

Venegas, Victoria, EMNRD

From: Ashley Ager <aager@ltenv.com>
Sent: Wednesday, May 1, 2019 12:44 PM
To: Bratcher, Mike, EMNRD; caweaver@blm.gov
Cc: Hamlet, Robert, EMNRD; adrian_baker@xtoenergy.com; Littrell, Kyle; Venegas, Victoria, EMNRD; Billings, Bradford, EMNRD; jamos@blm.gov; McKinney, Deborah
Subject: RE: [EXT] Re: [EXTERNAL] RE: Urgent - Work Plan - JRU 10/2RP-3179, 2RP-3464, and 2RP-5243

Mike and Crystal,

On behalf of XTO, we will proceed with the direction provided by NMOCD and BLM and complete a more detailed delineation of impacted soil, as well as investigate groundwater depth and flow direction. We will schedule the drilling event to occur in the next two weeks, then will submit a revised remediation work plan by June 28, 2019. Thank you for your input and if you have additional questions, please let me know.

Ashley

Ashley Ager
Vice President of Regional Offices

(970) 385-1096 office
(970) 946-1093 mobile

From: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Sent: Monday, April 29, 2019 8:23 AM
To: Ashley Ager <aager@ltenv.com>; caweaver@blm.gov
Cc: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; adrian_baker@xtoenergy.com; Littrell, Kyle <Kyle_Littrell@xtoenergy.com>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; jamos@blm.gov; McKinney, Deborah <dmckinne@blm.gov>
Subject: RE: [EXT] Re: [EXTERNAL] RE: Urgent - Work Plan - JRU 10/2RP-3179, 2RP-3464, and 2RP-5243

Good Morning,

A meeting to discuss this site may be appropriate at some point, however, it may be problematic to get it scheduled. I will attempt to provide an outline of what minimally, OCD is going to require at this site. If BLM is in agreement, this may allow XTO to have some idea of a path forward, and continue the work and/or scheduling as required.

- Actual depth to groundwater will need to be established, by installation of a monitor well. I would suggest completing it in a manner that will allow for potential long term monitoring. There may some data available that establishes gradient. If not, this will need to be established by the installation of other water well borings as necessary to establish gradient. The completed water well needs to be installed down gradient, and in very close proximity to the impacted battery site.
- A more complete delineation of impact needs to be performed. OCD would request a minimum of two borings be installed in the battery area, in what would be the more highly impacted areas. Samples are to be obtained at five feet intervals throughout the delineation. The purpose is to have a more precise idea of the levels and volume of hydrocarbon impact that exist. Sampling for chloride will be required as well.
- Based on data already obtained, a four feet excavation and liner installation will not be an acceptable remedial proposal for this site. A deeper excavation will likely be required, along with a proposed method for mitigating

the deeper impact that may not be practicable to excavate. Of particular concern, is the lighter end hydrocarbons that have been determined to exist at significant depths.

- I would expect this to potentially be a long term project, so if XTO needs to return the well to production, the battery will need to be rebuilt in a different area of the well pad. Allow for potential deep excavations and monitoring at the impacted site when deciding on position of a new battery, if that is what XTO chooses to do. BLM will need to be consulted if additional surface disturbance is required.

If you have any questions or concerns, please let me know, but hopefully this will allow work to continue on this project. Please coordinate with OCD and BLM moving forward. If XTO still believes a meeting is required prior to moving forward, please advise and we will attempt to accommodate as soon as possible.

Thank you,

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: Weaver, Crystal <caweaver@blm.gov>

Sent: Sunday, April 28, 2019 9:47 AM

To: Ashley Ager (aager@ltenv.com) <aager@ltenv.com>

Cc: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; adrian_baker@xtoenergy.com; Littrell, Kyle <Kyle.Littrell@xtoenergy.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; jamos@blm.gov; McKinney, Deborah <dmckinne@blm.gov>

Subject: [EXT] Re: [EXTERNAL] RE: Urgent - Work Plan - JRU 10/2RP-3179, 2RP-3464, and 2RP-5243

Hello all,

A meeting would be fine. This week is pretty busy at the BLM internally, with a lot of required safety training going on this week. Perhaps the week after would be best for us.

However, I will say BLM understands that depth was pursued at the 80' reach but it wasn't in the same areas where the impact was showing. For example the 42' impact was next to the tank farthest on the end yet the 80' was pursued in an area next to the tank in the middle and again 80' was pursued at a point along the perimeter. Why not where the 42' area had revealed high numbers? Also same with the question about SS1. BLM sees that 4ft. depth was pursued for excavation for that whole area demarked by the black dashed but no bottom hole samples are shown aside from around the perimeter of that area. That is the questions we have about this. If the tank on the east end leaked ever for an extended period of time we would never be certain regarding potential ground water impact for that area cause the contamination trail was not concluded on in that area. If XTO has an explanation for why further delineation didn't happen in that area we would be welcome to hearing it.

