

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

September 15, 2014

Mr. Dana Bayuk
Oregon Department of Environmental Quality
Northwest Region, Portland Office
Portland Harbor Section
2020 SW Fourth Avenue, Suite 400
Portland Oregon 97201-4987

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. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report summarizing 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 August 2014. NW Natural is completing upland investigatory 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).

1.0 Communications and Document Submittals

In correspondence dated August 8, 2014 (John Edwards to Dana Bayuk), Anchor QEA provided correspondence describing plans to install two additional upper alluvium extraction wells (PW-15U and PW-16U) in Segment 2 at Gasco. Follow-up discussions related to this request were conducted in August, with agreements on well construction protocols described in the August 21, 2014 email from John Renda to Dana Bayuk.

Program management implementation calls were conducted with DEQ on August 7, 2014 and August 21, 2014 to discuss NW Natural program management and project schedules.

In correspondence dated August 8, 2014 (Jeff Warren to Dana Bayuk), Anchor QEA, on behalf of NW Natural, provided responses to DEQ's July 15, 2014 comments on the *Fill Water Bearing Zone (WBZ) Trench Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP)*, dated June 2014.

In correspondence dated August 13, 2014 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural provided information and an approach to determine the existence of the old basalt zone water supply well at Gasco.

In correspondence dated August 19, 2014 (Ben Hung to Dana Bayuk), Anchor QEA, on behalf of NW Natural, provided a response to DEQ's July 24, 2014 response to NW Natural's revised proposal for resolution of key DEQ conditions for approval of the HERA Report.

In correspondence dated August 22, 2014 (Dana Bayuk to Ben Hung), DEQ provided estimated soil total petroleum hydrocarbon (TPH) concentrations and hazard quotients (HQs) for incorporation into the revised HERA Report.

In correspondence dated August 27, 2014 (Dana Bayuk to Bob Wyatt) DEQ provided comments and conditional approval of the *Fill WBZ Trench SAP and QAPP*, subject to revisions and resubmittal of this document as per DEQ's comments.

2.0 Field Work

Installation activities as related to two additional upper alluvium extraction wells (PW-15U and PW-16U) in Segment 2 were initiated during the last week of August.

HAI field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at surficial fill well locations MW-6-32 and MW-13-30 occurred during August. The system recovered approximately 14 gallons of fluids, primarily DNAPL, during this time. The pump was removed from well MW-6-32 during the latter part of August for return to the supplier for reconditioning.

Tasks related to optimization of the hydraulic control and containment system and the wastewater treatment system (continued operation and testing) were conducted in August 2014.

Baseline DNAPL removal as needed to maintain at levels below the tops of the well sumps, was conducted by Anchor QEA in the following wells near the river shoreline.

- MW-26U
- MW-27U
- MW-38U
- MW-PW-2L
- PW-2L
- WS-14-161

On March 31, 2014 NW Natural discontinued discharges of treated groundwater to the sanitary sewer (Industrial Wastewater Discharge Permit 500.022), with all water instead being directed to NW Natural's on-site wastewater treatment plant followed by discharge to the Willamette River via permitted outfall National Pollutant Discharge Elimination System (NPDES) Permit No. 103061 (expires August 31, 2018). Results from NW Natural's NPDES effluent sampling are provided to DEQ in Discharge Monitoring Reports that are submitted on a monthly basis in accordance with the permit. As of August 31, 2014 a total of 60,148,760 gallons of treated water were discharged under the NPDES permit.

3.0 Anticipated Activities September and October 2014

A site tour with representatives of NW Natural, Siltronic, and DEQ is scheduled to occur on September 5, 2014.

NW Natural and DEQ technical working group communications and meetings are anticipated to occur as needed during September and October 2014 to discuss ongoing project tasks, including DEQ-requested revisions to the Gasco HERA document.

NW Natural will submit during September a "Final Fill WBZ Trench Sampling and Analysis Plan and Quality Assurance Project Plan – NW Natural Gasco Site" as per DEQ's August 27, 2014 conditional approval of this document. The Final SAP/QAPP document was submitted to DEQ on September 12, 2014..

