REDACTED

From: THOMAS Wesley * DEQ <wesley.thomas@deq.oregon.gov>
Sent: Monday, December 4, 2023 4:40 PM
To: Halah Voges <hvoges@anchorqea.com>
Cc: Wyatt, Robert <robert.wyatt@nwnatural.com>; Patricia Dost <pdost@pearllegalgroup.com>; Rob Ede <robe@hahnenv.com>; Jen Mott <jmott@anchorqea.com>; Ryan Barth <rbarth@anchorqea.com>; Crystal, Mike <mdcrystal@sevenson.com>
Subject: RE: Gasco OU Upland Feasibility Study

Halah,

Thank you for the email. Consistent with your email summary below, DEQ is not requiring additional technical meetings before the NW Natural team begins writing the FS. As you mention, DEQ is happy to continue to discuss and provide feedback on FS-related topics during its development. During our review of the draft FS, DEQ will review and comment on information related to the topics that we discussed over the past year.

DEQ would like to clarify a few points related to the 3D model development:

- DEQ continues to recommend that NW Natural work towards developing a robust 3D model, even if certain elements are not complete or final in time to support the draft FS. We believe that a 3D model will be useful for supporting evaluations of remedial alternative effectiveness, reliability, and implementability. In the absence of a 3D model, the FS will need to use other tools to support these evaluations.
- During our November 21st meeting, we also discussed incorporating 3D renderings of basic geological information and noted that Appendix D of the RI/HERA Addendum contains information that could be used to develop those 3D renderings. In addition, we believe that showing the locations and thickness of the upper silt unit would be valuable.

We look forward to receiving the FS at the end of May 2024.

Thanks,

Wes

Wesley Thomas, P.E.

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From: Halah Voges <hvoges@anchorqea.com>
Sent: Friday, December 1, 2023 12:51 PM
To: THOMAS Wesley * DEQ <wesley.thomas@deq.oregon.gov>
Cc: Wyatt, Robert <robert.wyatt@nwnatural.com>; Patricia Dost <pdost@pearllegalgroup.com>; Rob Ede <robe@hahnenv.com>; Jen Mott <jmott@anchorqea.com>; Ryan Barth <rbarth@anchorqea.com>; Crystal, Mike <mdcrystal@sevenson.com>
Subject: Gasco OU Upland Feasibility Study

Wes,

Thank you for confirming we can begin writing the Gasco OU Feasibility Study and that no additional technical meetings are needed. The technical discussions and meetings we've had to discuss and resolve critical FS issues have been very helpful, including:

- Selection of PRGs
- DNAPL mobility analysis
- DNAPL/residual mapping
- Groundwater flow model recalibration
- NAPL dissolution modeling to assist with restoration timeframe evaluation
- Remedial technology assignments, alternatives development, and relationship to site areas and evaluation of hot spots

Two other FS issues we've discussed are the data gaps sampling for Doane Creek and 3D modeling. Those have also been resolved, specifically:

1. Doane Creek FS Data Gap Sampling. Since Doane Creek FS data gap sampling is dependent on finalizing an access agreement with The BNSF Railway Company, DEQ and NW Natural have agreed that currently available data for Doane Creek will be used to develop and evaluate remedial alternatives for this portion of the Siltronic GSA. The evaluation included in the draft FS will be considered preliminary and will be updated in the revised FS using data gaps results.
2. 3D Model. During two technical meetings held on Monday, October 30 and Thursday, November 16, 2023 to discuss remedial alternatives to be evaluated in the FS, the DEQ team emphasized the utility of a 3D model of DNAPL distribution, showing stratigraphy, water table, and possibly other contaminant information. As we discussed, NW Natural has been preparing a 3D model using the available TarGOST data; however, it does not include all of the elements mentioned by DEQ during the meetings. Based on our follow-up discussions and a review of the extensive suite of graphics already developed to address prior DEQ requirements and to support the FS, and the list of additional graphical tools currently being developed (3D TarGOST data visualization, plan view residual maps incorporating multiple lines of evidence, cross-sections, raster maps and an interactive webmap), DEQ has determined that a detailed 3D model is not required for DEQ's review of the Draft FS. If needed to support DEQ's review, DEQ and NW Natural will evaluate the need for additional area specific 3D depictions as part of the remedial design process.

The current Gasco OU FS Schedule was conditionally approved by DEQ in a letter dated July 25, 2023 with establishment of a May 28, 2024 submittal date to DEQ. As noted in the schedule, Draft Gasco OU FS report preparation must begin by November 28, 2023 in order to meet the draft submittal schedule. With this approval to proceed, our target submittal date for the FS is May 28, 2024.
We will continue to conduct regular check-ins with DEQ and appreciate your availability to confer on FS topics that come up during its preparation and look forward to completing this very important project milestone.

Have a great weekend and try to stay dry!

Halah M. Voges, P.E.
Principal Engineer

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