I hope that helped paint the picture of what we are seeing. I understand that being the folks that did the work you know what you know but us being the folks that review it, we can only get what we can from the info there.

If XTO and LTE still require a meeting to further discuss this as stated BLM is able and willing hopefully next week May 6-10.

Thank you,

On Fri, Apr 26, 2019, 3:00 PM Ashley Ager <aager@ltenv.com> wrote:

All,

I've pulled both Crystal's and Robert's responses into one email so that we could address each comment in one effort. Please see the text in blue below. Although I attempted to respond to each comment, would it be prudent to set up a meeting to work through the issues given the number of comments and concern expressed by the regulators? We'd like to better understand the expectations. Discussing potential options for moving forward is probably easier than emailing back and forth. Would NMOCD and BLM be available for a meeting in the next two weeks?

Thank You,

Ashley

Ashley Ager

Vice President of Regional Offices

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From: Weaver, Crystal <caweaver@blm.gov>

Sent: Friday, April 26, 2019 1:45 PM

To: adrian_baker@xtoenergy.com

Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>; jamos@blm.gov; Ashley Ager <aager@ltenv.com>; Littrell, Kyle <Kyle_Littrell@xtoenergy.com>

Subject: Re: [EXTERNAL] Urgent - Work Plan - JRU 10/2RP-3179, 2RP-3464, and 2RP-5243

Hello all,

BLM concurs with OCD that prior to any further authorizations that additional delineation and more concise intervals of data would be required.

Why was delineation stopped at PH02A at a depth of 42' when lab results showed 92.3mg/kg for total BTEX and 6140mg/kg for total TPH? The work plan documents LTE's site characterization assessment and states that due to site specific factors a full delineation of the most stringent level is required for this project (documented as referencing OCD's Table 1 from their spill rule under the category of <50 feet ground water).

PH02 is not the vertical delineation point. PH02 was advanced with a track hoe to the maximum depth possible with the available equipment on site. When total depth of the impacted soil could not be identified, LTE had to abandon the pothole and utilize a drill rig to go deeper. BH01 was drilled with a hollow stem auger rig and is the vertical delineation point in the center of the impacted area. It was drilled to 80 feet bgs, sampled and field screened every 5 feet, and 2 samples were submitted for laboratory analysis – the soil with the highest field screening result at 35 feet bgs and the bottom of the borehole at 80 feet bgs. The sample collected at 80 feet bgs was clean and represents vertical delineation at the Site.

Also I cross checked the depth to ground water data myself. For this area it was found that while the work plan did mention depth to groundwater data for well C-2492-POD2 being depth to water (dtw) of 125 ft bgs, however, the work plan failed to mention well C-2492 which is closer to the spill site (but not very far from C-2492-POD2) had recorded depth to water at 85 ft bgs and the difference in elevation of surface from the location of the spill and the location of that well is something approx. to 10ft. according to what Google Earth states (accuracy on elevation is debatable). Installation of triangulated placement of monitoring wells may need to be considered here if for no other reason then to at least rule out the possibility that groundwater impact occurred.

BH01 was drilled to 80 feet bgs on site and no saturated sediments representative of the presence of groundwater was encountered. The borehole was left open for more than 24 hours and no groundwater filled in.

BLM interpreted that the review of this work plan was urgent due to the tank battery currently being removed. However, BLM also interprets that since the tank battery has been removed that XTO should take advantage of the opportunity to further investigate the area both vertically and horizontally where the tanks once were since it can be derived from the data that residual fluid loss over time may have likely been a concern here regarding how much contaminants are present at the depths shown. Replacement of the battery in this same exact spot on the pad will most likely not be something that BLM would authorize anytime soon. Therefore, relocation of this battery appears to be appropriate to discuss if there is urgency to put things back into production currently while the battery's original location receives further attention.

LTE and XTO believe vertical and lateral delineation has been achieved with boreholes BH01 – BH06.

In addition regarding further investigation concerns, BLM would like to request that more representative investigation efforts regarding delineation and sampling be made around the area demarked by the black X (on the provided site map) that indicates the approx. origination of the other two points of release for the older releases. SS1 showed high TPH 8300mg/kg and total BTEX 139mg/kg at the 0.5' increment and then no data around that area was further provided.

