From: Warfel, Michael (ECY)
To: Becher, Dave
Cc: "Kucharski, Margaret"; Meg Strong; James Welles; De Leuw, Katie (Consultant)
Subject: VCP NW3242, Montlake Texaco - Revised Opinion Regarding Proposed Monitoring Wells
Date: Monday, March 21, 2022 11:42:31 AM
Attachments: Exhibit 6 - GW Hydrograph.pdf
Exhibit 14 - Recon GW Samples.pdf
Montlake Gas Station Compliance Monitoring Plan Revised Figure 1.pdf

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Hello Dave:

WSDOT brought to my attention that the opinion in my prior email to you dated March 8, 2022 included some errors in soil boring reference numbers and also needed clarification regarding submission of future Site data. This revised opinion provides those corrections and clarifications.

Ecology greatly appreciates the large-scale interim action completed at the Site during July through September 2021. As a follow up to our virtual meeting on March 1 (regarding the WSDOT opinion request on the *Remedial Action Completion Report (RACP)* dated December 20, 2021), Ecology is providing this email opinion in advance of the requested VCP opinion letter. The purpose of this email opinion is to facilitate planning and installation of new monitoring wells at the Site as soon as possible.

We provide the following comments on Appendix G of the *RACP*, *Compliance Groundwater Monitoring Plan (CGMP)*, and revised Exhibit 1 of the *CGMP* (attached for reference):

- Ecology concurs with the locations of proposed monitoring wells MW-6-21 and MW-7-21, and inclusion of existing monitoring wells MW-2-19 and H-667p-15 in the monitoring well network.

- The following large historical exceedances of Method A groundwater cleanup levels were documented at the Site prior to implementation of the interim action, as illustrated in the *Remedial Investigation Report (RIR)*, March 2020:

Contaminants	Maximum Concentration, µg/L	Method A Cleanup Level, µg/L
TPH-G	110,000	800
TPH-D+O	36,900	500
Benzene	8,700	5
Xylenes	18,600	1,000

  Two locations where prior groundwater samples showed large exceedances of Method A cleanup levels were reconnaissance borings SB-7-19 and H-19-18, as shown on Exhibit 14 of the *RIR* (attached for reference). As the Site moves into confirmational groundwater monitoring and evaluation of the need for an environmental covenant, characterization of groundwater quality beneath the entire Site is critical. Therefore, Ecology recommends installation of two additional monitoring wells at the locations of these two former borings.

- Ecology recommends the following regarding installation of new monitoring wells:
    - Set screened intervals such that the tops of the screens are above the seasonal high water table (approximately 51 feet NAVD88), and deep enough to provide samples at the seasonal low water table (approximately 39 feet NAVD88), per Exhibit 6 of the *RIR* (attached for reference). Screening the wells below the excavation backfill should not be used a criterion for well completion.
    - Survey the top rims of new well casings to NAVD88 vertical datum, to the nearest 0.01 foot.
    - Submit monitoring well installation information to Ecology with a cover letter that includes well construction diagrams, geologic logs, and well development documentation.
- Ecology recommends the following regarding the groundwater compliance monitoring plan:
    - Remove the ORC sock from monitoring well MW-3-19 as soon as possible, such that equilibrium conditions occur prior to the next groundwater monitoring event.
    - Include upgradient monitoring well MW-2-19 in the next groundwater monitoring event.
    - Submit quarterly compliance groundwater monitoring data to Ecology with a cover letter that includes:
        - Updated piezometric surface elevation map (NAVD88 vertical datum);
        - Site map showing sampling results for each monitoring well;
        - Adding of TPH-D + TPH-O results in tables and on figures, for comparison to the Method A cleanup level of 500 µg/L; and
        - Confirmation that data from the sampling event will be uploaded to the Ecology Environmental Information Management (EIM) database.
- Ecology concurs with the proposed groundwater sample collection methods and analytical parameters.

Ecology will provide detailed comments on the remainder of the *RACP* in the pending VCP opinion letter.

Sincerely,

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