

Bratcher, Mike, EMNRD

From: Mark Larson <Mark@laenvironmental.com>
Sent: Friday, August 18, 2017 3:57 PM
To: Bratcher, Mike, EMNRD
Cc: 'McMinn, Dudley'
Subject: RE: 2RP-3976 and 2RP-4235 - Nash Draw 42 CTB Delineation Report and Delineation Plan, June 30, 2017

Thank you Mike! Backfilling will commence on Monday, August 21st and should be completed on Tuesday, August 22nd. The final reports should be on your desk by Friday, August 25th barring no unforeseen conditions.

Respectfully,
Mark Larson

From: Bratcher, Mike, EMNRD [mailto:mike.bratcher@state.nm.us]
Sent: Friday, August 18, 2017 4:39 PM
To: Mark Larson; Weaver, Crystal, EMNRD; 'Groves, Amber'
Cc: 'McMinn, Dudley'; 'Williams, Luke'
Subject: RE: 2RP-3976 and 2RP-4235 - Nash Draw 42 CTB Delineation Report and Delineation Plan, June 30, 2017

RE: 2RP-3976 & 2RP-4235

Mark,

Based on data provided, you are approved to commence backfill operations. Sorry for a perceived delayed response, but if we actually worked everything in the order received, it would be at least a few weeks before you got a response. We do appreciate the thorough job and uncomplicated reporting you provide, along with XTO's willingness and cooperation in maintaining an environmentally solid operation. I do understand the urgency for this particular project and apologize for any inconvenience.

Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210
575-748-1283 Ext 108

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: Friday, August 18, 2017 8:27 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; 'Groves, Amber' <agroves@slo.state.nm.us>
Cc: 'McMinn, Dudley' <Dudley_McMinn@xtoenergy.com>; 'Williams, Luke' <Luke_Williams@xtoenergy.com>
Subject: FW: 2RP-3976 and 2RP-4235 - Nash Draw 42 CTB Delineation Report and Delineation Plan, June 30, 2017

Crystal/Mike,

This summary is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of XTO Energy Inc. (XTO) to present the delineation and remediation of two (2) spills (2RP-3976 and 2RP-4253) at the Nash Draw CTB #42. LAI requests approval to backfill the excavations so that XTO may install a spray-in liner and resume production. The final reports for 2RP-3976 and 2RP-4253 will be submitted after the excavations area backfilled along with the final C-141s.

On August 8 - 9, 2017, XTO personnel shut-in the production and removed above ground piping and electrical from the remediation area. On August 10, 2017, XTO had the gun barrel and overflow tanks removed from the remediation area. Immediately following removal of the tanks, Scarborough Drilling mobilized an air rotary rig to DP-11 for the purpose of delineating chloride as requested by OCD. Soil samples were collected with a jam tube sampler at 10, 15, 20, 25 and 30 feet below ground surface (bgs) and were analyzed for chloride by EPA Method 300. Chloride was below 250 mg/Kg in all samples concluding successful vertical delineation. The ploy liner was removed from the remediation area and disposed at Lea Land Landfill. Soil excavation began near the southwest corner of the remediation area and progressed east and north until the entire area was excavated to a depth of approximately 18 inches. Soil was excavated to approximately 5 feet bgs at DP-6. Additional soil was excavated in the vicinity of DP-5 where holes were observed in the poly liner and from areas beneath the tanks and where staining was observed beneath the liner. The area around DP-8 was excavated to about 2 feet bgs. Soil was scraped to about 0.5 feet bgs from the area north of DP-12 where the recent produced water spill (2RP-4253) had encroached. On August 11, 2017, LAI personnel used a stainless steel hand auger and trowel to collect soil samples from the bottom of the excavations at sixteen (16) locations (S-1 through S-16) including the area north of DP-12 where was scraped from the recent spill (S-16). Sidewall samples were collected from the deeper excavations. The samples were analyzed for BTEX, TPH and chloride by Methods SW-846--8021B, SW-846-8015M and 300, respectively.

