HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS

October 16, 2023

Mr. Wes Thomas Oregon Department of Environmental Quality Northwest Region, Portland Office Portland Harbor Section 700 NE Multnomah Street, #600 Portland, Oregon 97232

HAI Project No. 2708 DEQ ECSI File No. 84

SUBJECT: Progress Report, NW Natural Site, 7900 NW St. Helens Avenue and 7200 NW Front Avenue, Portland, Oregon

Dear Mr. Thomas,

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report to summarize Remedial Investigation/Feasibility Study (RI/FS) and source control-related work conducted by NW Natural relating to historic manufactured gas plant (MGP) activities at the NW Natural Site during the month of September 2023. NW Natural is completing upland investigation and cleanup activities at the NW Natural Site under the Voluntary Agreement No. ECVC-WMCVC-NWR-94-13 (Voluntary Agreement) between NW Natural and the Oregon Department of Environmental Quality (DEQ).

1. ACTIONS TAKEN UNDER THE VOLUNTARY AGREEMENT DURING THE PREVIOUS MONTH

Tasks related to maintenance of the HC&C system and the groundwater treatment system were conducted during September 2023, with the system operating in full long-term operational mode.

A total of 7,785,404 gallons of water were treated in the on-site groundwater treatment plant and discharged during September 2023 with all monitoring and reporting completed in accordance with the facility's NPDES permit.

Field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at Fill water bearing zone (WBZ) well locations MW-6-32 and MW-13-30 occurred during September 2023. Recovered fluids (accumulating since tank emptying on April 28, 2022) are estimated to be between 50% and 60% DNAPL with 451 gallons of total fluids in tank storage. The tank reached capacity during late July and the auto shut-off feature has been enabled until the tank contents can be removed for disposal. Confirmation of the existing disposal profile and coordination for transfer of the tank contents to 55-gallon drums for transport to the disposal facility occurred during September.

DNAPL entry into Fill WBZ Trench T-50 was first observed during August 2022 with subsequent plumbing of a DNAPL pump within the sump at this location. To date approximately 354 gallons of DNAPL have been recovered from the T-50 sump, approximately 13 gallons of which were recovered during September 2023.

Routine groundwater monitoring activities as part of the Integrated Groundwater Monitoring Program were completed during September 2023. Baseline DNAPL removal as needed to maintain levels below the top of the well sumps was conducted by Anchor QEA during September 2023 in the following wells near the river shoreline.

- MW-26U
- MW-27U
- MW-38U
- PW-2L
- PW-6U
- PW-13U
- PW-14U

Water removal from the Koppers Basin continued during September 2023 as needed to keep the basin free of standing water. A total of 32,331 gallons of water were removed from the basin during September 2023 with treatment through the Groundwater Treatment System. Visual observations during September confirmed that the basin remained free of standing water during this timeframe.

The following upland FS related field tasks were in progress during September 2023:

 Monthly measurements of DNAPL presence at Fill WBZ wells MW-10-25, MW-43F, MW-44F, and MW-45F were conducted during September 2023. A trace amount of DNAPL, 0.01 feet, was present in wells MW-43F; no measurable DNAPL was measured in MW-44F; 1.48 feet of DNAPL was measured within well MW-45F; and 1.15 feet of DNAPL was measured within well MW-10-25 during September. The DNAPL from well MW-45F (0.25 gallons) was last removed on July 18, 2023. The DNAPL from MW-10-25 (0.7 gallons) was last removed on November 18, 2022.

2. ACTIONS SCHEDULED TO BE TAKEN IN THE NEXT MONTH

NW Natural and DEQ technical working group communications and meetings will occur as needed within the next month to discuss ongoing project tasks.

Recovered fluids within the storage tank for Fill WBZ DNAPL extraction system well locations MW-6-32 and MW-13-30 (accumulating since the last tank emptying on April 28, 2022) will be transferred to 55-gallon drums during October (completed on October 4, 2023) pending transport for permitted disposal (fuel blending).

Routine baseline DNAPL measurements and removal will continue as needed to maintain levels below the top of the well sumps in nearshore HC&C-related wells. Baseline measurement and removal of DNAPL from additional select upland area wells will also continue.

Tasks related to routine maintenance of the HC&C system and the groundwater treatment system will be conducted.

The Koppers tank basin will continue to be visually monitored to ensure that it remains free of standing water.

The collection of soil embankment samples and surface sediment samples from Doane Creek as described in the January 25, 2023 *Feasibility Study Comprehensive Data Gaps Work Plan*, conditionally approved by DEQ in correspondence dated February 13, 2023, will be completed pending execution of access agreements with BNSF and Portland and Western Railroads.

Monitoring since September 2017 indicates that DNAPL proximate to wells MW-43F and MW-44F has not been sufficiently mobile to accumulate the minimum thickness required for sampling (0.5 feet). A DNAPL sample will be collected for laboratory DNAPL mobility assessment testing from wells MW-43F and MW-44F if measurable thicknesses / sufficient volumes of DNAPL are identified at these locations in the future.

A sample of water discharging from City of Portland Outfall 22C may be collected at the discretion of the project team during October if storm event sampling criteria, as specified in the DEQ-approved *Doane Creek Source Control Evaluation Workplan* (updated sampling criteria as approved March 20, 2023) are satisfied.

3. LABORATORY TEST RESULTS RECEIVED DURING THE PREVIOUS MONTH

NW Natural receives test results on a regular basis as a result of routine monitoring related to groundwater quality or as specified by various permit requirements. Additionally, test results are periodically received through implementation of task-specific investigation activities resulting from agency-approved work plans. These data are provided to DEQ or the permitting authority (if different than DEQ) in accordance with previously approved formats and schedules.

4. PROBLEMS EXPERIENCED DURING THE PREVIOUS MONTH

There were no problems of significance experienced during the previous month.

Should you have any questions, please contact the undersigned.

Sincerely,

Robert Ede

Rob Ede, R.G. Principal

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