

From: [Hamlet, Robert, EMNRD](#)
To: [Michael Moffitt](#)
Cc: [Bratcher, Michael, EMNRD](#)
Subject: Prometheus Remediation: Path Forward (incident ID (n#) nAPP2226241849)
Date: Thursday, September 14, 2023 9:11:00 AM

Michael,

I read through the clarification notes from the email sent on 9/13/2023. Most of the notes seem to fall in line with the conditions mentioned in the application rejection. Two quick things need to be mentioned. One, please make sure the floor samples meet closure criteria standards from Table 1 of the OCD Spill Rule. If the target depth cannot be reached due to rock refusal, please outline specific locations and steps taken on the Closure Report. Second, if bioremediation and/or soil washing of soils/chlorides is conducted, Vertex would need to upload a formal remediation plan addendum through the OCD Permitting Portal outlining at a minimum, sampling treatment protocols, processes, and mechanics. This would need to be preapproved by the OCD before any work could be conducted and would most likely delay the remediation project even further.

At this time, the OCD Conditionally Approves the Remediation Plan with the included Vertex Clarifications. This email will be uploaded to the OCD Permitting Incident files for future reference.

Regards,

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Michael Moffitt <MMoffitt@vertex.ca>
Sent: Wednesday, September 13, 2023 3:54 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Subject: [EXTERNAL] FW: Prometheus Remediation: Path Forward (incident ID (n#) nAPP2226241849)
Importance: High

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Robert,

Attached is the email I sent Mike as a follow up after he called me regarding his temporary leave and that his surgery had been moved up. Having spoken with Tami Knight as well from SLO ECO, they would like to see us act on the remediation ASAP as it has hung in the balance for quite some time. Having reviewed in detail the comments from NMOCD's denial of the work plan, I found that only minor changes would need to be included. If I interpreted the feedback that was provided wrong, please advise on what is missing. My write up below outlines our approach in response to the denial. Moreover, wait time on approvals of the resubmission would only prolong the process. With that in mind I believe the best course of action is to dig and haul the remainder of the contaminated soil in a straightforward fashion and take the location to closure once completed. Because the square footage variance for the base at 400 sq ft was approved, no other variances are proposed nor will be requested. What we are truly looking for is to start the clock and try and complete these actions within a 90-day time window per NMOCDs agreement of the terms. This would allow Vertex and our subcontractor the ability to mobilize ASAP and work toward confirmatory sampling and additional dirt removal. If you have any concerns with this proposal, let me know and we can establish a meeting time to review. Your responsiveness is appreciated, and I look forward to finalizing a path forward.

All the best,

Michael

From: Michael Moffitt

Sent: Tuesday, September 12, 2023 11:11 AM

To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>

Subject: Prometheus Remediation: Path Forward (incident ID (n#) nAPP2226241849)

Importance: High

Mike,

Per our conversation yesterday afternoon regarding the Prometheus, I wanted to review the following bulleted line items below in response to the Remediation Plan denial for **incident ID (n#) nAPP2226241849**. These clarifications outline how Vertex, on behalf of Ace Fluids, will finalize remedial efforts towards site closure. If the terms are accepted, it is anticipated that final actions/efforts could take upwards of 90 days to complete. I have also included a section in this email from questions I answered that were asked by Tami Knight from SLO ECO. The responses further reiterate the steps we are actively taking towards closure and include redlines from prior proposed actions NMOCD did not approve. I appreciate your time, patience, and guidance on this matter. Vertex would also like to move the project forward ASAP since the site has been in limbo for months. Unfortunately, I believe a revised remediation plan/resubmittal would draw the timeline out. Additionally, our clients would like to take this directly to closure since the end goal is straightforward at our current stage in the process. Lastly, please do not hesitate to reach out if you have any questions or require further information.

NMOCD Application Rejection Clause:

The OCD has rejected the submitted Application for administrative approval of a release notification and corrective action (C-141), for incident ID (n#) nAPP2226241849, for the following reasons: The Remediation Plan is Denied. The variance request for limited excavation depth is denied. If rock refusal interferes with the remediation process, use a back-hoe/track-hoe to remove the rock. If the rock is immovable and target depth cannot be reached, use a hydrovac to clean the contaminated soil off the rock surface and outline specific locations and steps taken on the Closure Report. The largest variance confirmation floor sample size that the OCD can currently grant at this time is 400 ft². The variance is approved for 400 ft² floor confirmation samples. Confirmation sidewall samples will need to be taken from the sides of the excavation, representing no more than 200 ft². All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. All off pad areas must meet reclamation standards set forth in the OCD Spill Rule. The work will need to occur in 90 days after the work plan has been reviewed.

Vertex Clarifications:

1. Vertex, through our construction subcontractors, will strive to ensure a minimum depth of 4ft bgs is achieved to establish a rooting zone for vegetation while also meeting criteria for DTGW being greater than 100 ft bgs. Appropriate equipment will be sourced and utilized if hard pan continues to be encountered.
2. Washing of the soils/chlorides through remedial agents or cleaning of the hard pan subsurface within the excavation via a hydrovac is not anticipated nor preferred. The suggestion by NMOCD was taken into consideration but will be avoided unless all other options become technically unfeasible.
3. The affected area of concern (AOC) will be addressed through traditional remediation efforts via digging and hauling of contaminated soils.
4. Excavation of soils will be guided by field screening, the EM survey Vertex performed, and perimeters established by SMA's prior characterization of the site.
5. Confirmation samples will be collected at 200 ft² for sidewalls and 400 ft² for bottom samples only.
6. All samples will be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC respectively.
7. The closure report will document and detail all actions taken towards the remediation.
8. Reclamation of off pad areas will be addressed and met according to NMOCD 19.15.29.13 and SLO ECO's stipulations which can be referenced below.

