

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

March 16, 2020

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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**

Mr. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report to summarize Remedial Investigation/Feasibility Study (RI/FS) and source control-related work activities conducted by NW Natural relating to historic manufactured gas plant (MGP) activities at the NW Natural Site during the month of February 2020. NW Natural is completing upland investigation and cleanup activities at the NW Natural Site under the Voluntary Agreement No. ECVV-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 February 2020, with the system operating in full long-term operational mode.

A total of 8,400,789 gallons of water were treated in the on-site groundwater treatment plant and discharged during February 2020 with all monitoring and reporting completed in accordance with the facility's NPDES permit.

HAI field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at Fill WBZ well locations MW-6-32 and MW-13-30 occurred during February 2020. The system recovered approximately 38 gallons of fluids in February, estimated to be approximately 40% DNAPL.

Weekly manual water level measurements within the former Koppers tank basin and select adjacent wells and piezometers were completed during February 2020.

Baseline DNAPL removal as needed to maintain levels below the top of the well sumps was conducted by Anchor QEA during February 2020 in the following wells near the river shoreline.

- DW-14U
- MW-18-30
- MW-26U
- PW-2L

The following upland FS related field tasks were in progress during February 2020:

- Weekly measurements of DNAPL presence at Fill WBZ wells MW-43F, MW-44F, and MW-45F have been conducted since August 2017. During February, measurements recorded up to 0.03 feet of DNAPL in the base of well MW-43F (black; high viscosity appearance); no accumulation of DNAPL within well MW-44F (none recorded to date, though probe tip shows a sheen); and up to 1.65 feet of DNAPL within well MW-45F (brown; low viscosity appearance).

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.

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.

Routine groundwater monitoring activities as part of the Integrated Groundwater Monitoring Program will occur during March 2020.

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

Weekly manual water level measurements within the former Koppers tank basin and select adjacent wells or piezometers will occur during March 2020.

A DNAPL sample will be collected for laboratory DNAPL mobility assessment testing from wells MW-43F and MW-44F should measurable thicknesses / sufficient volumes be identified at these locations during this timeframe. It is estimated that a minimum thickness of 0.5 feet of DNAPL accumulation will be necessary in order to collect sufficient sample volume for the laboratory.

3. LABORATORY TEST RESULTS RECEIVED DURING THE PREVIOUS MONTH §

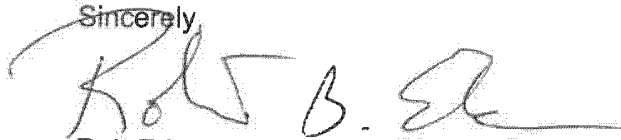
NW Natural receives test results on a regular basis as a result of routine monitoring related to groundwater quality or as specified by various permit requirements. Additionally, test results are periodically received through implementation of task-specific investigation activities resulting from agency-approved 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,



Rob Ede, R.G.
Principal

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cc: Mr. Bob Wyatt, NW Natural
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