

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

October 15, 2014

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 Site, 7900 NW St. Helens Avenue and  
7200 NW Front 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 relating to historic manufactured gas plant (MGP) activities at the NW Natural Site during the month of September 2014. NW Natural is completing upland investigatory activities at the NW Natural Site 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 September 3, 2014 (Dana Bayuk to Paul Krebsbach and William Byrd), DEQ requested additional information related to an August 27, 2014 disposal package for disposal of "Siltronic maintenance soil".

In correspondence dated September 3, 2014 (Ben Hung to Dana Bayuk), NW Natural provided technical observations to DEQ related to incorporation of DEQ's estimated soil TPH concentrations and associated hazard quotients into the revised *Gasco Site Uplands Human Health and Ecological Risk Assessment (HERA) Report*. The correspondence also identified areas of feedback that NW Natural still needs from DEQ in order to finalize the HERA Report.

A program management implementation call was conducted with DEQ on September 4, 2014 to discuss NW Natural program management and project schedules.

In correspondence dated September 4, 2014 (Dana Bayuk to Bob Wyatt), DEQ provided comments related to review of June 13, 2014 and July 21, 2014 requests to manage dense non-aqueous phase liquids (DNAPLs) and treatment system residuals.

In correspondence dated September 5, 2014 (Dana Bayuk to William Byrd), DEQ supplemented its September 3, 2014 request for additional information related to an August 27, 2014 disposal package for disposal of "Siltronic maintenance soil".

In correspondence dated September 5, 2014 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, provided DEQ with a proposal for incorporating TPH data collection (as directed by DEQ) into the integrated groundwater monitoring program for the third quarter of 2014.

In correspondence dated September 9, 2014 (John Renda to Dana Bayuk), Anchor QEA, on behalf of NW Natural, electronically submitted the *Gasco Groundwater Source*

*Control Extraction System Test - Phase 1 Step 5 Data Report* to DEQ. Hard copies of the report were provided to DEQ in correspondence dated September 15, 2014 (John Edwards to Dana Bayuk).

In correspondence dated September 12, 2014 (John Renda to Dana Bayuk), Anchor QEA, on behalf of NW Natural, submitted the *Final Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) for the Fill Water-Bearing Zone* to DEQ. Hard copies of the report were provided to DEQ in correspondence dated September 19, 2014 (John Edwards to Dana Bayuk).

A teleconference with representatives of DEQ, NW Natural, and Siltronic was conducted on September 15, 2014 to discuss various elements of the ongoing and planned hydraulic control and containment (HC&C) testing and enhancement activities.

In correspondence dated September 15, 2014 (William Byrd to Dana Bayuk), Severson Environmental Services, Inc. (SES) provided information regarding the August 27, 2014 soil disposal package as requested by DEQ in correspondence dated September 3 and 5, 2014.

In correspondence dated September 18, 2014 (Dana Bayuk to Pradeep Mugunthan), DEQ provided approval of the *Revised Final Hydraulic Source Control and Containment System Groundwater Model Update Report – NW Natural Gasco Site*, dated August 2014.

In correspondence dated September 22, 2014 (Dana Bayuk to William Byrd), DEQ acknowledged receipt of supplemental information DEQ requested related to the August 27, 2014 soil disposal package and confirmed that soils were managed in accordance with approved protocols for media generated within the TCE CMMA.

In correspondence dated September 29, 2014 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, provided DEQ with a revised plan for the third quarter 2014 groundwater monitoring program. The program was revised consistent with discussion that occurred during a September 24, 2014 call with DEQ. DEQ subsequently provided verbal approval of the revised monitoring program during a September 29, 2014 call (Dana Bayuk to Rob Ede).

In correspondence dated September 30, 2014 (Dana Bayuk to Taku Fuji and Ben Hung), DEQ provided updated estimated soil TPH concentrations and associated hazard quotients for incorporation into the revised Gasco Uplands HERA Report.

In correspondence dated September 30, 2014 (John Renda to Dana Bayuk), Anchor QEA, on behalf of NW Natural, provided DEQ with a schedule depicting the sequencing of the Distributed Temperature Sensing (DTS) testing, Phase 1 Step 6 HC&C testing, and the current groundwater monitoring event scheduled for completion in October.

## **2.0 Field Work**

A site tour with representatives of NW Natural, Siltronic, and DEQ was conducted on September 5, 2014.

Installation and development activities related to two additional Segment 2 upper alluvium extraction wells (PW-15U and PW-16U) were completed by mid-September 2014.

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 September. The system recovered approximately 6 gallons of fluids, primarily DNAPL, during this time. The above ground storage tank (AST) reached capacity during September and will remain off until the contents can be removed and transported off-site for re-refining, which is scheduled to occur in October 2014 (completed October 13, 2014).

