-19 03:36	Mar-28-19 03:55	Mar-28-19 04:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00402 0.00402	<0.00400 0.00400	<0.00398 0.00398	<0.00403 0.00403	<0.00398 0.00398	<0.00399 0.00399
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	Mar-27-19 16:00	Mar-27-19 16:00	Mar-27-19 16:00	Mar-27-19 16:00	Mar-27-19 16:00	Mar-27-19 16:00
	<i>Analyzed:</i>	Mar-27-19 23:22	Mar-27-19 23:28	Mar-27-19 23:35	Mar-27-19 23:41	Mar-28-19 00:01	Mar-28-19 00:08
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		23.1 5.00	35.0 4.97	5.79 4.95	<4.98 4.98	<5.00 5.00	<5.00 5.00
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Mar-28-19 07:00	Mar-27-19 17:00	Mar-27-19 17:00	Mar-27-19 17:00	Mar-27-19 17:00	Mar-27-19 12:00
	<i>Analyzed:</i>	Mar-28-19 11:17	Mar-28-19 04:09	Mar-28-19 04:29	Mar-28-19 04:48	Mar-28-19 05:07	Mar-27-19 20:13
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		144 15.0	28.2 14.9	36.1 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Motor Oil Range Hydrocarbons (MRO)		32.2 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		176 15.0	28.2 14.9	36.1 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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*Brandi Ritcherson*

Brandi Ritcherson  
Project Manager

# Analytical Report 619079

## for HydroChemPSC (PSC)

**Project Manager: Perry Verret**

**North Indian Flats 2b Fed 001**

**XTO-995**

**29-MAR-19**

Collected By: Client



**1211 W. Florida Ave  
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)  
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)  
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)  
Xenco-Atlanta (LELAP Lab ID #04176)  
Xenco-Tampa: Florida (E87429), North Carolina (483)  
Xenco-Lakeland: Florida (E84098)



29-MAR-19

Project Manager: **Perry Verret**  
**HydroChemPSC (PSC)**  
PO Box 1529 Amelia, La 70340  
Morgan City, LA

Reference: XENCO Report No(s): **619079**  
**North Indian Flats 2b Fed 001**  
Project Address:

**Perry Verret:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 619079. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 619079 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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**Brandi Ritcherson**

Project Manager

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

*Certified and approved by numerous States and Agencies.*

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## Sample Cross Reference 619079



### HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
North Bottom Grab	S	03-25-19 08:05	0.3 ft	619079-001
Center Bottom Grab	S	03-25-19 08:35	0.3 ft	619079-002
South Bottom Grab	S	03-25-19 08:40	0.3 ft	619079-003
East Wall Grab	S	03-25-19 08:30	0.3 ft	619079-004
Bottom Composite	S	03-25-19 08:25	0.3 ft	619079-005
North Wall Composite	S	03-25-19 08:20	0.3 ft	619079-006
South Wall Composite	S	03-25-19 08:10	0.3 ft	619079-007
West Wall Composite	S	03-25-19 08:00	0.3 ft	619079-008
East Wall Composite (For Release)	S	03-25-19 08:15	0.3 ft	619079-009
E1 (Release Retake)	S	03-25-19 09:00	0.3 ft	619079-010
E2 (Release Retake)	S	03-25-19 08:55	0.3 ft	619079-011
E3 (Release Retake)	S	03-25-19 08:50	0.3 ft	619079-012



## CASE NARRATIVE

*Client Name: HydroChemPSC (PSC)*

*Project Name: North Indian Flats 2b Fed 001*

Project ID: XTO-995  
Work Order Number(s): 619079

Report Date: 29-MAR-19  
Date Received: 03/27/2019

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**Sample receipt non conformances and comments:**

None

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**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3083682 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 619079-005.



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **North Bottom Grab**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-001

Date Collected: 03.25.19 08.05

Sample Depth: 0.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: SPC

Date Prep: 03.27.19 15.40

Basis: Wet Weight

Seq Number: 3083706

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	03.27.19 21.42	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 03.28.19 07.00

Basis: Wet Weight

Seq Number: 3083750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.28.19 08.44	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>1040</b>	15.0	mg/kg	03.28.19 08.44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<b>313</b>	15.0	mg/kg	03.28.19 08.44		1
<b>Total TPH</b>	PHC635	<b>1350</b>	15.0	mg/kg	03.28.19 08.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.28.19 08.44	
o-Terphenyl	84-15-1	105	%	70-135	03.28.19 08.44	

## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **North Bottom Grab**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-001

Date Collected: 03.25.19 08.05

Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.27.19 15.00

Basis: Wet Weight

Seq Number: 3083682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.28.19 01.05	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.28.19 01.05	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.28.19 01.05	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.28.19 01.05	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.28.19 01.05	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.28.19 01.05	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.28.19 01.05	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	121	%	70-130	03.28.19 01.05		
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.28.19 01.05		





# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **Center Bottom Grab**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-002

Date Collected: 03.25.19 08.35

Sample Depth: 0.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: SPC

Date Prep: 03.27.19 15.40

Basis: Wet Weight

Seq Number: 3083706

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	03.27.19 21.48	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 03.28.19 07.00

Basis: Wet Weight

Seq Number: 3083750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.28.19 09.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.28.19 09.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.28.19 09.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.28.19 09.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.28.19 09.03	
o-Terphenyl	84-15-1	94	%	70-135	03.28.19 09.03	



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **Center Bottom Grab**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-002

Date Collected: 03.25.19 08.35

Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.27.19 15.00

Basis: Wet Weight

Seq Number: 3083682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.27.19 23.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.27.19 23.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.27.19 23.50	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.27.19 23.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.27.19 23.50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.27.19 23.50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.27.19 23.50	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	123	%	70-130	03.27.19 23.50		
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.27.19 23.50		



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **South Bottom Grab**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-003

Date Collected: 03.25.19 08.40

Sample Depth: 0.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: SPC

Date Prep: 03.27.19 15.40

Basis: Wet Weight

Seq Number: 3083706

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.0	4.95	mg/kg	03.28.19 08.44		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 03.28.19 07.00

Basis: Wet Weight

Seq Number: 3083750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.28.19 10.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.28.19 10.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.28.19 10.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.28.19 10.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.28.19 10.00	
o-Terphenyl	84-15-1	91	%	70-135	03.28.19 10.00	



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **South Bottom Grab**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-003

Date Collected: 03.25.19 08.40

Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.27.19 15.00

Basis: Wet Weight

Seq Number: 3083682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.28.19 00.09	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.28.19 00.09	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.28.19 00.09	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.28.19 00.09	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.28.19 00.09	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.28.19 00.09	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.28.19 00.09	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	115	%	70-130	03.28.19 00.09		
4-Bromofluorobenzene	460-00-4	122	%	70-130	03.28.19 00.09		