The laboratory reported TPH above the RRAL (1,000 mg/Kg) in the following bottom samples:

S-5, 5.0' – 5.5' (5,450 mg/Kg)
S-6, 4.5' – 5.0' (9,780 mg/Kg)
S-10, 1.5' – 2.0' (3,953 mg/Kg)
S-14, 1.5' – 2.0' (1,598.7 mg/Kg)

The laboratory reported TPH above the RRAL (1,000 mg/Kg) in the following sidewall samples:

S-5, 2' East (3,580 mg/Kg)
S-6, 4' North (1,310 mg/Kg)
S-6, 2' South (18,450 mg/Kg)
S-6, 2' East (2,558 mg/Kg)

The laboratory reported chloride above 600 mg/Kg in the following bottom samples:

S-13, 1.5' – 2.0' (8,210 mg/Kg)
S-14, 1.5' – 2.0' (1,050 mg/Kg)
S-16, 0.5' – 1.0' (3,810 mg/Kg)

Between August 14 – 16, 2017, additional soil was excavated at S-5, S-6, S-10 and S-14. TPH was below the RRAL in the final confirmation samples. Chloride was 247 mg/Kg in the bottom sample (5.0' – 5.5') at S-14. Scarborough Drilling collected samples every 5 feet (5, 10, 15, 20 feet, etc.) to 30 feet at S-13 and 20 feet at S-16. Chloride was below 600 mg/Kg in all samples from S-13 and below 250 mg/Kg in all samples from S-16. Please refer to Table 2. The excavation and sample location drawing is presented as Figure 2. Photographs are attached. Approximately 525.5 tons/cubic yards of contaminated soil was hauled to Le Land Landfill, LLC. Clean caliche was hauled back from Lea Land for backfilling the excavations. LAI, on behalf of XTO, requests OCD approval to backfill the excavations so that XTO may begin installing the spray-in liner and resume production. Please contact Dudley McMinn with XTO Energy at (432) 682-8873 or Dudley_McMinn@xtoenergy.com or me if you have questions.

Respectfully,

Mark J. Larson, P.G.
President/Sr. Project Manager

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"Serving the Permian Basin Since 2000"

From: Mark Larson
Sent: Wednesday, August 09, 2017 7:01 PM
To: 'Weaver, Crystal, EMNRD'
Cc: 'McMinn, Dudley'; 'Williams, Luke'
Subject: RE: 2RP-3976 and 2RP-4235 - Nash Draw 42 CTB Delineation Report and Delineation Plan, June 30, 2017

Crystal,
The tanks (gun barrel and overflow) were emptied today and will be removed on Thursday morning to allow access for equipment to perform remediation. We plan to collect additional samples tomorrow from SB-11 for vertical delineation.
Mark

From: Weaver, Crystal, EMNRD [<mailto:Crystal.Weaver@state.nm.us>]
Sent: Monday, August 07, 2017 9:27 AM
To: Mark Larson
Subject: RE: 2RP-3976 and 2RP-4235 - Nash Draw 42 CTB Delineation Report and Delineation Plan, June 30, 2017

Good morning,

Thank you Mark. I may try to make it out to this one if Amber can not.

Crystal Weaver

Environmental Specialist
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811 S. 1st Street
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From: Mark Larson [<mailto:Mark@laenvironmental.com>]
Sent: Sunday, August 6, 2017 6:58 PM
To: Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; 'Groves, Amber' <agroves@slo.state.nm.us>
Cc: 'McMinn, Dudley' <Dudley_McMinn@xtoenergy.com>; 'Williams, Luke' <Luke_Williams@xtoenergy.com>
Subject: RE: 2RP-3976 and 2RP-4235 - Nash Draw 42 CTB Delineation Report and Delineation Plan, June 30, 2017

Crystal/Amber,

This is to inform you that remediation of 2RP-3976 and 2RO-4253 will commence on Monday, August 9, 2017. Please contact Dudley McMinn with XTO Energy, Inc., at (432) 682-8873 or Dudley_McMinn@xtoenergy.com or me if you have questions.

Respectfully,

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“Serving the Permian Basin Since 2000”

From: Weaver, Crystal, EMNRD [<mailto:Crystal.Weaver@state.nm.us>]

Sent: Thursday, July 27, 2017 5:21 PM

To: Mark Larson; Bratcher, Mike, EMNRD; 'McMinn, Dudley'; 'Williams, Luke'

Cc: 'Tucker, Shelly'; Groves, Amber

Subject: RE: 2RP-3976 and 2RP-4235 - Nash Draw 42 CTB Delineation Report and Delineation Plan, June 30, 2017

XTO * Nash #42 Tank Battery * 30-015-37194 * 2RP-3976 & 2RP-4253

Hello all,

First off thank you Mark for your answers to my questions.

I was checking a few clerical details and I wanted to bring a few more things to all of your attention. On the first spill, given case number 2RP-3976, there was no API number provided on the initial C-141 and since it was mentioned that the release was involving a battery our administrative personnel entered this in our system and gave it a facility number instead of relating it to the API for this location. However, on the second spill, given case number 2RP-4253, an API number was provided on the initial C-141 so our administrative personnel entered this one into our system under the API number. So now we have records for two spills recorded in two different places in our system that in fact actually happened at this same site. Please try to remain consistent on what you go with for C-141 documentation and of course for any documentation.