Tasks related to optimization of the hydraulic control and containment (HC&C) system and the wastewater treatment system (continued operation and testing) were conducted in September 2014. Winterization of the HC&C system piping and fixtures was conducted during September 2014.

Baseline DNAPL removal as needed to maintain at levels below the top of the well sumps was conducted by Anchor QEA during September 2014 in the following wells near the river shoreline.

- MW-18-30
- MW-26U
- MW-27U
- MW-38U
- MW-PW-2L
- PW-2L
- WS-14-161

On March 31, 2014 NW Natural discontinued discharges of treated groundwater to the sanitary sewer (Industrial Wastewater Discharge Permit 500.022). All water is now directed to NW Natural's on-site wastewater treatment plant and discharged to the Willamette River consistent with National Pollutant Discharge Elimination System (NPDES) Permit No. 103061 (expires August 31, 2018). Results from NW Natural's NPDES effluent sampling are provided to DEQ in Discharge Monitoring Reports that are submitted on a monthly basis in accordance with the permit. As of September 30, 2014 a total of 70,975,840 gallons of treated water were discharged under the NPDES permit.

### **3.0 Anticipated Activities October and November 2014**

NW Natural and DEQ technical working group communications and meetings are anticipated to occur as needed during October and November 2014 to discuss ongoing project tasks, including DEQ-requested revisions to the Gasco HERA document.

Distributed Temperature Sensing (DTS) testing will be completed adjacent to a portion of shoreline at the Gasco site during the first week of October (complete as of October 13, 2014).

Groundwater sampling activities as described in September 29, 2014 correspondence (Rob Ede to Dana Bayuk) will be completed in October 2014 (initiated October 1, 2014).

Phase 1 Step 6 HC&C testing will be completed during the second week of October (initiated on October 13, 2014).

Initiation of supplemental Doane Creek investigation activities remains contingent upon receipt of DEQ confirmation that the analyte list and screening levels are suitable for the Siltronic MGP Human Health and Ecological Risk Assessment. Legal access

agreements with the off-site property owner (Burlington Northern Railroad) will also be necessary prior to initiation of field activities.

Transport and recycling of the oil-water mixture originating from the TCE CMMA of the NW Natural Gasco Site will be scheduled following further discussion with DEQ. DEQ provided feedback regarding this item in a letter dated September 4, 2014. NW Natural is developing an approach to address DEQ's comments.

A meeting with DEQ, NW Natural, and Siltronic will occur during October (conducted October 8, 2014) to discuss the status of upland project work being conducted on the Gasco and Siltronic properties.

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.

- NW Natural's June 5, 2014 request (Rob Ede to Dana Bayuk) requesting concurrence of a final proposed analyte list and screening levels for use in the Doane Creek-related FSP being conducted as part of the Siltronic property RI.
- Request for concurrence for transport and recycling of oil-water mixtures originating from the Trichloroethene Contaminated Media Management Area (TCE CMMA) of the NW Natural Gasco Site (Tim Stone to Dana Bayuk), dated June 13, 2014. As noted above, DEQ provided feedback regarding this item in a letter dated September 4, 2014.
- *Waste Determination for Filter Press Cake and Bag Filter Solids Generated at the Gasco Wastewater Treatment Plant*, transmitted by ADA (Terry Driscoll to Dana Bayuk), dated July 21, 2014. Discussions with DEQ regarding this item have been ongoing. DEQ also provided feedback regarding this item in a letter dated September 4, 2014. NW Natural provided the additional information requested by DEQ in the September 4, 2014 letter on October 3, 2014 in an email transmittal (William Byrd to Dana Bayuk).
- *Response to DEQ Request for Supplemental Information on Location of Former Industrial Use Supply Well, Mult 802, NW Natural Gasco Property*, transmitted by HAI (Rob Ede to Dana Bayuk), dated August 13, 2014.
- *Gasco Groundwater Source Control Extraction System Phase 1 Step 5 Test Data Report*, transmitted by Anchor QEA on September 9, 2014 (John Renda to Dana Bayuk).
- *Final Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) for the Fill Water-Bearing Zone* to DEQ, transmitted by Anchor QEA on September 12, 2014 (John Renda to Dana Bayuk).

Should you have any questions, please contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "Rob Ede, R.G.", with a large, sweeping flourish at the end.

Rob Ede, R.G.  
Principal

robe@hahnenv.com

- c: 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. Keith Johnson, DEQ NW Region (electronic only)
- Mr. Myron Burr, 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. Lance Peterson, CDM, Inc. (electronic only)