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **East Wall Grab**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-004

Date Collected: 03.25.19 08.30

Sample Depth: 0.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: SPC

Date Prep: 03.27.19 15.40

Basis: Wet Weight

Seq Number: 3083706

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8.72	4.95	mg/kg	03.27.19 22.02		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 03.28.19 07.00

Basis: Wet Weight

Seq Number: 3083750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	03.28.19 10.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	03.28.19 10.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	03.28.19 10.19	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	03.28.19 10.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.28.19 10.19	
o-Terphenyl	84-15-1	95	%	70-135	03.28.19 10.19	

## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **East Wall Grab**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-004

Date Collected: 03.25.19 08.30

Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.27.19 15.00

Basis: Wet Weight

Seq Number: 3083682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.28.19 00.28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.28.19 00.28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.28.19 00.28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.28.19 00.28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.28.19 00.28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.28.19 00.28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.28.19 00.28	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	125		%	70-130	03.28.19 00.28	
1,4-Difluorobenzene	540-36-3	115		%	70-130	03.28.19 00.28	



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **Bottom Composite**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-005

Date Collected: 03.25.19 08.25

Sample Depth: 0.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: SPC

Date Prep: 03.27.19 15.40

Basis: Wet Weight

Seq Number: 3083706

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	96.1	4.95	mg/kg	03.27.19 22.08		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 03.28.19 07.00

Basis: Wet Weight

Seq Number: 3083750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	03.28.19 10.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	21.9	14.9	mg/kg	03.28.19 10.38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	03.28.19 10.38	U	1
Total TPH	PHC635	21.9	14.9	mg/kg	03.28.19 10.38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.28.19 10.38	
o-Terphenyl	84-15-1	96	%	70-135	03.28.19 10.38	





# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **Bottom Composite**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-005

Date Collected: 03.25.19 08.25

Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.27.19 15.00

Basis: Wet Weight

Seq Number: 3083682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.28.19 00.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.28.19 00.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.28.19 00.47	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.28.19 00.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.28.19 00.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.28.19 00.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.28.19 00.47	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	147	%	70-130	03.28.19 00.47	**	
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.28.19 00.47		



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **North Wall Composite**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-006

Date Collected: 03.25.19 08.20

Sample Depth: 0.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 03.27.19 16.00

Basis: Wet Weight

Seq Number: 3083707

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.0	5.00	mg/kg	03.27.19 22.48		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 03.28.19 07.00

Basis: Wet Weight

Seq Number: 3083750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.28.19 10.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	68.9	15.0	mg/kg	03.28.19 10.57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	16.5	15.0	mg/kg	03.28.19 10.57		1
Total TPH	PHC635	85.4	15.0	mg/kg	03.28.19 10.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.28.19 10.57	
o-Terphenyl	84-15-1	92	%	70-135	03.28.19 10.57	

## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **North Wall Composite**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-006

Date Collected: 03.25.19 08.20

Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.27.19 15.00

Basis: Wet Weight

Seq Number: 3083682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.28.19 02.20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.28.19 02.20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.28.19 02.20	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.28.19 02.20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.28.19 02.20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.28.19 02.20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.28.19 02.20	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119		%	70-130	03.28.19 02.20	
1,4-Difluorobenzene	540-36-3	114		%	70-130	03.28.19 02.20	



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **South Wall Composite**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-007

Date Collected: 03.25.19 08.10

Sample Depth: 0.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 03.27.19 16.00

Basis: Wet Weight

Seq Number: 3083707

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.1	5.00	mg/kg	03.27.19 23.22		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 03.28.19 07.00

Basis: Wet Weight

Seq Number: 3083750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.28.19 11.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	144	15.0	mg/kg	03.28.19 11.17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	32.2	15.0	mg/kg	03.28.19 11.17		1
Total TPH	PHC635	176	15.0	mg/kg	03.28.19 11.17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.28.19 11.17	
o-Terphenyl	84-15-1	92	%	70-135	03.28.19 11.17	

## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **South Wall Composite**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-007

Date Collected: 03.25.19 08.10

Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.27.19 15.00

Basis: Wet Weight

Seq Number: 3083682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.28.19 02.39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.28.19 02.39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.28.19 02.39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.28.19 02.39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.28.19 02.39	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.28.19 02.39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.28.19 02.39	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.28.19 02.39		
4-Bromofluorobenzene	460-00-4	128	%	70-130	03.28.19 02.39		



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **West Wall Composite**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-008

Date Collected: 03.25.19 08.00

Sample Depth: 0.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 03.27.19 16.00

Basis: Wet Weight

Seq Number: 3083707

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35.0	4.97	mg/kg	03.27.19 23.28		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 03.27.19 17.00

Basis: Wet Weight

Seq Number: 3083699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	03.28.19 04.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	28.2	14.9	mg/kg	03.28.19 04.09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	03.28.19 04.09	U	1
Total TPH	PHC635	28.2	14.9	mg/kg	03.28.19 04.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	03.28.19 04.09	
o-Terphenyl	84-15-1	82	%	70-135	03.28.19 04.09	

## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **West Wall Composite**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-008

Date Collected: 03.25.19 08.00

Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.27.19 15.00

Basis: Wet Weight

Seq Number: 3083682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.28.19 02.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.28.19 02.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.28.19 02.58	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.28.19 02.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.28.19 02.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.28.19 02.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.28.19 02.58	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	126	%	70-130	03.28.19 02.58		
1,4-Difluorobenzene	540-36-3	114	%	70-130	03.28.19 02.58		





# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **East Wall Composite (For Release)**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-009

Date Collected: 03.25.19 08.15

Sample Depth: 0.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 03.27.19 16.00

Basis: Wet Weight

Seq Number: 3083707

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5.79	4.95	mg/kg	03.27.19 23.35		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 03.27.19 17.00

Basis: Wet Weight

Seq Number: 3083699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.28.19 04.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	36.1	15.0	mg/kg	03.28.19 04.29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.28.19 04.29	U	1
Total TPH	PHC635	36.1	15.0	mg/kg	03.28.19 04.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	03.28.19 04.29	
o-Terphenyl	84-15-1	83	%	70-135	03.28.19 04.29	



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **East Wall Composite (For Release)**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-009

Date Collected: 03.25.19 08.15

Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.27.19 15.00

Basis: Wet Weight

Seq Number: 3083682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.28.19 03.17	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.28.19 03.17	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.28.19 03.17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.28.19 03.17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.28.19 03.17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.28.19 03.17	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.28.19 03.17	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	124	%	70-130	03.28.19 03.17		
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.28.19 03.17		