All soil represented by soil sample SS1 has been excavated. Soil within the black dashed line has been removed to 4 feet bgs. Subsurface samples near the black X include PH01 at 6' bgs approximately 20 feet to the southwest, BH01, BH05, and BH06 approximately 30 feet to the southeast, northeast, and west respectively. Samples were collected every 5 feet in each of those boreholes for field screening and two samples from each were submitted for laboratory analysis. In addition, excavation sidewall samples nearest the black X, SW02 and SW04, were collected after removing the top four feet of soil and laboratory analytical results of those samples were clean.

Finally, although delineation is still not complete, currently as things stand, the remediation solution prescribed for this release does not seem adequate in regards to being the most effective for mitigating this site. Additional or alternate proposed efforts will need to be provided.

Soil impact extends from approximately 4 feet to 75 feet bgs. The depth of impacted soil makes excavation/removal impractical due to the benching and shoring that would be required. Disturbance of unaffected areas would be significant and would result in additional environmental impact. The affected soil is characterized by both elevated hydrocarbons and chloride. While the hydrocarbons can be addressed in situ, the chloride cannot. Based on the depth of the impact, presence of elevated chloride, and documentation of clean soil above groundwater, LTE proposed capping the remaining impact and leaving it in place. If that plan is not acceptable, would BLM consider *in situ* measures that only address hydrocarbon concentrations and not chloride, or does BLM expect excavation of the soil to the depths identified?

If further questions or concerns are needing to be addressed with the BLM please contact myself or Jim Amos.

Thank you,

Crystal Weaver

Environmental Protection Specialist

BLM - Carlsbad, NM

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BLM Carlsbad Field Office

620 E. Greene Street

Carlsbad NM 88220

"3 percent of the water on this planet is considered freshwater. Of that 3 percent only 1 percent is considered accessible, meaning the majority of the remaining 2 percent is trapped in glaciers or snowfields." - National Geographic

The **BLM acceptance/approval does not** relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not re-vegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

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From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>

Sent: Wednesday, April 24, 2019 9:22 AM

To: Adrian Baker <abaker@ltenv.com>

Cc: Ashley Ager <aager@ltenv.com>; Littrell, Kyle <Kyle.Littrell@xtoenergy.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>; caweaver@blm.gov; jamos@blm.gov; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; 'jamos@blm.gov' <jamos@blm.gov>; McKinney, Deborah <dmckinne@blm.gov>

Subject: RE: Urgent - Work Plan - JRU 10/2RP-3179, 2RP-3464, and 2RP-5243

Adrian,

I'm glad that you removed the tank battery. The depth of contamination on this site is significant. A couple of things need to be addressed. First, the OCD needs soil samples taken on the boreholes at 5 ft increments to a depth the organics are under the limit. We need a clearer picture of the whole interval, not just at 20 and 42 ft. Essentially, the site hasn't been fully delineated if the bottom sample is still "hot". Second, the depth of the contamination on this site might require close inspection of the tanks to verify their durability.

We agree that data from the potholes did not delineate the impacted soil, so we utilized a drill rig to delineate. BH01, drilled at the center of the release footprint, documented vertical delineation with a clean sample obtained from 80 feet bgs. A borehole log for BH01 is included in the report and field screening with the laboratory analytical data indicate the soil is impacted from just below 4' bgs to approximately 75' bgs. All boreholes (BH01 through BH06) were sampled every 5 feet, described, and field screened. We conducted laboratory analysis on the samples collected from the intervals with the highest field screening result and from the bottom of each borehole. Lateral delineation was achieved with boreholes BH02 through BH06. The initial potholing data is only presented to document all work conducted on site and to supplement borehole data within the impacted area.

Regarding the comment about tank inspection, are you asking that we provide construction information about the new tanks that will be set above the impacted area?

XTO intends to replace the problematic water tank and all other tanks will be integrity tested prior to reinstallation.

Please let me know if you have any questions.

Thanks,

Robert J Hamlet

State of New Mexico

Energy, Minerals, and Natural Resources

Oil Conservation Division

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addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

From: Adrian Baker <abaker@ltenv.com>

Sent: Friday, April 12, 2019 3:25 PM

To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>; caweaver@blm.gov; jamos@blm.gov

Cc: Ashley Ager <aager@ltenv.com>; Littrell, Kyle <Kyle_Littrell@xtoenergy.com>

Subject: [EXT] Urgent - Work Plan - JRU 10/2RP-3179, 2RP-3464, and 2RP-5243

Importance: High

All,

Attached is a Work Plan for a recent release and two historical releases at JRU 10/2RP-3179, 2RP-3464, and 2RP-5243. XTO removed the tank battery and needs to replace the tanks as soon as possible for production purposes. Can you please review as quickly as possible?

Thank you



Adrian Baker

Project Geologist/Office Manager

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