

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

July 16, 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 June 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

In correspondence dated June 7, 2012 (Dana Bayuk to Bob Wyatt), DEQ provided conditional approval of NW Natural's May 29, 2012 *TPH Fraction Data Gap Sampling Field Sampling Plan (FSP)*. Several e-mail exchanges followed, with a final electronic FSP submitted to and approved by DEQ on June 14, 2012. Hard copies of the FSP were submitted to DEQ in correspondence dated June 19, 2012 (Taku Fuji to Dana Bayuk).

In e-mail correspondence dated June 12, 2012 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, provided notice to DEQ of groundwater monitoring activities scheduled to occur later in June. DEQ acknowledged the notification in e-mail correspondence dated the same day.

In e-mail correspondence dated June 15, 2012 (Ben Hung to Dana Bayuk), Anchor QEA, on behalf of NW Natural, provided concurrence with DEQ that the regularly scheduled technical meeting with DEQ and NW Natural would not be necessary in June.

In e-mail correspondence dated June 15, 2012, (John Renda to Dana Bayuk), Anchor QEA, on behalf of NW Natural, provided a memo to DEQ entitled, *NW Natural Gasco Site Upper Alluvium Extraction Well and Grain Size Sample Intervals and Recommended Screen Intervals*, which included recommendations for upper alluvium extraction well grain size sample intervals and recommended screen intervals.

In e-mail correspondence dated June 18, 2012 (Taku Fuji to Dana Bayuk), Anchor QEA, on behalf of NW Natural, provided notice to DEQ that sampling activities as related to the *TPH Fraction Data Gap Sampling FSP* were scheduled to commence on Monday July 9.

A meeting between representatives of EPA, DEQ, the U.S. Army Corps of Engineers and NW Natural was conducted on June 25, 2012 to discuss environmental issues as related to the Gasco and US Moorings properties.

In e-mail correspondence dated June 28, 2012, (Dana Bayuk to John Renda), DEQ provided comments on the memo, *NW Natural Gasco Site Upper Alluvium Extraction Well and Grain Size Sample Intervals and Recommended Screen Intervals*. DEQ's comments also provided recommendations for extraction well screens and well construction alternatives.

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 June. The system recovered approximately 18 gallons of fluids (primarily DNAPL) during June. Seven gallons of DNAPL was manually removed from well PW-01-80 during June.

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 June 29, 2012 a total of 6,3128,792 gallons of treated water have been discharged to the sanitary sewer in 2012.

The second quarter groundwater monitoring activities, consisting of groundwater elevation and DNAPL presence/thickness measurements at both the Gasco and adjacent Siltronic properties, was conducted by HAI on June 18, 2012.

Step drawdown testing for upper alluvium extraction wells PW-2U, 3U, 5U, and 6U was completed by Anchor QEA in June.

3.0 Anticipated Activities in July and August 2012

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

Anchor QEA will continue evaluation of the upper alluvium extraction well step test data in July. 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 July timeframe.

In a June 15 email DEQ approved the *2012 Field Sampling Plan, TPH Fraction Data Gap Sampling, NW Natural Gasco Site*. The field work is expected to be conducted in July 2012 (completed July 9 through 11).

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.

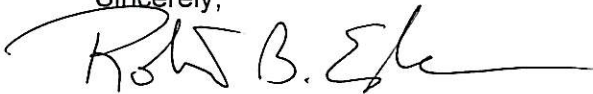
- *Source Control Evaluation Report, "Segment 3" Siltronic Property Related to NW Natural "Gasco" Site*, February 19, 2009, Anchor QEA. Based on DEQ feedback, DEQ review of this document is prioritized behind reviews for

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).
- *Discharge of Groundwater Monitoring Purge Water, NW Natural – Gasco Property*, dated May 24, 2012 (HAI, 2012).

Should you have any questions, please contact the undersigned.

Sincerely,



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)