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **E1 (Release Retake)**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-010

Date Collected: 03.25.19 09.00

Sample Depth: 0.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 03.27.19 16.00

Basis: Wet Weight

Seq Number: 3083707

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	03.27.19 23.41	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 03.27.19 17.00

Basis: Wet Weight

Seq Number: 3083699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.28.19 04.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.28.19 04.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.28.19 04.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.28.19 04.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	03.28.19 04.48	
o-Terphenyl	84-15-1	76	%	70-135	03.28.19 04.48	



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **E1 (Release Retake)**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-010

Date Collected: 03.25.19 09.00

Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.27.19 15.00

Basis: Wet Weight

Seq Number: 3083682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.28.19 03.36	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.28.19 03.36	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.28.19 03.36	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.28.19 03.36	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.28.19 03.36	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.28.19 03.36	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.28.19 03.36	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	122	%	70-130	03.28.19 03.36		
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.28.19 03.36		



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **E2 (Release Retake)**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-011

Date Collected: 03.25.19 08.55

Sample Depth: 0.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 03.27.19 16.00

Basis: Wet Weight

Seq Number: 3083707

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	03.28.19 00.01	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 03.27.19 17.00

Basis: Wet Weight

Seq Number: 3083699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.28.19 05.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.28.19 05.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.28.19 05.07	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.28.19 05.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	03.28.19 05.07	
o-Terphenyl	84-15-1	78	%	70-135	03.28.19 05.07	



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **E2 (Release Retake)**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-011

Date Collected: 03.25.19 08.55

Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.27.19 15.00

Basis: Wet Weight

Seq Number: 3083682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.28.19 03.55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.28.19 03.55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.28.19 03.55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.28.19 03.55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.28.19 03.55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.28.19 03.55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.28.19 03.55	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.28.19 03.55		
4-Bromofluorobenzene	460-00-4	123	%	70-130	03.28.19 03.55		



# Certificate of Analytical Results 619079



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **E3 (Release Retake)**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-012

Date Collected: 03.25.19 08.50

Sample Depth: 0.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 03.27.19 16.00

Basis: Wet Weight

Seq Number: 3083707

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	03.28.19 00.08	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 03.27.19 12.00

Basis: Wet Weight

Seq Number: 3083698

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.27.19 20.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.27.19 20.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.27.19 20.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.27.19 20.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	03.27.19 20.13	
o-Terphenyl	84-15-1	82	%	70-135	03.27.19 20.13	



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flats 2b Fed 001

Sample Id: **E3 (Release Retake)**

Matrix: Soil

Date Received: 03.27.19 11.50

Lab Sample Id: 619079-012

Date Collected: 03.25.19 08.50

Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.27.19 15.00

Basis: Wet Weight

Seq Number: 3083682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.28.19 04.14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.28.19 04.14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.28.19 04.14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.28.19 04.14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.28.19 04.14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.28.19 04.14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.28.19 04.14	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	126	%	70-130	03.28.19 04.14		
1,4-Difluorobenzene	540-36-3	114	%	70-130	03.28.19 04.14		

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit

**SDL** Sample Detection Limit

**LOD** Limit of Detection

**PQL** Practical Quantitation Limit

**MQL** Method Quantitation Limit

**LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample

**BLK**

Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample

**BKSD/LCSD**

Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate

**MS**

Matrix Spike

**MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



## QC Summary 619079

### HydroChemPSC (PSC) North Indian Flats 2b Fed 001

**Analytical Method: Chloride by EPA 300**

Seq Number: 3083706

MB Sample Id: 7674465-1-BLK

Matrix: Solid

LCS Sample Id: 7674465-1-BKS

Prep Method: E300P

Date Prep: 03.27.19

LCSD Sample Id: 7674465-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	256	102	249	100	90-110	3	20	mg/kg	03.27.19 18:55	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3083706

MB Sample Id: 7674466-1-BLK

Matrix: Solid

LCS Sample Id: 7674466-1-BKS

Prep Method: E300P

Date Prep: 03.27.19

LCSD Sample Id: 7674466-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	255	102	257	103	90-110	1	20	mg/kg	03.27.19 22:35	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3083706

Parent Sample Id: 619078-002

Matrix: Soil

MS Sample Id: 619078-002 S

Prep Method: E300P

Date Prep: 03.27.19

MSD Sample Id: 619078-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	131	252	377	98	390	103	90-110	3	20	mg/kg	03.27.19 19:15	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3083706

Parent Sample Id: 619078-012

Matrix: Soil

MS Sample Id: 619078-012 S

Prep Method: E300P

Date Prep: 03.27.19

MSD Sample Id: 619078-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	223	250	474	100	467	98	90-110	1	20	mg/kg	03.27.19 20:48	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3083707

Parent Sample Id: 618909-012

Matrix: Soil

MS Sample Id: 618909-012 S

Prep Method: E300P

Date Prep: 03.27.19

MSD Sample Id: 618909-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.22	248	265	105	245	97	90-110	8	20	mg/kg	03.28.19 00:41	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



## QC Summary 619079

### HydroChemPSC (PSC) North Indian Flats 2b Fed 001

**Analytical Method: Chloride by EPA 300**

Seq Number: 3083707

Parent Sample Id: 619079-006

Matrix: Soil

MS Sample Id: 619079-006 S

Prep Method: E300P

Date Prep: 03.27.19

MSD Sample Id: 619079-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	15.0	250	263	99	266	100	90-110	1	20	mg/kg	03.27.19 22:55	

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3083698

MB Sample Id: 7674533-1-BLK

Matrix: Solid

LCS Sample Id: 7674533-1-BKS

Prep Method: TX1005P

Date Prep: 03.27.19

LCSD Sample Id: 7674533-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	946	95	1010	101	70-135	7	20	mg/kg	03.27.19 12:12	
Diesel Range Organics (DRO)	<8.13	1000	982	98	1050	105	70-135	7	20	mg/kg	03.27.19 12:12	

**Surrogate**

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		126		129		70-135	%	03.27.19 12:12
o-Terphenyl	91		102		109		70-135	%	03.27.19 12:12

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3083699

MB Sample Id: 7674534-1-BLK

Matrix: Solid

LCS Sample Id: 7674534-1-BKS

Prep Method: TX1005P

Date Prep: 03.27.19

LCSD Sample Id: 7674534-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1000	100	951	95	70-135	5	20	mg/kg	03.27.19 21:10	
Diesel Range Organics (DRO)	<8.13	1000	1040	104	1010	101	70-135	3	20	mg/kg	03.27.19 21:10	

