

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

November 15, 2013

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 October 2013. 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 October 1, 2013 (Dana Bayuk to John Edwards), DEQ provided comments on the September 2013 *Revised Groundwater Source Control Extraction System Test Plan*.

In e-mail correspondence dated October 9, 2013 (Pradeep Mugunthan to Dana Bayuk), Anchor QEA, on behalf of NW Natural, transmitted the *Revised Hydraulic Source Control and Containment System Groundwater Model Update Report*, dated October 2013.

Program Management Implementation meetings were conducted with DEQ on October 17, 2013 to discuss the NW Natural program management and project schedules.

In correspondence dated October 15, 2013 (Terry Driscoll to Rob Burkhart), Severson Environmental, on behalf of NW Natural, transmitted the September 2013 Discharge Monitoring Report for the Gasco wastewater treatment facility to DEQ as required under NPDES Permit No. 103061. There was no discharge under this permit during September.

In e-mail correspondence dated October 17, 2013 (John Edwards to Dana Bayuk), Anchor QEA, on behalf of NW Natural, submitted to DEQ the *Revised Groundwater Source Control Extraction System Test Plan, NW Natural Gasco Site*, dated October 2013.

In correspondence dated October 24, 2013 (Taku Fuji to Dana Bayuk), Anchor QEA, on behalf of NW Natural, submitted to DEQ the *Gasco Upland Human Health and Ecological Risk Assessment Report*, dated October 2013.

A meeting with representatives of NW Natural, Siltronic, DEQ, and EPA was conducted on October 21, 2013 to discuss technical items and scheduling as related to upland source control construction and implementation.

A meeting was held with representatives of NW Natural and DEQ on October 29, 2013 in order to introduce and describe key sections, tables, and analyses in the recently submitted Human Health and Ecological Risk Assessment Report.

2.0 Field Work

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 October. The system recovered 11 gallons of fluids, primarily DNAPL, during this time.

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.

- PW-01-80
- PW-2L
- MW-16-45
- MW-18-30
- MW-38U
- WS-14-161

Discharge of treated water 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 October 25, 2013 a total of 8,507,961 gallons of treated water have been discharged to the sanitary sewer in 2013, of which 2,877,083 gallons were treated groundwater from the source control extraction system, with the remainder being treated groundwater from the LNG containment basin.

Construction of the groundwater source control extraction system and wastewater treatment system was substantially completed in September, with activities transitioning to startup testing and shakedown operations related to the HC&C and treatment system. At the completion of the startup testing, DEQ will be provided with a summary memorandum of the primary system components and processes that were tested (provided November 5, 2013).

3.0 Anticipated Activities in November and December 2013

NW Natural and DEQ technical working group communications and meetings are anticipated to occur as needed during November and December 2013 to discuss ongoing project tasks.

Phase 1 testing of the groundwater source control extraction system is scheduled to occur during November as per a schedule provided to DEQ (November 2) and approved in correspondence dated November 5. DNAPL monitoring and removal and applicable performance monitoring activities as described in the *Final Gasco Groundwater Source Control Extraction System Test Plan* will be conducted during November and December timeframes.

Site-wide groundwater level and DNAPL measurements will be conducted by NW Natural at the Gasco and Siltronic properties in November, comprising the fourth quarter 2013 routine groundwater monitoring event.

Preparation of a revised Fill WBZ Investigation Work Plan will continue, with the revised work plan scheduled for submittal to DEQ on November 18, 2013.

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.
- *Final Stormwater Source Control Data Summary Report*, September 2010, Anchor QEA.
- *Remedial Investigation Data Summary Report, Historical Manufactured Gas Plant Activities, Siltronic Corporation Property*, March 31, 2011, HAI.
- *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.
- *Request for Concurrence: Discharge of Groundwater Monitoring Purge Water, NW Natural – Gasco Property*, dated May 24, 2012, HAI, 2012.
- *Supplemental Remedial Investigation Field Sampling Activities, Groundwater Monitoring Well Installations, Siltronic Corporation Property*, dated July 23, 2012, HAI.
- *Memorandum – Wastewater Treatment Plant Construction Excavation Activities*, dated August 16, 2013, HAI.
- *Revised Hydraulic Source Control and Containment System Groundwater Model Update Report*, dated October 2013, Anchor QEA.
- *Gasco Upland Human Health and Ecological Risk Assessment Report*, dated October 2013, Anchor QEA.
- *Summary of Shakedown Operation of Gasco Source Control Hydraulic Containment and Treatment System*, dated November 5, 2013, Anchor QEA.

Should you have any questions, please contact the undersigned.

Sincerely,


Rob Ede, R.G.
Principal

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- c: Ms. Sandra Hart, NW Natural (electronic only)
- Mr. Bob Wyatt, NW Natural (electronic only)
- Ms. Patty Dost, Pearl Legal Group PC (electronic only)
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- 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. 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)