

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

September 17, 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 August 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

Anchor QEA, on behalf of NW Natural, submitted a Memorandum to DEQ dated August 1, 2012 (John Renda to Dana Bayuk) providing the *Summary Report of Upper Alluvium Extraction Well Installation, Development, and Step Testing*.

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.

In correspondence dated August 9, 2012 (Dana Bayuk to Bob Wyatt), DEQ provided comments on the *Revised Groundwater Source Control Construction Design Report (CDR)*, including a response to NW Natural's November 4, 2011 letter commenting on DEQ's September 22, 2011 comments on the *Revised Interim Design Report*.

An August 13 teleconference was held between Anchor QEA, DEQ, and EPA to discuss agency comments on the August 1 Step Test memo.

Anchor QEA, on behalf of NW Natural, submitted a Memorandum to DEQ dated August 13, 2012 (John Renda to Dana Bayuk); Grain Size Test Results for Upper Alluvium Extraction Wells. This memo provides the designs for the extraction wells to be located at PW-1U, PW-4U, PW-11U, PW-12U, PW-13U, and PW-14U.

In correspondence dated August 14, 2012 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, provided a letter modifying a March 9, 2012 request concerning proposed changes to the routine groundwater monitoring program at Gasco.

A meeting between representatives of DEQ, EPA and NW Natural was conducted on August 20, 2012 to discuss technical items, scheduling, permit activities, DEQ comments on the CDR, and pending DEQ reviews for Gasco and Siltronic-related documents or activities.

In e-mail correspondence dated August 22, 2012 (Ben Hung to Dana Bayuk), Anchor QEA provided DEQ with a link to download existing building plans for the Gasco Wastewater Treatment Plant Building as currently under review by the City of Portland.

In correspondence dated August 24, 2012 (Dick Pederson to Margaret Kirkpatrick), DEQ described its intended use of polycyclic aromatic hydrocarbon (PAH) data collected during a recent sampling effort conducted by NW Natural and committed that DEQ would not request further data collection for the risk assessments.

In correspondence dated August 31, 2012 (John Edwards to Dana Bayuk), Anchor QEA transmitted NW Natural's letter regarding the Agreement to Construct the Groundwater Source Control Extraction System and Performance Monitoring Network.

In e-mail correspondence dated August 31, 2012 (Rob Ede to Dana Bayuk), HAI provided DEQ with notice of pending routine groundwater monitoring activities for the Gasco property, with these activities to commence September 10, 2012.

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 August. The system recovered approximately 15 gallons of fluids (primarily DNAPL) during August. Approximately 3.7 gallons of DNAPL were manually removed from well PW-01-80 during August.

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 August 31, 2012 a total of 7,142,608 gallons of treated water have been discharged to the sanitary sewer in 2012.

3.0 Anticipated Activities in September and October 2012

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

Permitting and pre-construction related activities associated with the groundwater source control system will be conducted during the September and October timeframe. Installation of the approved alluvium water-bearing zone extraction and performance monitoring wells is scheduled to commence in mid-September and is expected to continue through December.

DEQ's August 9, 2012 comments on the *Draft Revised Groundwater Source Control Construction Design Report (CDR)* will be reviewed and a detailed response provided to DEQ, including a plan to resolve disagreements, if any.

Routine groundwater monitoring activities as conducted by NW Natural at the Gasco and adjacent Siltronic properties will occur during September.

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 September 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, NW Natural has not received DEQ comments on these documents.

- *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.
- *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).
- *Summary Report of Upper Alluvium Extraction Well Installation, Development, and Step Testing*, dated August 1, 2012 (Anchor QEA, 2012). Note that NW Natural received verbal comments and requests for further information on this report during the August 20 meeting with DEQ.
- *Grain Size Test Results for Upper Alluvium Extraction Wells*, dated August 13, 2012 (Anchor QEA, 2012). DEQ provided comments and conditional approval in a September 12, 2012 e-mail (Dana Bayuk to John Edwards)
- *Update to Proposed Revisions to Groundwater Monitoring Program, NW Natural – Gasco Facility*, dated August 14, 2012 (HAI, 2012). DEQ provided partial approval to the requested modifications in e-mail correspondence dated September 10, 2012 (Dana Bayuk to Rob Ede)

Should you have any questions, please contact the undersigned.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rob Ede". The signature is stylized with a large initial "R" and a long horizontal stroke at the end.

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)