**Surrogate**

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		124		118		70-135	%	03.27.19 21:10
o-Terphenyl	90		109		103		70-135	%	03.27.19 21:10

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3083750

MB Sample Id: 7674566-1-BLK

Matrix: Solid

LCS Sample Id: 7674566-1-BKS

Prep Method: TX1005P

Date Prep: 03.28.19

LCSD Sample Id: 7674566-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	939	94	945	95	70-135	1	20	mg/kg	03.28.19 08:06	
Diesel Range Organics (DRO)	<8.13	1000	958	96	981	98	70-135	2	20	mg/kg	03.28.19 08:06	

**Surrogate**

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		127		126		70-135	%	03.28.19 08:06
o-Terphenyl	97		106		120		70-135	%	03.28.19 08:06

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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

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



## QC Summary 619079

### HydroChemPSC (PSC) North Indian Flats 2b Fed 001

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3083698

Parent Sample Id: 619076-001

Matrix: Soil

MS Sample Id: 619076-001 S

Prep Method: TX1005P

Date Prep: 03.27.19

MSD Sample Id: 619076-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	9.02	998	903	90	916	91	70-135	1	20	mg/kg	03.27.19 13:10	
Diesel Range Organics (DRO)	<8.11	998	947	95	956	96	70-135	1	20	mg/kg	03.27.19 13:10	
<b>Surrogate</b>			<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>	
1-Chlorooctane			120		121		70-135			%	03.27.19 13:10	
o-Terphenyl			100		97		70-135			%	03.27.19 13:10	

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3083699

Parent Sample Id: 619078-001

Matrix: Soil

MS Sample Id: 619078-001 S

Prep Method: TX1005P

Date Prep: 03.27.19

MSD Sample Id: 619078-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	11.4	999	890	88	901	89	70-135	1	20	mg/kg	03.27.19 22:07	
Diesel Range Organics (DRO)	<8.12	999	923	92	943	95	70-135	2	20	mg/kg	03.27.19 22:07	
<b>Surrogate</b>			<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>	
1-Chlorooctane			111		113		70-135			%	03.27.19 22:07	
o-Terphenyl			88		90		70-135			%	03.27.19 22:07	

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3083750

Parent Sample Id: 619079-002

Matrix: Soil

MS Sample Id: 619079-002 S

Prep Method: TX1005P

Date Prep: 03.28.19

MSD Sample Id: 619079-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<7.99	999	1010	101	1020	102	70-135	1	20	mg/kg	03.28.19 09:22	
Diesel Range Organics (DRO)	<8.12	999	1030	103	1040	104	70-135	1	20	mg/kg	03.28.19 09:22	
<b>Surrogate</b>			<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>	
1-Chlorooctane			125		123		70-135			%	03.28.19 09:22	
o-Terphenyl			119		113		70-135			%	03.28.19 09:22	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



## QC Summary 619079

### HydroChemPSC (PSC) North Indian Flats 2b Fed 001

Analytical Method: BTEX by EPA 8021B

Seq Number: 3083682

MB Sample Id: 7674452-1-BLK

Matrix: Solid

LCS Sample Id: 7674452-1-BKS

Prep Method: SW5030B

Date Prep: 03.27.19

LCSD Sample Id: 7674452-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.130	129	0.123	123	70-130	6	35	mg/kg	03.27.19 20:22	
Toluene	<0.00201	0.101	0.129	128	0.123	123	70-130	5	35	mg/kg	03.27.19 20:22	
Ethylbenzene	<0.000568	0.101	0.110	109	0.105	105	70-130	5	35	mg/kg	03.27.19 20:22	
m,p-Xylenes	<0.00102	0.201	0.215	107	0.208	105	70-130	3	35	mg/kg	03.27.19 20:22	
o-Xylene	<0.00201	0.101	0.109	108	0.105	105	70-130	4	35	mg/kg	03.27.19 20:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	117		109		109		70-130	%	03.27.19 20:22
4-Bromofluorobenzene	116		110		108		70-130	%	03.27.19 20:22

Analytical Method: BTEX by EPA 8021B

Seq Number: 3083682

Parent Sample Id: 619078-012

Matrix: Soil

MS Sample Id: 619078-012 S

Prep Method: SW5030B

Date Prep: 03.27.19

MSD Sample Id: 619078-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.117	117	0.120	119	70-130	3	35	mg/kg	03.27.19 21:00	
Toluene	<0.000457	0.100	0.117	117	0.118	117	70-130	1	35	mg/kg	03.27.19 21:00	
Ethylbenzene	<0.000567	0.100	0.0999	100	0.100	99	70-130	0	35	mg/kg	03.27.19 21:00	
m,p-Xylenes	<0.00102	0.201	0.197	98	0.198	98	70-130	1	35	mg/kg	03.27.19 21:00	
o-Xylene	<0.000346	0.100	0.0991	99	0.0997	99	70-130	1	35	mg/kg	03.27.19 21:00	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		112		70-130	%	03.27.19 21:00
4-Bromofluorobenzene	114		115		70-130	%	03.27.19 21:00

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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









Page 1 of 1

Work Order Comments	
Program: UST/PT <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

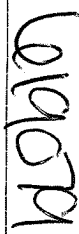
[illegible][illegible]

Total	200.7 / 6010	200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti Sn U V Zn TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	1631 / 245.1 / 7470 / 7471 : Hq

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		8/28/19 9:30a			8/27/19
					8/27/19





















Page \_\_\_\_\_ of \_\_\_\_\_

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

[illegible][illegible]

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
					
		3/23/19 9:50a			3/27/19 11:50
					
					



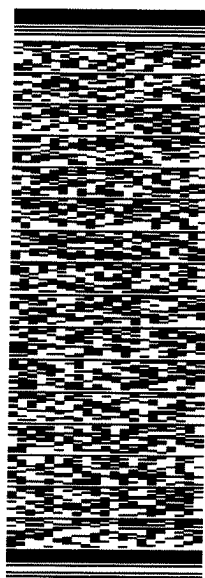
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SHIP DATE: 26MAR19  
ACTWGT: 65.00 LB  
CAD: 101813706/NET4100  
DIMS: 22x15x16 IN  
BILL RECIPIENT

TO HOLD FOR XENCO

FEDEX EXPRESS SHIP CENTER  
FEDEX SHIP CENTER  
3600 COUNTY RD 1276 S

MIDLAND TX 79711  
(806) 794-1296  
REF:  
PO: NV  
DEPT:



