

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

May 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 April 2012. NW Natural is completing upland investigatory activities at the subject property under the Voluntary Agreement No. ECVV-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 April 5, 2012 (Dana Bayuk to Bob Wyatt) DEQ and EPA provided comments on the *Wastewater Treatment Final Design Report* (Sevenson, 2012).

In correspondence dated April 10, 2012 (Dana Bayuk to Bob Wyatt), DEQ provided comments on the Revised *Field Sampling Plan (FSP) for TPH Fraction Data Gap Sampling*, March 8, 2012, Anchor QEA.

In correspondence dated April 13, 2012, (Ben Hung to Dana Bayuk), Anchor QEA, on behalf of NW Natural, provided a general agenda for the regularly scheduled April 16 monthly project meeting with DEQ.

A meeting with representatives of NW Natural, Siltronic, and DEQ was held on April 16, 2012 to discuss source control design items as well as to review DEQ comments on the Revised *FSP for TPH Fraction Data Gap Sampling*. Following the meeting there was extensive email correspondence between Anchor QEA and DEQ regarding the Revised FSP for TPH Fraction Data Gap Sampling.

In e-mail correspondence dated April 16, 2012 (John Edwards to Dana Bayuk), Anchor QEA, on behalf of NW Natural, transmitted a Technical Memorandum (Michael Riley to John Edwards) providing information as requested by DEQ and EPA documenting modifications to the Gasco groundwater model since 2008. The technical memorandum is a supplement to Appendix F of the January 31, 2012 *Revised Groundwater Source Control Construction Design Report*.

In correspondence dated April 16, 2012 (Dana Bayuk to Bob Wyatt), DEQ provided a response to NW Natural's February 1, 2012 letter regarding the human health and ecological risk assessment at Gasco.

In correspondence dated April 23, 2012 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, submitted to DEQ a Field Sampling Plan related to DNAPL characterization 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 April. The system recovered approximately 62 gallons of fluids (primarily DNAPL) during April. No DNAPL was manually removed from well PW-01-80 during April.

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 of 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 March 29, 2012 a total of 4,617,964 gallons of treated water have been discharged to the sanitary sewer in 2012.

Upper alluvium extraction wells PW-2U, 3U, 5U, and 6U were installed during April. Step drawdown tests were completed at PW-3U, PW-5U, and PW-6U.

TarGOST borings were completed in April adjacent to the locations of extraction wells PW-2, PW-3, PW-5, PW-14, and PW-6.

The First Quarter 2012 routine groundwater monitoring event was initiated in late March, with groundwater sample collection activities continuing through April 11, 2012.

3.0 Anticipated Activities in May and June 2012

NW Natural and DEQ technical working group communications and meetings are anticipated to occur during May and June 2012 to work toward approval of proposed workplans and discuss ongoing project tasks.

Initial step drawdown testing of extraction well PW-2U was completed in May. That well had unexpectedly low yield, so additional screen development is planned for May (currently in progress). If that development improves the apparent yield, additional step drawdown testing will be conducted at PW-2U.

DEQ and NW Natural will meet in May (met on May 2) to discuss the Beneficial Water Use Determination for the Alluvium Water-Bearing Zone at Gasco. Follow-up research and discussions related to this item are expected to occur in May in an effort to reach an agreeable resolution.

NW Natural's responses to DEQ and EPA comments on the *Wastewater Treatment Final Design Report* will be provided in May.

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.
 - *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.
- *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).

Should you have any questions, please contact the undersigned.

Sincerely,



Rob Ede, R.G.
Principal

robe@hahnav.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)