

From: Fred Holmes
To: [Yu, Olivia, EMNRD](#)
Cc: ["Mann, Ryan"; Billings, Bradford, EMNRD](#)
Subject: RE: Endeavor State NC: 1RP-4710 remediation proposal
Date: Wednesday, April 4, 2018 1:24:14 PM

Olivia: I thought I would give you a quick update on this site.

First, to recap: When I prepared the proposal I had not been to the site. I had been brought into this by Endeavour after delineation had been completed and submitted by others.

I did conduct a site visit on Monday, April 2nd. I have prepared some additional findings from my site visit which I must first present to Endeavor then send forward to you. It does not change a lot of the aspects of the proposed corrective actions or your stipulations. Endeavor has conveyed from an earlier meeting last week that they will opt for the interim approach of excavation and capping to 2 feet bgl per specifications.

I do have one question for Ryan: Can you send me the seed mix specifications that you would like to use in the off pad areas? This would be very helpful. Or, I can defer to the BLM Rock Surface Mix (modified to exclude Boer Lovegrass) which would be the following:

Species	% of Mix	PLS/Acre
Side Oats Grama	30%	3.5
Blue Grama	30%	2.5
Arizona Fescue	10%	1.0
Prairie June Grass	20%	1.0
Annual Rye	10%	7.0
Total PLS		15

I believe based upon surface conditions I observed at the site this would be a good blend for this particular site.

Thank you again for all of your assistance. I look forward to working with you on this project.

Sincerely

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From: Yu, Olivia, EMNRD [mailto:Olivia.Yu@state.nm.us]
Sent: Wednesday, March 28, 2018 9:00 AM
To: Fred Holmes
Cc: Mann, Ryan; Billings, Bradford, EMNRD
Subject: Endeavor State NC: 1RP-4710 remediation proposal

Good morning Mr. Holmes:

Notes

- Permissible chloride level for delineation and remediation is 600 mg/kg, not 650 mg/kg.
- NMOCD approves of the proposed convex-shaped design, key-seated liner. The liner used must be at least 20 mil thickness.
- Laboratory analyses for chlorides of confirmation sidewall samples must be no greater than 50 ft. apart.

NMOCD and NMSLO have reviewed the proposed remediation plan for 1RP-4710 and present the following options. Please inform NMOCD and NMSLO of decision.

1. For full closure, the areas identified with chloride-impacted soil exceeding permissible levels of 600 mg/kg at 4 ft. bgs must be excavated to a maximum of 4 ft. with the proposed liner design. Aerial imagery of the release area does not demonstrate infrastructure that would prevent a 4 ft. excavation due to feasibility or practicability concerns. Methods exist to excavate safely around poly flowlines and steel pipelines.
2. For deferral, the proposed 2 ft. excavation with minimal 20 mil liner is approved. The remaining in situ chloride-impacted soil will be remediation upon abandonment, retrofit, or inactivity of the location.

All excavated areas, without a liner, must have discrete confirmatory bottom samples as well: i.e., the areas represented by SP12 and SP13 may not necessitate a 4 ft. excavation with 20 mil liner.

Please be advised that NMSLO may have additional stipulations, such as revegetation and noxious weed control, for any proposed surface modification or usage.

Thanks,

Olivia Yu
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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.