Groundwater sampling activities as described within the Integrated Groundwater Monitoring Program (combined HC&C system Performance Monitoring and the Routine Monitoring Programs) are anticipated to be scheduled, as soon as details regarding DEQ's request to incorporate TPH testing into the groundwater analyte list at select locations are agreed upon. HAI submitted a proposal for incorporating TPH testing into the groundwater analyte list to DEQ on September 5, 2014. The next sampling event will constitute NW Natural's third quarter 2014 monitoring event for the Gasco and Siltronic properties.

Initiation of supplemental Doane Creek investigation activities remains contingent upon receipt of DEQ confirmation that the analyte list and screening levels are suitable for the Siltronic MGP Human Health and Ecological Risk Assessment. Legal access agreements with the off-site property owner (Burlington Northern Railroad) will also be necessary prior to initiation of field activities.

Transport and recycling of the oil-water mixture originating from the TCE CMMA of the NW Natural Gasco Site will be scheduled following further feedback and discussion with DEQ. DEQ provided feedback regarding this item in a letter dated September 4, 2014.

A meeting with DEQ, NW Natural, and Siltronic has been scheduled for October 8, 2014 to discuss the status of upland project work being conducted on the Gasco and Siltronic properties.

The following reports and work plans for the Site have been submitted to DEQ through the date of this progress report. Unless otherwise noted, NW Natural has not received DEQ comments on these documents.

- NW Natural's June 5, 2014 request (Rob Ede to Dana Bayuk) requesting concurrence of a final proposed analyte list and screening levels for use in the Doane Creek-related FSP being conducted as part of the Siltronic property RI.
- Request for concurrence for transport and recycling of oil-water mixtures originating from the Trichloroethene Contaminated Media Management Area (TCE CMMA) of the NW Natural Gasco Site (Tim Stone to Dana Bayuk), dated June 13, 2014. As noted above, DEQ provided feedback regarding this item in a letter dated September 4, 2014.
- *Waste Determination for Filter Press Cake and Bag Filter Solids Generated at the Gasco Wastewater Treatment Plant*, transmitted by ADA (Terry Driscoll to Dana Bayuk), dated July 21, 2014. Discussions with DEQ regarding this item have been ongoing. DEQ also provided feedback regarding this item in a letter dated September 4, 2014.
- *Response to DEQ Request for Supplemental Information on Location of Former Industrial Use Supply Well, Mult 802, NW Natural Gasco Property*, transmitted by HAI (Rob Ede to Dana Bayuk), dated August 13, 2014.
- *Revised Final Model Update Report*, transmitted by Anchor QEA on August 22, 2014 (Pradeep Mugunthan to Dana Bayuk).
- *Proposed Inclusion of Total Petroleum Hydrocarbon (TPH) Testing within the NW Natural Integrated Groundwater Monitoring Program, Gasco and Siltronic Properties, Portland, Oregon*, transmitted by HAI (Rob Ede to Dana Bayuk), dated September 5, 2014.

- *Gasco Groundwater Source Control Extraction System Phase 1 Step 5 Test Data Report*, transmitted by Anchor QEA on September 9, 2014 (John Renda to Dana Bayuk).

Should you have any questions, please contact the undersigned.

Sincerely,



Rob Ede, R.G.
Principal

robe@hahnenv.com

- c:
- Mr. Bob Wyatt, NW Natural (electronic only)
 - Ms. Patty Dost, Pearl Legal Group PC (electronic only)
 - Ms. Sarah Riddle, Pearl Legal Group PC (electronic only)
 - Mr. Carl Stivers, Anchor QEA, L.L.C. (electronic only)
 - Mr. John Edwards, Anchor QEA, L.L.C. (electronic only)
 - Mr. Ben Hung, Anchor QEA, L.L.C. (electronic only)
 - Mr. Ryan Barth, Anchor QEA, L.L.C. (electronic only)
 - Mr. Henning Larsen, DEQ NW Region (electronic only)
 - Mr. Tom Gainer, DEQ NW Region (electronic only)
 - Mr. Keith Johnson, DEQ NW Region (electronic only)
 - Mr. Myron Burr, Siltronic Corporation (electronic only)
 - Ms. Kristine Koch, Region 10 EPA (electronic only)
 - Mr. Sean Sheldrake, Region 10 EPA (electronic only)
 - Mr. Rene Fuentes, Region 10 EPA (electronic only)
 - Mr. Lance Peterson, CDM, Inc. (electronic only)