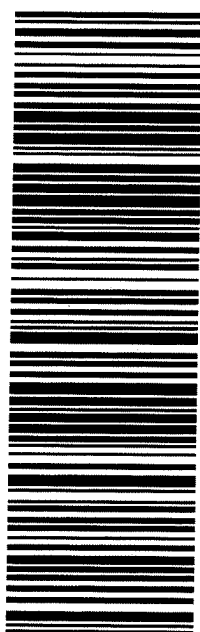
J18181370610701ur

TRK#  
0201 7748 0498 0114

WED - 27 MAR HOLD  
STANDARD OVERNIGHT

41 MAFA

HLD  
MAFA  
TX-US LBB



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# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



Client: HydroChemPSC (PSC)

Date/ Time Received: 03/27/2019 11:50:00 AM

Work Order #: 619079

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

### Sample Receipt Checklist

### Comments

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

*Brianna Teel*

Brianna Teel

Date: 03/27/2019

Checklist reviewed by:

*Brandi Ritcherson*

Brandi Ritcherson

Date: 03/27/2019



# Certificate of Analysis Summary 619714

HydroChemPSC (PSC), Morgan City, LA

Project Name: North Indian Flat 26 Fed 1



Project Id: XTO-995  
Contact: Perry Verret  
Project Location:

Date Received in Lab: Tue Apr-02-19 11:45 am  
Report Date: 03-APR-19  
Project Manager: Brandi Ritcherson

<b>Analysis Requested</b>	<b>Lab Id:</b>	619714-001	619714-002				
	<b>Field Id:</b>	North Bottom Grab (Retake)	South Wall Grab (Retake)				
	<b>Depth:</b>	0-3 ft	0-3 ft				
	<b>Matrix:</b>	SOIL	SOIL				
	<b>Sampled:</b>	Mar-29-19 10:00	Mar-29-19 13:50				
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b>	Apr-02-19 16:00	Apr-02-19 16:00				
	<b>Analyzed:</b>	Apr-03-19 00:39	Apr-03-19 00:58				
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		17.0	14.9	23.3	14.9		
Diesel Range Organics (DRO)		<14.9	14.9	<14.9	14.9		
Motor Oil Range Hydrocarbons (MRO)		<14.9	14.9	<14.9	14.9		
Total TPH		17.0	14.9	23.3	14.9		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.  
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.  
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.  
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Version: 1.9%

Brandi Ritcherson  
Project Manager

# Analytical Report 619714

## for HydroChemPSC (PSC)

**Project Manager: Perry Verret**

**North Indian Flat 26 Fed 1**

**XTO-995**

**03-APR-19**

Collected By: Client



**1211 W. Florida Ave  
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)  
Xenco-San Antonio (EPA Lab Code: TNi02385): Texas (T104704534-18-4)  
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)  
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)  
Xenco-Atlanta (LELAP Lab ID #04176)  
Xenco-Tampa: Florida (E87429), North Carolina (483)  
Xenco-Lakeland: Florida (E84098)



03-APR-19

Project Manager: **Perry Verret**  
**HydroChemPSC (PSC)**  
PO Box 1529 Amelia, La 70340  
Morgan City, LA

Reference: XENCO Report No(s): **619714**  
**North Indian Flat 26 Fed 1**  
Project Address:

**Perry Verret:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 619714. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 619714 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

---

**Brandi Ritcherson**

Project Manager

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

*Certified and approved by numerous States and Agencies.*

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

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



**Sample Cross Reference 619714**  
**HydroChemPSC (PSC), Morgan City, LA**  
North Indian Flat 26 Fed 1



Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
North Bottom Grab (Retake)	S	03-29-19 10:00	0 - 3 ft	619714-001
South Wall Grab (Retake)	S	03-29-19 13:50	0 - 3 ft	619714-002



## CASE NARRATIVE

*Client Name: HydroChemPSC (PSC)*

*Project Name: North Indian Flat 26 Fed 1*

Project ID: XTO-995  
Work Order Number(s): 619714

Report Date: 03-APR-19  
Date Received: 04/02/2019

---

**Sample receipt non conformances and comments:**

None

---

**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analytical Results 619714



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flat 26 Fed 1

Sample Id: **North Bottom Grab (Retake)**

Matrix: Soil

Date Received: 04.02.19 11.45

Lab Sample Id: 619714-001

Date Collected: 03.29.19 10.00

Sample Depth: 0 - 3 ft

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 04.02.19 16.00

Basis: Wet Weight

Seq Number: 3084425

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>17.0</b>	14.9	mg/kg	04.03.19 00.39		1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	04.03.19 00.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	04.03.19 00.39	U	1
<b>Total TPH</b>	PHC635	<b>17.0</b>	14.9	mg/kg	04.03.19 00.39		1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	89	%	70-135	04.03.19 00.39		
o-Terphenyl	84-15-1	85	%	70-135	04.03.19 00.39		





# Certificate of Analytical Results 619714



## HydroChemPSC (PSC), Morgan City, LA

North Indian Flat 26 Fed 1

Sample Id: **South Wall Grab (Retake)**

Matrix: Soil

Date Received: 04.02.19 11.45

Lab Sample Id: 619714-002

Date Collected: 03.29.19 13.50

Sample Depth: 0 - 3 ft

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 04.02.19 16.00

Basis: Wet Weight

Seq Number: 3084425

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>23.3</b>	14.9	mg/kg	04.03.19 00.58		1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	04.03.19 00.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	04.03.19 00.58	U	1
<b>Total TPH</b>	PHC635	<b>23.3</b>	14.9	mg/kg	04.03.19 00.58		1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	83	%	70-135	04.03.19 00.58		
o-Terphenyl	84-15-1	78	%	70-135	04.03.19 00.58		

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit

**SDL** Sample Detection Limit

**LOD** Limit of Detection

**PQL** Practical Quantitation Limit

**SQL** Method Quantitation Limit

**LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample

**BLK**

Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample

**BKSD/LCSD**

Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate

**MS**

Matrix Spike

**MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



## QC Summary 619714

### HydroChemPSC (PSC)

North Indian Flat 26 Fed 1

**Analytical Method:** TPH By SW8015 Mod

Seq Number: 3084425

MB Sample Id: 7674881-1-BLK

Matrix: Solid

LCS Sample Id: 7674881-1-BKS

Prep Method: TX1005P

Date Prep: 04.02.19

LCSD Sample Id: 7674881-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1020	102	1150	115	70-135	12	20	mg/kg	04.02.19 22:22	
Diesel Range Organics (DRO)	<8.13	1000	1130	113	1210	121	70-135	7	20	mg/kg	04.02.19 22:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		118		98		70-135	%	04.02.19 22:22
o-Terphenyl	95		112		128		70-135	%	04.02.19 22:22