Also I show in my records that this site is on State Land Office administered service but when I look back in the well file history for this site I see documents being provided to the BLM for this facility. Since I have this site as SLO land I am adding Amber Groves, from the State Land Office, to this email chain and I am thus requesting that someone please help to clarify this matter. **So Shelly or Amber can you all please clear up who is the surface owner for this location?**

Finally, getting back to Mark's answers to my questions.

OCD accepts your proposal for remediation of the above mentioned releases (2RP-3976 and 2RP-4235) with the following conditions:

- Within the answers provided below it is stated that Larson Associates Inc. on behalf of XTO will be submitting samples for laboratory testing of *“total petroleum hydrocarbons (TPH) as determined by EPA SW-846 Method 8015 for GR, DRO and ORO is below the RRAL (1,000 mg/Kg The confirmation samples will be analyzed Method 300. Additional vertical samples will be collected to delineate chloride to 600 mg/Kg.”* However, OCD notes that testing for BTEX was not mentioned in either of these statements. OCD requires that all sampling points related to the remediation of this site start out with testing for all required constituents that are mentioned within the Conditions of Approval document that was provided by OCD to you all for each of these releases.
- Since the second release spanned beyond the extent of the first release it is OCD’s understanding that all impacted areas will be delineated during remedial activities. Excavation depths may vary based on new analytical data.
- Again as mentioned above in bullet point 1, because your response statement below, to my sampling request for areas where there are holes in the liner, does not include the mentioning of sampling for BTEX I want to make it clear that OCD requires that all sampling points related to the remediation of this site start out with testing for all required constituents that are mentioned within the Conditions of Approval document that was provided by OCD to you all for each of these releases.
- OCD concurs with the answer provided below regarding sampling point DP-11.

Please advise once remedial activities have been scheduled. If this is Federal surface then it will require like approval from BLM, if this is State Land Office surface than it will require like approval from SLO.

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.

If you have any questions or concerns, and for notification, please contact Mike Bratcher and/or myself in the District II Office.

Crystal Weaver

Environmental Specialist

OCD – Artesia District II

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

Sent: Friday, July 21, 2017 7:24 AM

To: Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; 'McMinn, Dudley' <[Dudley McMinn@xtoenergy.com](mailto:Dudley_McMinn@xtoenergy.com)>; 'Williams, Luke' <[Luke Williams@xtoenergy.com](mailto:Luke_Williams@xtoenergy.com)>

Subject: FW: 2RP-3976 and 2RP-4235 - Nash Draw 42 CTB Delineation Report and Delineation Plan, June 30, 2017

Crystal,

The following is submitted on behalf of XTO Energy, Inc. (XTO) in response to your questions below:

Question: All sampling mentioned in the current work plan (happened on 3/13/17 and 3/14/17) is sampling that relates to the original spill that occurred back on 10/27/16 (2RP-3976) correct? How can a depth of excavation be determined for the new spill area (spill that occurred on 6/14/17, 2RP-4235; which was stated in the C-141 as both oil and produced water fluids were released) without any additional sampling being done on its behalf prior to excavation?

Response: it is my opinion that the depth of excavation will be similar to what is proposed since the initial spill was mostly crude oil with an small amount of produced water and the recent spill is mostly produced water with a small amount of crude oil. Soil will be excavated until total petroleum hydrocarbons (TPH) as determined by EPA SW-846 Method 8015 for GR, DRO and ORO is below the RRAL (1,000 mg/Kg. The confirmation samples will be analyzed Method 300. Additional vertical samples will be collected to delineate chloride to 600 mg/Kg.

Question: Holes in the liner are shown in the photographs provided. What is the status of the liner in those areas following spill 1 but prior to spill 2? OCD will require sampling in any areas where there were holes in the liner.

Response: The area east of the tank battery covered by the initial spill is unlined. The recent spill east of the tank battery occurred the lined area where holes are shown in the liner. Soil samples will be collected from the lined area covered by the spill where holes are observed. The soil samples will be will be analyzed for TPH as determined by EPA SW-846 Method 8015 for GR, DRO and ORO and chloride by Method 300. Soil will be excavated until TPH in bottom sample and sidewall samples where the excavation exceeds 2 feet is below the RRAL (1,000 mg/Kg). Additional vertical samples will be collected to delineate chloride to 600 mg/Kg.

Question: Also at sample point DP-11 chloride results show at 702ppm at a depth of 5-6ft, as you mentioned, so you would need to resample there or continue to delineate till chlorides show clean.

Response: A backhoe may be used to confirmed the chloride concentration in soil at DP-11, 5 – 6 feet. The sample will be analyzed by Method 300. Additional vertical samples will be collected to delineate chloride to 600 mg/Kg.

