

**From:** [Hernandez, Christina, EMNRD](#)  
**To:** ["Mark Larson"; Ashton Thielke; Billings, Bradford, EMNRD](#)  
**Cc:** [Pennington, Shelby](#)  
**Subject:** RE: 1RP-4832 - Response to Request for Clarification for Delineation Report, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc., July 6, 2018  
**Date:** Tuesday, August 21, 2018 11:13:00 AM  
**Attachments:** [image001.png](#)  
[Figure 3 - Aerial Map Showing Proposed Excavation and Monitoring Wells.pdf](#)

---

Dear Mr. Larson:

Delineation and modified proposed remediation for **1RP-4832** (submitted August 16, 2018) is approved. Please defer to Mr. Brad Billings, Santa Fe OCD, for any additional stipulations on groundwater monitoring wells.

Thanks,

Christina Hernandez  
EMNRD-OCD  
Environmental Specialist  
1625 N. French Drive  
Hobbs, NM 88240  
575-393-6161 x111  
[Christina.Hernandez@state.nm.us](mailto:Christina.Hernandez@state.nm.us)

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

---

**From:** Mark Larson <Mark@laenvironmental.com>  
**Sent:** Thursday, August 16, 2018 12:12 PM  
**To:** Hernandez, Christina, EMNRD <Christina.Hernandez@state.nm.us>; Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>  
**Cc:** Pennington, Shelby <Shelby\_Pennington@xtoenergy.com>; Ashton Thielke <AThielke@laenvironmental.com>  
**Subject:** FW: 1RP-4832 - Response to Request for Clarification for Delineation Report, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc., July 6, 2018

Christina,  
Please see revised drawing attached. Please contact Ashton Thielke or me if you have questions.  
Mark

---

**From:** Mark Larson  
**Sent:** Thursday, August 16, 2018 1:06 PM  
**To:** 'Hernandez, Christina, EMNRD'; 'Yu, Olivia, EMNRD'  
**Cc:** 'Pennington, Shelby'; Ashton Thielke

**Subject:** FW: 1RP-4832 - Response to Request for Clarification for Delineation Report, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc., July 6, 2018

Dear Ms. Hernandez,

Larson & Associates, Inc. (LAI), on behalf of XTO Energy, Inc. (XTO) submits the following response to your request for additional information and remediation following the review and approval of the above referenced delineation report for 1RP-4832.

- Please use different colors within a single map to facilitate interpretation and approval.

Response: please refer to attached drawing (Figure 4) showing excavation areas color coded to the responding depths; 4 feet and 12 feet

- Please clarify location of the 4' extended excavation relative to the other excavations as it is unclear. Will it be 10 ft north of the current excavation or 10 ft north of the proposed 12' extended excavation?

Response: please refer to attached drawing (Figure ) which was enlarged to better present the area of excavation to 4 feet color coded in red

- Areas that show historic releases (DP-2, DP-6, DP-7, DP-9, DP-10, DP-11, DP-12, DP-13) must be remediated as well due to high mobility of chlorides.

Response: XTO proposes to excavate soil around each location (DP-2, DP-6, DP-7, DP-9, DP-10, DP-11, DP-12 and DP-13) to approximately 4 feet below ground surface (bgs) and collect sidewall (north, south, east and west) confirmation samples from each excavation for analysis of BTEX, TPH and chloride. Additional soil will be excavated laterally until laboratory confirm these constituents below the RRAL. A 20 mil thickness polyethylene liner will be installed in the bottom of each excavation following removal of soil above the RRAL from the excavation sidewall and backfilled with clean soil.

Confirmation samples will be collected for every 50 cubic yards of clean soil and analyzed for chloride. The surface will be seeded according to landowner requirements. The excavated soil will be disposed at an OCD approved disposal facility.

Delineation completed and proposed remediation is approved with the following stipulations:

- Please note that both proposed monitoring wells are required, one up gradient and one down gradient from spill release location as noted. (Mr. Brad Billings, NMOCD Santa Fe, may have additional stipulations).

Response: approval to install the monitoring wells is pending approval from the surface owner (Jimmy Cooper) followed by submittal of an application with the Office of the State Engineer for the permit and scheduling with drilling contractor

- Please be advised that all laboratory analyses (Benzene, BTEX, and TPH extended) are required for proposed 12' and 4' extended excavation confirmation bottom and sidewall sample locations; complete laboratory analyses will also be required for groundwater testing.
- Please address historical releases; please be advised to excavate to 4' at these (DP-2, DP-6, DP-7, DP-9, DP-10, DP-11, DP-12, DP-13) locations and collect sidewall samples as well.
- After proper placement of 20 mil liner and back filling, sample every 50 cubic yards.

Please let myself or Mark Larson know if you have any questions.