**Analytical Method:** TPH By SW8015 Mod

Seq Number: 3084425

Parent Sample Id: 619640-001

Matrix: Soil

MS Sample Id: 619640-001 S

Prep Method: TX1005P

Date Prep: 04.02.19

MSD Sample Id: 619640-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	8.61	996	990	99	1120	111	70-135	12	20	mg/kg	04.02.19 23:21	
Diesel Range Organics (DRO)	10.7	996	1070	106	1140	113	70-135	6	20	mg/kg	04.02.19 23:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		129		70-135	%	04.02.19 23:21
o-Terphenyl	109		107		70-135	%	04.02.19 23:21

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 $Log\ Diff. = Log(Sample\ Duplicate) - Log(Original\ Sample)$

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

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



## Chain of Custody

**Work Order No.**

1979

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

Page of  
www.xenco.com

Project Manager:	Perry Wendt		Bill to: (if different)	
Company Name:	Hydrochem Inc		Company Name:	
Address:	PO Box 529		Address:	
City, State ZIP:	Amelia, La. 70340		City, State ZIP:	
Phone:	885/231-0644	Email:	Perry, Wendt & Hydrochem Associates	

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/>	ADAPT <input type="checkbox"/> Other:

Project Name:	North Indian Hills Fed 1					Turn Around
Project Number:	X70-995					Routine <input type="checkbox"/>
P.O. Number:	18103292019					Rush: 1 Day
Sampler's Name:	Philip Venzel					Due Date:

ANALYSIS REQUEST						Work Order Notes																														
<table border="1"> <tr> <th colspan="2">SAMPLE RECEIPT</th> <th>Temp Blank:</th> <th>Yes (No)</th> <th>Wet Ice:</th> <th>Yes (No)</th> </tr> <tr> <td>Temperature (°C):</td> <td>0.5/0.4</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Received Intact:</td> <td>(Yes) No</td> <td></td> <td></td> <td>Thermometer:</td> <td>PC</td> </tr> <tr> <td>Cooler Custody Seals:</td> <td>Yes (No) N/A</td> <td></td> <td></td> <td>Correction Factor:</td> <td>-0.1</td> </tr> <tr> <td>Sample Custody Seals:</td> <td>Yes (No) N/A</td> <td></td> <td></td> <td>Total Containers:</td> <td></td> </tr> </table>						SAMPLE RECEIPT		Temp Blank:	Yes (No)	Wet Ice:	Yes (No)	Temperature (°C):	0.5/0.4					Received Intact:	(Yes) No			Thermometer:	PC	Cooler Custody Seals:	Yes (No) N/A			Correction Factor:	-0.1	Sample Custody Seals:	Yes (No) N/A			Total Containers:		Number of Containers PH
SAMPLE RECEIPT		Temp Blank:	Yes (No)	Wet Ice:	Yes (No)																															
Temperature (°C):	0.5/0.4																																			
Received Intact:	(Yes) No			Thermometer:	PC																															
Cooler Custody Seals:	Yes (No) N/A			Correction Factor:	-0.1																															
Sample Custody Seals:	Yes (No) N/A			Total Containers:																																
TAT starts the day received by the lab, if received by 4:30pm																																				

[illegible][illegible]

**Notice:** Signature of this document and reimbursement of samples constitutes a valid purchase order from client company to Xenoco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenoco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenoco. A minimum charge of \$75.00 will be applied to each project and a charge of \$3 for each sample submitted to Xenoco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		3/29/19 10:30A			4/1/19 1503

ORIGIN ID:CAOA (575) 887-6245  
XENCO  
PAC N MAIL  
910 W PIERCE ST  
CARLSBAD NM 88220  
UNITED STATES US

SHIP DATE: 01APR19  
ACTWGT: 36.00 LB  
CAD: 101813706IN/ET4100  
DIMS: 24x15x13 IN  
BILL RECIPIENT

TO HOLD FOR XENCO

FEDEX EXPRESS SHIP CENTER  
FEDEX SHIP CENTER  
3600 COUNTY RD 1276 S

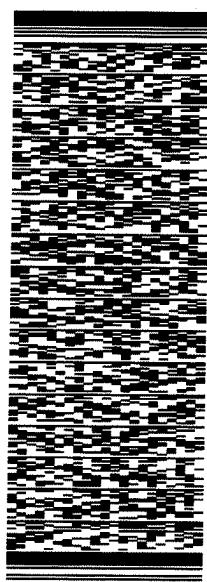
MIDLAND TX 79711

(800) 794-1296

REF:

PO:

DEPT:



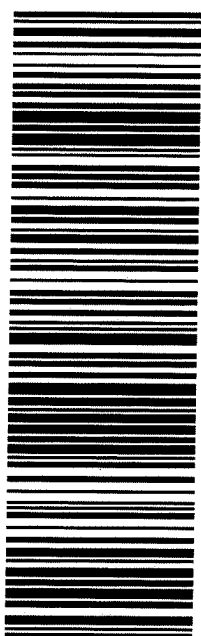
565J11D7E5/23AD

TRK#  
0201 7748 5441 3622

TUE - 02 APR HOLD  
STANDARD OVERNIGHT

41 MAFA

HLD  
MAFA  
TX-US LBB



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# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



Client: HydroChemPSC (PSC)

Date/ Time Received: 04/02/2019 11:45:00 AM

Work Order #: 619714

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

### Sample Receipt Checklist

### Comments

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

*Brianna Teel*

Brianna Teel

Date: 04/02/2019

Checklist reviewed by:

*Brandi Ritcherson*

Brandi Ritcherson

Date: 04/02/2019

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

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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141

Revised August 8, 2011

OCT 08 2014

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

RECEIVED

Release Notification and Corrective Action

NAB1428133861

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 2100737 Contact: Tony Savoie  
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220 Telephone No. 575-887-7329  
Facility Name: North Indian Flats 26 Federal #1 Facility Type: Exploration and Production

Surface Owner: Federal Mineral Owner: Federal API No. 30-015-27556

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	26	21S	28E	2150	North	1980	East	Eddy

Latitude N 32.452537 Longitude W 104.054648

NATURE OF RELEASE

Type of Release: Crude oil and Produced water	Volume of Release: 2 bbls crude oil and 8 bbls produced water	Volume Recovered: 1 bbl crude oil and 4 bbls produced water
Source of Release: Flange gasket on water transfer pump.	Date and Hour of Occurrence: 9/24/14 time unknown	Date and Hour of Discovery: 9/24/14 at approximately 2:20 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? M. Bratcher, H. Patterson and Jim Amos	
By Whom? Tony Savoie	Date and Hour: 9/24/14 at 2:46 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* A flange gasket failed on the water transfer pump. The flange gasket was replaced.