SLO ECO Q/A Correspondance:

I wanted to provide a response to the questions asked by Tami below.

1. **"Since the remediation efforts proposed are occurring in areas previously undisturbed, documentation of compliance with the Cultural Properties Protection Rule is needed in the Remediation Plan."**

a. I have attached what SMA sent to us regarding an ARMS review by a 3rd party vendor.

If further information is need such as a Class 1 map query, I can get with Advanced Archeological Solutions to fulfill the request.

- b. The release occurred in an area that includes multiple well sites, ROWs, utility lines and roads (two tracks/main thoroughfares). Because all assets located in or near the impacted area are leased by SLO to various stakeholders, I do not expect liabilities related to cultural resources to be a problem. Buffer zones from the initial archeological surveys that were performed prior to development are encountered during lease permitting.
 - c. If the attached cultural resource cover sheet applies to the ARMS request, Vertex will amend the remediation plan, include it with the appendices, and submit the changes to ECO via eco@slo.state.nm.us
2. **"The remediation is occurring in areas with natural vegetation. The remediation plan does not address reclamation of these areas. Please include a reclamation plan of the off-pad areas. Since NMOCD defers to the Surface Owner for reclamation, I am pretty sure the amendment does not need to be submitted to NMOCD, but NMSLO would like to have the written plan on record."**
 - a. NMAC [19.15.29.13](#) accounts for reclamation standards under NMOCD regulations and would be addressed in the final closure report/accounted for. Remediation plans are developed to address the removal of impacted soils and are separate from a formal reclamation plan. Post closure restoration activities default to the stakeholder and their stipulations such as BLM Sundry Notice or SLO C-103 Q for well site reclamation post P & A.
 - b. Vertex performs extensive work pertaining to reclamation in New Mexico. We are also a state approved vendor for the Orphan Well Program. To ensure ECO requirements are met, Vertex will prepare and submit a separate reclamation plan. The affected areas would be ripped to prepare the seed bed and an appropriate seed mix would be chosen that matches background. Soil survey details would be provided and a reclamation with corrective actions inspection would be performed prior to backfilling of the site. The corrective action report tracks vegetative establishment and is an instrument use for subsequent monitoring of sites. NMOCD does not require that level of detail in closure reports. Only affected areas off pad that require restoration would be accounted for and outlined with a GIS based figure. Drone aeriels are typically used, and geo referenced to existing structures if up-to-date imagery if satellite is not available.
3. **"Regarding the sampling variance requestion of 1,000 square feet, NMOCD is the regulatory agency, so NMSLO will defer this approval to NMOCD regarding the sampling variance request."**
 - a. ~~It is anticipated that the sample variance request would be much lower. Upon conditions set by NMOCD, Vertex and Ace will meet the guidance they provide. Assumptions will not be made, and confirmation sampling will only occur until the square footage variance is determined.~~
4. **"Regarding the impacted caliche and the request to leave in place. NMSLO recognizes the challenge of remediation in this lithology. We also have concerns about how this may hinder a successful revegetation. Do you have an idea of how large of an area**

this impacted caliche may be? Would you consider an in-situ treatment of residual chlorides or hydrocarbons within the impacted caliche prior to backfilling? Something that may aid in the breakdown of hydrocarbons or stabilize the chlorides where they will not impact revegetation efforts?"

- a. Vertex and Ace will attempt to meet 19.15.29.13 standard for reclamation of the top 4' in all areas that refusal is not encountered. Extra efforts to see if the caliche can be broken into will be applied. **Moreover, NMOCD may deny the request.** With DTGW being greater than 100-foot bgs and hard pan rock being present, I believe they will consider our position in good faith. Hammering out the rock would contrast with the natural soil lithology in the area and is an arduous/destructive process. If a release occurred within the remediated/backfilled excavation area, fluids will then have a pathway to reach greater depth. A barrier such as bentonite cap or a GCL would also not be suggested as it would not change the predetermined rooting zone created by the hard pan layer. **Guidance was provided by NMOCD via rejection of the proposed action. All soils will be dug and hauled accordingly and to a depth of 4 ft BGS if necessitated. If bottom samples exceed criteria they will be excavated until thresholds are met.**
- b. If soil amendments are deemed necessary, the reclamation plan would cover their application and would be determined through composite sampling of background/vegetated areas near the remediation. Composite sampling of the topsoil used for replacement would also occur (in this case mostly sand). All samples will be sent in for laboratory analysis to compare nutrient composition for potential soil amendment recommendations (ex - Method 9056: Bromide, chloride, fluoride, sulfate, nitrate, nitrite). The initial reclamation plan would account for the background sampling only. Updates would be sent to ECO after a source is established for backfill.
- c. I would like to note that NMOCD will not accept the use of any chemical-based remedial agents for chlorides. The BLM holds the same position. Application of chemical to reduce chlorides would affect closure and will be denied. Additionally, TPH is not an issue at this site. If confirmation samples come back for hydrocarbons greater than the established criteria (100 TPH for 0-4 ft bgs and 2,500 TPH/1,500 GRO+DRO at 4 ft bgs and greater), biomedical agents such as Remediate or Micro-Blaze would be taken into consideration. NMOCD would have to approve their usage prior to treatment.

Kind regards,

Michael

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 265294

CONDITIONS

Operator: TAP ROCK OPERATING, LLC 523 Park Point Drive Golden, CO 80401	OGRID: 372043
	Action Number: 265294
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	Prometheus Remediation Proposal. Attached email contains points of clarification and path forward on the remediation project.	9/14/2023