

**HAHN AND ASSOCIATES, INC.**  
ENVIRONMENTAL CONSULTANTS

May 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 April 2013. 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 memoranda dated April 1, 8, 15, and 22 (John Renda to Dana Bayuk), Anchor QEA provided DEQ with weekly updates and field work notifications as related to the Gasco source control construction progress.

In e-mail correspondence dated April 1, 2013 (Ben Hung to Dana Bayuk), Anchor QEA, on behalf of NW Natural, provided DEQ with requested human health (Tables 1-3); ecological (Tables 4-7); and MGP residual observation (Table 8) tables for use in the Gasco risk assessment.

A teleconference with representatives of NW Natural and DEQ was conducted on April 2, 2013 to discuss items related to completion of the human and ecological risk assessment.

In e-mail correspondence dated April 5, 2013 (John Renda to Dana Bayuk) Anchor QEA, on behalf of NW Natural, provided a letter and supporting documentation requesting approval to treat and discharge investigation-derived water generated within the trichloroethene (TCE) contaminated media management area (CMMA) to the City of Portland sanitary sewer, as allowed by the existing POTW permit. In correspondence dated April 9, 2013 (Dana Bayuk to Bob Wyatt), DEQ provided approval of NW Natural's April 5, 2013 request to discharge the IDW to the POTW.

In correspondence dated April 9, 2013 (Tim Stone to Hank Stanley), Anchor QEA provided characterization data to Terra Hydr, Inc. in preparation for disposal of non-hazardous investigation-derived soils generated during installation of PW-, MW-, and OW-series wells by NW Natural at the Gasco and Siltronic properties.

In e-mail correspondence dated April 10, 2013 (Ben Hung to Dana Bayuk), Anchor QEA, on behalf of NW Natural, provided DEQ with requested human health (Tables 9-14) and ecological (Tables 15-17) tables for use in the Gasco risk assessment.

A meeting with representatives of NW Natural, Siltronic, DEQ, and EPA was conducted on April 15, 2013 to discuss technical items and scheduling as related to upland source control construction and implementation.

In e-mail correspondence dated April 15, 2013 (Dana Bayuk to John Edwards), DEQ provided comments generated during review of the Anchor QEA document, *NW Natural Gasco Site Groundwater Model Update Plan*, dated February 15, 2013.

DEQ provided notice on April 18, 2013 that the proposed NPDES permit for discharge of treated groundwater for the NW Natural Gasco site had formally been put out for public review.

A teleconference with representatives of NW Natural and DEQ was conducted on April 18, 2013 to discuss DEQ questions related to the HERA screening criteria tables. In addition, several emails and conference calls between NW Natural/Anchor QEA and DEQ occurred in mid-to-late April related to technical and process items for moving forward with the uplands risk assessment.

Program Management Implementation conference calls were conducted on April 4 and April 18, 2013 to discuss the NW Natural program management and project schedules.

In correspondence dated April 23, 2013 (Martin Folan to Mark Krening), Severson Environmental Services, Inc. provided characterization data to Waste Management, Inc. in preparation for disposal of non-hazardous soils generated during installation of fencing and power poles at the Gasco property.

In email correspondence dated April 23, 2013 (Taku Fuji to Dana Bayuk), Anchor QEA, on behalf of NW Natural, provided DEQ with requested information regarding the site-specific TPH RBCs, including full analytical results from the composite samples collected during the TPH Fraction Data Gap Field Effort, as well as five TPH RBC calculation workbooks.

In email correspondence dated April 23, 2013 (Dana Bayuk to John Edwards), DEQ provided comments on the *NW Natural Gasco Site – Uncertainty Evaluation for Control Wells of the Hydraulic Control and Containment System*, dated February 15, 2013.

In email correspondence dated April 24, 2013 (Taku Fuji to Dana Bayuk), Anchor QEA, on behalf of NW Natural, provided DEQ with the requested updated Gasco RBC Calculation Spreadsheet and functional versions of the HERA screening criteria and MGP observations tables in working Excel spreadsheets.

## 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 14 gallons of fluids, primarily DNAPL, during this time. Approximately 1.5 gallons of DNAPL were 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 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 April 30, 2013 a total of 3,132,649 gallons of treated water have been discharged to the sanitary sewer in 2013.

Construction of the groundwater source control extraction system and wastewater treatment system continued during April. A summary of the source control construction work completed each week and the work anticipated over the next two-week period is provided in weekly memoranda to DEQ.

### **3.0 Anticipated Activities in May and June 2013**

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

Construction related activities associated with the groundwater source control system will be conducted during this timeframe, with wastewater treatment plant construction and installation of the alluvium water-bearing zone extraction system pipeline and controls continuing through the second quarter of 2013.

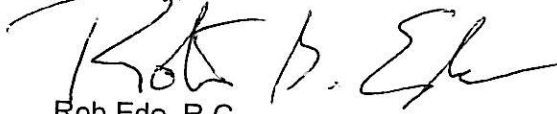
The following reports and work plans for the Site have been submitted to DEQ through the date of this progress report. Unless otherwise noted, NW Natural has not received DEQ comments on these documents.

- *Source Control Evaluation Report, "Segment 3" Siltronic Property Related to NW Natural "Gasco" Site*, February 19, 2009, Anchor QEA. Based on DEQ feedback, DEQ review of this document is prioritized behind Segment 1 and 2 source control 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.
- *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).
- *Supplemental Remedial Investigation Field Sampling Activities, Groundwater Monitoring Well Installations, Siltronic Corporation Property*, dated July 23, 2012 (HAI, 2012).
- Tables providing *Human Health Screening Levels* (Tables 1-3) and *Ecological Screening Levels* (Tables 4-7), inclusive of *MGP Observations without Associated Data* (Table 8). Provided via April 1, 2013 e-mail (Anchor QEA, 2013).

- Tables providing *Gasco Risk Assessment – Human Health Soil Data by Scenario and Exposure Area* (Tables 9-14); and *Ecological Soil Data by Scenario and Exposure Area* (Tables 15-17). Provided via April 10, 2013 e-mail (Anchor QEA, 2013).

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)
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  - Mr. Rene Fuentes, Region 10 EPA (electronic only)
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  - Mr. Lance Peterson, CDM, Inc. (electronic only)