Describe Area Affected and Cleanup Action Taken.\* The spill affected approximately 450 sq. ft. of earthen containment berm around the water storage tank. The spill area will be remediated following the NMOCD and BLM guidelines for spills and releases.

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

OIL CONSERVATION DIVISION

Signature: Tony Savoie

Printed Name: Tony Savoie

Title: Waste Management and Remediation Specialist

E-mail Address: tasavoie@basspet.com

Date: 10/7/14

Phone: 432-556-8730

Approved by Environmental Specialist

Signed By: Mike Bratcher

Approval Date: 10/8/14

Expiration Date: N/A

Conditions of Approval:

Attached ☐

Remediation per O.C.D. Rules & Guidelines

SUBMIT REMEDIATION PROPOSAL NO

ATER THAN: 11/8/14

\* Attach Additional Sheets If Necessary

2RP-2523

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	
District RP	2RP-2523
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #:
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

### Location of Release Source

Latitude 32.452537 Longitude -104.054648  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name North Indian Flats 26 Federal #1	Site Type Exploration and Production
Date Release Discovered 9/24/2014	API# (if applicable) 30-015-27556

Unit Letter	Section	Township	Range	County
G	26	21S	28E	Eddy

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

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 2	Volume Recovered (bbls) 1
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 8	Volume Recovered (bbls) 4
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

A flange gasket failed on the water transfer pump. The flange gasket was replaced. The spill affected approximately 450 sq. ft. of earthen containment berm around the water storage tank.




State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-2523
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:  	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Kyle Littrell</u>	Title: <u>SH&amp;E Supervisor</u>
Signature: 	Date: <u>8/28/2019</u>
email: <u>Kyle.Littrell@xtoenergy.com</u>	Telephone: <u>432-221-7331</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____	

Incident ID	
District RP	2RP-2523
Facility ID	
Application ID	

## Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-2523
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 8/28/2019

email: Kyle\_Littrell@xtoenergy.com Telephone: (432)-221-7331

**OCD Only**

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

Incident ID	
District RP	2RP-2523
Facility ID	
Application ID	

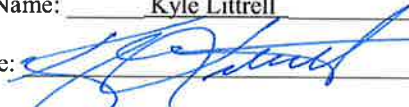
## Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor  
 Signature:  Date: 8/28/2019  
 email: Kyle.Littrell@xtoenergy.com Telephone: 432-221-7331

### OCD Only

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

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

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

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

JAN 21 2015

Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

NAB1502633538

**OPERATOR**

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. <u>260737</u>	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: North Indian Flats 26 Federal #1	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-27556
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**LOCATION OF RELEASE**

Unit Letter G	Section 26	Township 21S	Range 28E	Feet from the 2150	North/South Line North	Feet from the 1980	East/West Line East	County Eddy
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Latitude N 32.452537 Longitude W 104.054648

**NATURE OF RELEASE**

Type of Release: Produced water	Volume of Release: 7 bbls produced water	Volume Recovered: 4 bbls produced water
Source of Release: Air Eliminator	Date and Hour of Occurrence 1/12/15 time unknown	Date and Hour of Discovery: 1/12/15 approximately 1:17 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? M. Bratcher, H. Patterson and Jim Amos	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* An air eliminator on the water transfer pump failed, the part was replaced.

Describe Area Affected and Cleanup Action Taken.\* The spill affected approximately 450 sq. ft. of earthen containment berm around the water storage tank. Same area impacted as previous spill on 9/24/14, reference spill report #2RP-2523. The spill area will be remediated following the NMOCD and BLM guidelines for spills and releases.

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

**OIL CONSERVATION DIVISION**

Signature: <u>Tony Savoie</u>	Approved by Environmental Specialist: <u>[Signature]</u>	
Printed Name: Tony Savoie	Approval Date: <u>1/23/15</u>	Expiration Date: <u>NA</u>
Title: Waste Management and Remediation Specialist	Conditions of Approval:	
E-mail Address: <u>tasavoie@basspet.com</u>	Remediation per O.C.D. Rules & Guidelines	
Date: <u>1/21/15</u> Phone: 432-556-8730	SUBMIT REMEDIATION PROPOSAL NO	
	Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

LATER THAN: 2/23/15

2RP-2759

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	
District RP	2RP-2759
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #:
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

### Location of Release Source

Latitude 32.452537 \_\_\_\_\_ Longitude -104.054648 \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name North Indian Flats 26 Federal #1	Site Type Exploration and Production
Date Release Discovered 1/12/2015	API# (if applicable) 30-015-27556

Unit Letter	Section	Township	Range	County
G	26	21S	28E	Eddy

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

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 7	Volume Recovered (bbls) 4
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

An air eliminator on the water transfer pump failed, the part was replaced. The spill affected approximately 450 sq. ft. of earthen containment berm around the water storage tank. The area impacted is the same as previous spill on 9/24/2014, reference spill report 2RP-2523.


State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-2759
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:   	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Kyle Littrell</u>	Title: <u>SH&amp;E Supervisor</u>
Signature: 	Date: <u>8/28/2019</u>
email: <u>Kyle.Littrell@xtoenergy.com</u>	Telephone: <u>432-221-7331</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____	

Incident ID	
District RP	2RP-2759
Facility ID	
Application ID	

## Site Assessment/Characterization

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

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

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

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

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

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



State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-2759
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 8/28/2019

email: Kyle\_Littrell@xtoenergy.com Telephone: (432)-221-7331

**OCD Only**

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

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-2759
Facility ID	
Application ID	

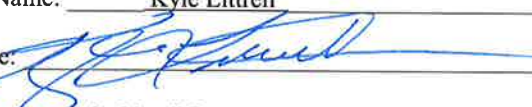
## Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor  
 Signature:  Date: 8/28/2019  
 email: Kyle.Littrell@xtoenergy.com Telephone: 432-221-7331

**OCD Only**

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

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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

# NM OIL CONSERVATION

ARTESIA DISTRICT

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

State of New Mexico  
Energy Minerals and Natural Resources

JAN 09 2017

Form C-141  
Revised August 8, 2011

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.