Question: also just noticed one last thing, the label on your Table 1 says that the table is for 2RP-1486, is that a typo?

Response: Good catch! I used an earlier table as a template and didn't change the remediation permit number. Please find the corrected table attached.

Question: also just noticed one last thing, the remediation permit number you refer to for the recent spill (2RP-4235), is that a typo?

Response: This remediation permit (2RP-4235) is for a release at the Devon Energy Production Company Cotton Draw Unit 84! It appears the 3 and 5 were juxtaposed and should be 2RP-4253.

Please contact Dudley McMinn with XTO Energy at (432) 682-8873 or Dudley_McMinn@xtoenergy.com or me if you have questions.

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“Serving the Permian Basin Since 2000”

From: Weaver, Crystal, EMNRD [<mailto:Crystal.Weaver@state.nm.us>]
Sent: Thursday, July 13, 2017 2:07 PM
To: Mark Larson; Bratcher, Mike, EMNRD; 'Tucker, Shelly'
Cc: 'McMinn, Dudley'; 'Williams, Luke'
Subject: RE: 2RP-3976 and 2RP-4235 - Nash Draw 42 CTB Delineation Report and Delineation Plan, June 30, 2017

XTO * Nash #42 Tank Battery * 30-015-37194 * 2RP-3976 & 2RP-4253

Hello all,

Thank you for the submission of this most recent plan and for the submission of the prior one as well. OCD is fine with the idea of remediating both spills at the same time while you have equipment and workers mobilized, etc. and we are fine with both releases being written about in the same work plan and closure report etc., however, the spills will still be treated as separate cases as far as each will be referred to by its individual tracking number and DOR, and each will have to be closed out on our end as individual incidents. So each will need final C-141s.

With that being said, I have looked things over and I have a few questions for you all:

- All sampling mentioned in the current work plan (happened on 3/13/17 and 3/14/17) is sampling that relates to the original spill that occurred back on 10/27/16 (2RP-3976) correct? How can a depth of excavation be determined for the new spill area (spill that occurred on 6/14/17, 2RP-4235; which was stated in the C-141 as both oil and produced water fluids were released) without any additional sampling being done on its behalf prior to excavation?

- Holes in the liner are shown in the photographs provided. What is the status of the liner in those areas following spill 1 but prior to spill 2? OCD will require sampling in any areas where there were holes in the liner.
- Also at sample point DP-11 chloride results show at 702ppm at a depth of 5-6ft, as you mentioned, so you would need to resample there or continue to delineate till chlorides show clean.

I look forward to receiving a response to my questions/requests.

If you have any need for clarification or have any questions of your own please contact myself or Mike Bratcher here at the District II Office.

Thank you,

Crystal Weaver

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

Sent: Monday, July 3, 2017 4:06 PM

To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; 'Tucker, Shelly' <stucker@blm.gov>

Cc: 'McMinn, Dudley' <Dudley_McMinn@xtoenergy.com>; 'Williams, Luke' <Luke_Williams@xtoenergy.com>

Subject: Re: 2RP-3976 and 2RP-4235 - Nash Draw 42 CTB Delineation Report and Delineation Plan, June 30, 2017

Mike/Crystal/Shelly,

Larson & Associates, Inc. (LAI) submits the delineation report and remediation plan for a crude oil spill at the XTO Energy, Inc. (XTO) Nash Draw 42 CTB. Since submitting the plan on May 23, 2017, XTO reported another spill at the facility on June 14, 2017, prior to receiving OCD approval of the remediation plan for the crude oil spill. XTO would like the OCD to consider allowing remediation of both spills under the remediation plan presented herein. Please contact Dudley McMinn with XTO Energy at (432) 682-8873 or Dudley_McMinn@xtoenergy.com or me if you have questions.

Link: <https://files.acrobat.com/a/preview/aac0757d-4e60-4e7d-b88c-f8ac9693cab9>

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“Serving the Permian Basin Since 2000”

From: Mark Larson
Sent: Tuesday, May 23, 2017 8:24 AM
To: 'Bratcher, Mike, EMNRD'; 'Weaver, Crystal, EMNRD'
Cc: 'McMinn, Dudley'; 'Williams, Luke'
Subject: Re: XTO CTB 42 Revised Delineation Report

Mike/Crystal,

Please use the link below to download the revised delineation report for 2RP-3976. The report was revised to include additional photographs for exposing the liner inside the firewall. Please contact Dudley McMinn with XTO Energy at (432) 682-8873 or Dudley_McMinn@xtoenergy.com or me if you have questions.

Link: <https://files.acrobat.com/a/preview/af3a731c-13d6-4830-8201-6944cbd5f9aa>

Respectfully,

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