

EPA TECHNICAL REVIEW COMMENTS
2023 Well Decommissioning, Repairs, and Replacement Installation Work Plan
Tesoro Alaska Company LLC
Kenai Refinery
September 1, 2023

The US Environmental Protection Agency (EPA) received on August 28, 2023 the *2023 Well Decommissioning, Repairs, and Replacement Installation Work Plan, Tesoro Alaska Company LLC, Kenai Refinery* (the Work Plan). The Work Plan was prepared by Trihydro Corporation for Tesoro Alaska Company, LLC (Tesoro) and dated July 19, 2023.

In general, the proposed well decommissioning, repairs, and replacement and new well installation activities and procedures are appropriate and followed the Alaska Department of Environmental Conservation (ADEC) guidance documents. The Work Plan is acceptable to EPA pending resolution of the following specific comments discussed below:

1. Page 4, Paragraph after Well Annulus bullets:

This paragraph discusses the replacement and new well development. A new title must be added before the paragraph as “New and Replacement Well Development”. In addition, this paragraph must be revised based on the following comments:

- The proper guidance for well development is the ADEC Monitoring Well Guidance (September 2013), not the ADEC Field Sampling Guidance (January 2022).
- Water quality parameters must be monitored during the well development for their stabilization, which may include conductivity, pH, temperature, and turbidity. When pumped water turbidity is visually low (water becomes clear), these water quality parameters should also be stabilized.
- The new and replacement wells must be developed after at least a 24-hour period following the well completion.

2. **Figure 2:**

The figure must be revised to correct the following errors or inconsistencies with the Work Plan text:

- The Work Plan text describes that bentonite pellets will be installed from the “top of sand (pack) to approximately 5 feet above groundwater (table).” Figure 2 shows that bentonite pellets installed approximately 2 feet above the sand pack; no water table is indicated.
- The text indicating injection well screen section shows “2" Ø SCH. 40 PVC WELL”, which must be corrected as “4" Ø SCH. 40 PVC WELL”.

3. **Figure 3:**

The figure must be revised for the following inconsistencies:

- The figure shows “bentonite grout” seal above the well sand pack, which is inconsistent with the Work Plan text on page 4. For the shallow monitoring wells, bentonite pellets are probably easier to install the annulus seal above the well screen and sand pack than mixing and pumping bentonite grout.
- The figure shows the bentonite grout seal will be installed 3 feet above the top of the sand pack, which is inconsistent with the Work Plan text on page 4. The text describes that bentonite pellets will be installed 5 feet above groundwater table.