RECEIVED

## Release Notification and Corrective Action

DAB1701052774		OPERATOR		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company: BOPCO, L.P. 210731		Contact: Amy Ruth			
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220		Telephone No. 575-887-7329			
Facility Name: North Indian Flats 26 Federal #1		Facility Type: Exploration and Production			
Surface Owner: Federal		Mineral Owner: Federal		API No. 30-015-27556	

## LOCATION OF RELEASE

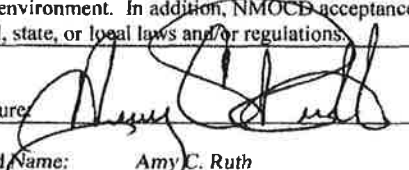

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	26	21S	28E	2100	North	1850	East	Eddy

Latitude 32.452595° Longitude -104.054825°

## NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	21 bbls	Volume Recovered	5 bbls
Source of Release	Pinhole in valve	Date and Hour of Occurrence	12/22/2016 time unknown	Date and Hour of Discovery	12/22/2016 10 am
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	N/A		
By Whom?	N/A	Date and Hour	N/A		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	N/A		
If a Watercourse was Impacted, Describe Fully.* N/A					
Describe Cause of Problem and Remedial Action Taken.* The body of a check valve developed a pinhole due to corrosion and fluids were released to the well location. The failed check valve was replaced.					
Describe Area Affected and Cleanup Action Taken.* The leak affected 2731 square feet of caliche pad and free standing fluids were immediately recovered.					

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

Signature: 		OIL CONSERVATION DIVISION	
Printed Name: Amy C. Ruth		Approved by Environmental Specialist: 	
Title: EHS Environmental Supervisor	Approval Date: 1/10/17	Expiration Date: N/A	
E-mail Address: ACRuth@basspet.com	Conditions of Approval: See attached		Attached <input type="checkbox"/>
Date: 1/9/2017	Phone: 432-661-0571		

\* Attach Additional Sheets If Necessary

2RP-4066

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	
District RP	2RP-4066
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #:
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

### Location of Release Source

Latitude 32.452595 Longitude -104.054825  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name North Indian Flats 26 Federal #1	Site Type Exploration and Production
Date Release Discovered 12/22/2016	API# (if applicable) 30-015-27556

Unit Letter	Section	Township	Range	County
G	26	21S	28E	Eddy

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

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 21	Volume Recovered (bbls) 5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

The body of a check valve developed a pinhole due to corrosion and fluids were released to the well location. The failed check valve was replaced. The leak affected approximately 2,731 square feet of caliche pad and free standing fluids were immediately recovered.


State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-4066
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

**Initial Response**

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:          	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Kyle Littrell</u>	Title: <u>SH&amp;E Supervisor</u>
Signature: 	Date: <u>8/28/2019</u>
email: <u>Kyle.Littrell@xtoenergy.com</u>	Telephone: <u>432-221-7331</u>
<b><u>OCD Only</u></b>	
Received by: _____	Date: _____

Incident ID	
District RP	2RP-4066
Facility ID	
Application ID	

## Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-4066
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: 

Date: 8/28/2019

email: Kyle\_Littrell@xtoenergy.com

Telephone: (432)-221-7331

**OCD Only**

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

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

Incident ID	
District RP	2RP-4066
Facility ID	
Application ID	

## Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 8/28/2019

email: Kyle.Littrell@xtoenergy.com Telephone: 432-221-7331

### OCD Only

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

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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



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

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

Form C-141  
Revised April 3, 2017

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

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: XTO Energy BOPCO OGRID: 260737	Contact: Kyle Littrell
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No: 432-221-7331
Facility Name: North Indian Flats 26 Federal #1	Facility Type: Exploration and Production
Surface Owner: Federal	Mineral Owner: Federal
API No: 30-015-27556	

#### LOCATION OF RELEASE

Unit Letter G	Section 26	Township 21S	Range 28E	Feet from the 2150	North/South Line North	Feet from the 1980	East/West Line East	County Eddy
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Latitude 32.452295 Longitude -103.054719 NAD83

#### NATURE OF RELEASE

Type of Release Oil	Volume of Release 7bbl oil	Volume Recovered 4bbl oil
Source of Release Oil tank	Date and Hour of Occurrence 7/26/2018, 10:00 AM	Date and Hour of Discovery 7/26/2018, 10:00 AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour: N/A	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.\*  
N/A

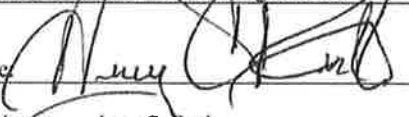
Describe Cause of Problem and Remedial Action Taken.\*

Crew was attempting to remove flowline from oil tank on location. Upon striking hammer union, threads connecting valve and swedge cracked, causing a release of oil into earthen containment. Vacuum truck was dispatched and recovered all standing fluid. Damaged connection was repaired and all recovered oil was returned to oil tank.

Describe Area Affected and Cleanup Action Taken.\*

All fluid was contained to earthen berm. Vacuum truck was dispatched and recovered 4bbl standing fluid from berm. An environmental contractor has been retained to assist with remediation efforts.

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

Signature: 		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Amy C. Ruth		Approved by Environmental Specialist: Maria Pruett	
Title: Environmental Coordinator		Approval Date: 08/10/18	Expiration Date: N/A
E-mail Address: Amy_Ruth@xtoenergy.com		Conditions of Approval:	
Date: 8/9/2018	Phone: 575-689-3380	Attached <input type="checkbox"/> 2RP-4912	

\* Attach Additional Sheets If Necessary

I#:nMAP1822267131  
A#:pMAP1822266963

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	
District RP	2RP-4912
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #:
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

### Location of Release Source

Latitude 32.452295 Longitude -104.054719  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name North Indian Flats 26 Federal #1	Site Type Exploration and Production
Date Release Discovered 7/26/2018	API# (if applicable) 30-015-27556

Unit Letter	Section	Township	Range	County
G	26	21S	28E	Eddy

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

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 7	Volume Recovered (bbls) 4
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

The crew was attempting to remove flowline from oil tank on location. Upon striking hammer union, threads connecting valve and swedge cracked, causing a release of oil into earthen containment. Vacuum truck was dispatched and recovered all standing fluid. Damaged connection was repaired and all recovered oil was returned to oil tank.


State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-4912
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:  	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Kyle Littrell</u>	Title: <u>SH&amp;E Supervisor</u>
Signature: 	Date: <u>8/28/2019</u>
email: <u>Kyle.Littrell@xtoenergy.com</u>	Telephone: <u>432-221-7331</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____	

Incident ID	
District RP	2RP-4912
Facility ID	
Application ID	

## Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-4912
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 8/28/2019

email: Kyle\_Littrell@xtoenergy.com Telephone: (432)-221-7331

**OCD Only**

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

Incident ID	
District RP	2RP-4912
Facility ID	
Application ID	

## Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 8/28/2019

email: Kyle\_Littrell@xtoenergy.com Telephone: 432-221-7331

### **OCD Only**

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

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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