Respectfully,

Ashton Thielke  
Staff Geologist  
507 N. Marienfeld St., Suite 205  
Midland, Texas 79701  
Office – 432-687-0901  
Cell – 432-556-5818  
Fax – 432-687-0456  
[athielke@laenvironmental.com](mailto:athielke@laenvironmental.com)



---

**From:** Hernandez, Christina, EMNRD [<mailto:Christina.Hernandez@state.nm.us>]  
**Sent:** Monday, July 23, 2018 3:54 PM  
**To:** Mark Larson; 'Tucker, Shelly'; Yu, Olivia, EMNRD  
**Cc:** 'Pennington, Shelby'  
**Subject:** RE: 1RP-4832 - Delineation Report, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc., July 6, 2018

Dear Mr. Larson:

Notes

- Please use different colors within a single map to facilitate interpretation and approval.
- Please clarify location of the 4' extended excavation relative to the other excavations as it is unclear. Will it be 10 ft north of the current excavation or 10 ft north of the proposed 12' extended excavation?
- Areas that show historic releases (DP-2, DP-6, DP-7, DP-9, DP-10, DP-11, DP-12, DP-13) must be remediated as well due to high mobility of chlorides.

Delineation completed and proposed remediation is approved with the following stipulations:

- Please note that both proposed monitoring wells are required, one up gradient and one down gradient from spill release location as noted. (Mr. Brad Billings, NMOCD Santa Fe, may have additional stipulations).
- Please be advised that all laboratory analyses (Benzene, BTEX, and TPH extended) are required for proposed 12' and 4' extended excavation confirmation bottom and sidewall sample locations; complete laboratory analyses will also be required for groundwater testing.
- Please address historical releases; please be advised to excavate to 4' at these (DP-2, DP-6, DP-7, DP-9, DP-10, DP-11, DP-12, DP-13) locations and collect sidewall samples as well.
- After proper placement of 20 mil liner and back filling, sample every 50 cubic yards.

Thanks,  
Christina Hernandez  
EMNRD-OCD  
Environmental Specialist  
1625 N. French Drive  
Hobbs, NM 88240

575-393-6161 x111

[Christina.Hernandez@state.nm.us](mailto:Christina.Hernandez@state.nm.us)

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

---

**From:** Mark Larson <[Mark@laenvironmental.com](mailto:Mark@laenvironmental.com)>

**Sent:** Friday, July 13, 2018 3:03 PM

**To:** 'Tucker, Shelly' <[stucker@blm.gov](mailto:stucker@blm.gov)>; Yu, Olivia, EMNRD <[Olivia.Yu@state.nm.us](mailto:Olivia.Yu@state.nm.us)>; Hernandez, Christina, EMNRD <[Christina.Hernandez@state.nm.us](mailto:Christina.Hernandez@state.nm.us)>

**Cc:** 'Pennington, Shelby' <[Shelby\\_Pennington@xtoenergy.com](mailto:Shelby_Pennington@xtoenergy.com)>

**Subject:** FW: 1RP-4832 - Delineation Report, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc., July 6, 2018

Shelly,

Please accept my apology for not including you on the attached submittal to OCD District 1. Please contact Shelby Pennington with XTO at (432) 682-8873 or email [Shelby\\_Pennington@xtoenergy.com](mailto:Shelby_Pennington@xtoenergy.com) or me if you have questions.

Respectfully,

Mark J. Larson, P.G.  
President/Sr. Project Manager  
507 N. Marienfeld St., Suite 205  
Midland, Texas 79701  
(432) 687-0901 ( O )  
(432) 556-8656 ( C )



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

"Serving the Permian Basin Since 2000"

---

**From:** Mark Larson

**Sent:** Friday, July 13, 2018 4:00 PM

**To:** 'Yu, Olivia, EMNRD'; 'Christina.Hernandez@state.nm.us'

**Cc:** 'Pennington, Shelby'

**Subject:** Re: 1RP-4832 - Delineation Report, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc., July 6, 2018

Dear Ms. Yu and Ms. Hernandez,

Larson & Associates, Inc. (LAI), on behalf of XTO Energy, Inc. (XTO), submits the attached delineation report for a produced water leak from the EMSU Satellite #13 trunk line. XTO proposes the following remedial actions in response to the spill:

- Install one (1) monitoring well down gradient (south) of the spill constructed with 2 inch schedule 40 threaded PVC and fifteen (15) feet of well screen positioned between approximately 30 and 45 feet bgs;
- Collect groundwater samples for field (chloride) and laboratory (BTEX and chloride) analysis by EPA SW-846 Methods 8021B and Method 300, respectively;
- Install second temporary monitoring well up gradient (north) of spill if field chloride analysis demonstrate concentration greater than 250 milligrams per liter (mg/L) and construct similar to down gradient well;
- Expand excavation north, south and west between about 5 to 10 feet from current excavation boundary to depth of about 12 feet bgs and collect confirmation bottom sample at approximately 12 feet bgs (HA-1) and sidewalls (north, south, east and west) at approximately 2, 8 and 10 feet bgs and analyze for TPH by EPA SW-846 Method 8015M, including GRO (C6-C12), DRO (>C12-C28) and ODR (>C28-C35);
- Excavate additional soil from sidewalls and bottom as necessary to reduce TPH below 100 mg/Kg;
- Assuming no further soil excavation backfill excavation with caliche to approximately 4 feet bgs;
- Expand excavation to depth of approximately 4 feet bgs north (10 feet), south (5 feet), east (15 feet) and west (30 feet) and collect bottom (4 feet) and sidewall (2 feet) confirmation samples for laboratory analysis (TPH and chloride) by EPA SW-846 Method 8015M and Method 300, respectively, to confirm concentrations below 100 mg/Kg (TPH) and 250 mg/Kg (chloride);
- Expand excavation as needed (north, south, east and west) approximately 4 feet bgs until sidewall confirmation samples report TPH and chloride below 100 mg/Kg and 250 mg/kg, respectively;
- Assuming no further soil excavation install 20 mil thickness poly liner in bottom of excavation at approximately 4 feet bgs, backfill excavation with clean soil and seed to landowner specifications;
- Dispose of excavated soil at Sundance (Parabo) disposal.

