

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

August 15, 2012

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 Gasco Property, 7900 NW St. Helens 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 that have occurred relating to the Gasco property during the month of July 2012. NW Natural is completing upland investigatory activities at the subject property 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

A meeting between representatives of DEQ and NW Natural was conducted on July 2, 2012 to discuss technical items and scheduling related to source control design and construction.

Communications between DEQ and AQ occurred in early July to respond to DEQ questions on details related to sample handling and compositing for the TPH Fraction Data Gap Sampling Field Work.

In e-mail correspondence dated July 17, 2012 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, submitted the *Environmental Monitoring Report, First and Second Quarter 2011, NW Natural Gasco Facility*, dated July 12, 2012.

In e-mail correspondence dated July 18, 2012 (Tim Stone to Dana Bayuk), Anchor QEA, on behalf of NW Natural, submitted a letter requesting DEQ concurrence regarding proposed disposal of investigation-derived water generated by NW Natural within the spent TCE Contaminated Media Management Area (CMMMA).

In e-mail correspondence dated July 18, 2012 (Dana Bayuk to John Edwards), DEQ provided comments on Appendix F (Groundwater Model Documents) of the Revised Source Control Construction Design Report (CDR) including EPA comments on their review of the entire CDR document.

In e-mail correspondence dated July 23, 2012 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, submitted a Field Sampling Plan to DEQ related to groundwater monitoring well installation as part of NW Natural's supplemental RI activities at the Siltronic property.

2.0 Field Work

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 July. The system recovered approximately 18 gallons of fluids (primarily DNAPL) during July. No DNAPL was manually removed from well PW-01-80 during July.

Discharge of treated water (groundwater from the LNG containment basin) to the City of Portland sanitary sewer was initiated on March 16, 2007 under Temporary Wastewater Discharge Permit 500.022 (expires February 15, 2017). Results from NW Natural's effluent sampling are provided to BES in Discharge Monitoring Reports that are submitted for any month that effluent sampling occurs – which is at least quarterly in accordance with the permit. As of July 31, 2012 a total of 6,814,881 gallons of treated water have been discharged to the sanitary sewer in 2012.

Implementation of the field work as described in the *2012 Field Sampling Plan, TPH Fraction Data Gap Sampling, NW Natural Gasco Site* was conducted by Anchor QEA on behalf of NW Natural between July 9 and July 11.

3.0 Anticipated Activities in August and September 2012

NW Natural and DEQ technical working group communications and meetings are anticipated to occur as needed during August and September 2012 to work toward approval of proposed workplans and discuss ongoing project tasks. A meeting with DEQ, EPA, and NW Natural was conducted on August 1 to discuss technical items and scheduling related to source control design and construction.

Anchor QEA will continue evaluation of the upper alluvium extraction well step test data and anticipates submittal of a Memorandum describing upper alluvium extraction well installation, development, and step testing in August (submitted August 1).

Permitting and pre-construction related activities associated with the groundwater source control system will be conducted during the August and September timeframe.

DEQ is presently reviewing information related to the Beneficial Water Use Determination for the Alluvium Water-Bearing Zone at Gasco as discussed during May and June. A decision or additional feedback is anticipated from DEQ during the August timeframe.

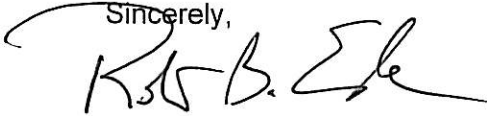
The following reports and work plans for the Site have been submitted to DEQ through the date of this progress report. Unless otherwise noted, these reports and work plans have not received DEQ review and comment.

- *Source Control Evaluation Report, "Segment 3" Siltronic Property Related to NW Natural "Gasco" Site*, February 19, 2009, Anchor QEA. Based on DEQ feedback, DEQ review of this document is prioritized behind reviews for Segments 1 and 2 Source Control Design documents and upland Risk Assessment-related reviews.
- *Final Stormwater Source Control Data Summary Report*, September 2010, Anchor QEA. Based on DEQ feedback, DEQ review of this document is prioritized behind reviews for Segments 1 and 2 source control design documents and upland risk assessment-related reviews.

- *Remedial Investigation Data Summary Report, Historical Manufactured Gas Plant Activities, Siltronic Corporation Property*, March 31, 2011, HAI. Based on DEQ feedback, it is understood that DEQ review is being conducted at this time, but the priority is lower than source control and risk assessment items.
- *Draft Revised Groundwater Source Control Construction Design Report (CDR)*, January 31, 2012, Anchor QEA. Along with the CDR the two work plans listed below were submitted to DEQ. DEQ provided comments from review of the CDR and associated work plans in correspondence dated August 9, 2012.
 - *Upper Alluvium Extraction Well Design Work Plan* (Anchor QEA, 2012).
 - *Work Plan to Assess Baseline Groundwater Conditions* (Anchor QEA, 2012).
- *Proposed Revisions to the Routine Groundwater Monitoring NW Natural – Gasco Facility*, dated March 9, 2011 (HAI, 2012). As of April 13, DEQ approval of modifications regarding cyanide testing has been received, but remaining proposed modifications remain under review. NW Natural and DEQ are currently in discussion concerning the outstanding proposed modifications. An updated proposal, to supplement that already provided, will be submitted to DEQ in August (submitted August 14).
- *Work Plan, Human Health and Ecological Risk Assessment, NW Natural Gasco Site, March 2012* (Anchor QEA, 2012).
- *Supplemental Remedial Investigation Field Sampling Activities, Doane Creek Embankment Soil and Sediment, Siltronic Corporation Property*, dated March 29, 2012 (HAI, 2012).
- *Supplemental Remedial Investigation Field Sampling Activities, DNAPL Characterization, Siltronic Corporation Property*, dated April 23, 2012 (HAI, 2012).
- *Discharge of Groundwater Monitoring Purge Water, NW Natural – Gasco Property*, dated May 24, 2012 (HAI, 2012).
- *Intent to Dispose of Water Generated within the Trichloroethene Contaminated Media Management Area*, dated July 18, 2012 (Anchor QEA, 2012)
- *Supplemental Remedial Investigation Field Sampling Activities, Groundwater Monitoring Well Installations, Siltronic Corporation Property*, dated July 23, 2012 (HAI, 2012).
- *Update to Proposed Revisions to Groundwater Monitoring Program, NW Natural – Gasco Facility*, dated August 14, 2012 (HAI, 2012)

Should you have any questions, please contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "Rob Ede". The signature is fluid and cursive, with a large initial "R" and "E".

Rob Ede, R.G.
Principal

robe@hahnenv.com

- c: Ms. Sandra Hart, NW Natural (electronic only)
- 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. Tom McCue, 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. Chip Humphrey, Region 10 EPA (electronic only)
- Mr. Lance Peterson, CDM, Inc. (electronic only)