Your approval of the delineation report and proposed remediation plan are appreciated. Please contact Shelby Pennington with XTO at (432) 682-8873 or email [Shelby\\_Pennington@xtoenergy.com](mailto:Shelby_Pennington@xtoenergy.com) or me if you have questions.

Respectfully,

Mark J. Larson, P.G.  
President/Sr. Project Manager  
507 N. Marienfeld St., Suite 205  
Midland, Texas 79701  
(432) 687-0901 ( O )  
(432) 556-8656 ( C )



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

"Serving the Permian Basin Since 2000"

---

**From:** Yu, Olivia, EMNRD [<mailto:Olivia.Yu@state.nm.us>]  
**Sent:** Tuesday, November 28, 2017 1:06 PM  
**To:** Mark Larson  
**Cc:** 'Williams, Luke'; 'Donald, Patricia'  
**Subject:** RE: 1RP-4832 - Delineation Plan, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc., October 15, 2017

Mr. Larson:

The proposed delineation report for 1RP-4832 is approved with these stipulations:

- Please note that based on the release outlined in Figure 3, there are 2 NMOSE wells (L04507 & L10135) within 1000 ft. of the GPS coordinates for the site.
- Delineate to 600 mg/kg chloride levels and maintained for 10 ft. further in depth.
- At least two depths for each sample location must have laboratory analyses: depth obtained and depth maintained permissible levels of chlorides, TPH extended, and BTEX. Include all pertinent field data.
- Please be advised that with average depth to groundwater < 50 ft. bgs, a temporary monitoring well may be required.
- In the subsequent delineation report, please include on one or more appropriately scaled maps: 1) the release area and pipeline trench outlined; 2) delineation and proposed confirmation sample locations demarcated with GPS coordinates; 3) and dimensions and depths of proposed excavations annotated.

Please confirm or inform if clarification is required.

Thanks,

Olivia Yu

Environmental Specialist  
NMOCD, District I  
[Olivia.yu@state.nm.us](mailto:Olivia.yu@state.nm.us)  
575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

---

**From:** Mark Larson [<mailto:Mark@laenvironmental.com>]  
**Sent:** Monday, November 27, 2017 2:41 PM  
**To:** Yu, Olivia, EMNRD <[Olivia.Yu@state.nm.us](mailto:Olivia.Yu@state.nm.us)>  
**Cc:** 'Williams, Luke' <[Luke\\_Williams@xtoenergy.com](mailto:Luke_Williams@xtoenergy.com)>; 'Donald, Patricia' <[Patricia\\_Donald@xtoenergy.com](mailto:Patricia_Donald@xtoenergy.com)>  
**Subject:** FW: 1RP-4832 - Delineation Plan, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc., October 15, 2017

Hello Olivia,

This message is submitted on behalf of XTO Energy, Inc. (XTO) as a follow up to the email sent on October 19, 2017, conveying the delineation plan for 1RP-4832, and approval to delineate the spill according to the attached plan? Please contact Luke Williams with XTO at (432) 682-8873 or email [Luke\\_Williams@xtoenergy.com](mailto:Luke_Williams@xtoenergy.com) or me if you have questions.

Respectfully,

Mark J. Larson, P.G.  
President/Sr. Project Manager  
507 N. Marienfeld St., Suite 205  
Midland, Texas 79701  
(432) 687-0901 ( O )  
(432) 556-8656 ( C )



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

"Serving the Permian Basin Since 2000"

---

**From:** Mark Larson

**Sent:** Thursday, October 19, 2017 5:44 PM

**To:** 'Yu, Olivia, EMNRD'

**Cc:** 'Williams, Luke'; Sarah Johnson

**Subject:** Re: 1RP-4832 - Delineation Plan, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc., October 15, 2017

Dear Ms. Yu,

Larson & Associates, Inc. (LAI), on behalf of XTO Energy, Inc. (XTO), submits the attached delineation plan for a produced water leak from the flow line from EMSU Satellite #13 trunk line. Please contact Luke Williams with XTO at (432) 682-8873 or email [Luke\\_Williams@xtoenergy.com](mailto:Luke_Williams@xtoenergy.com) or me if you have questions.

Respectfully,

Mark J. Larson, P.G.

President/Sr. Project Manager

507 N. Marienfeld St., Suite 205

Midland, Texas 79701

(432) 687-0901 ( O )

(432) 556-8656 ( C )



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

"Serving the Permian Basin Since 2000"