

April 16, 2008

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 March 2008. NW Natural is completing upland investigatory activities at the subject property under the Voluntary Agreement No. ECVC-WMCVC-NWR-94-13 between NW Natural and the Oregon Department of Environmental Quality (DEQ).

1.0 Communications and Document Submittals

In e-mail correspondence dated March 3, 2008 (Rob Ede to Dana Bayuk), HAI provided DEQ with a description of the revised schedule for implementation of the second phase of the TarGOST / Cone Penetrometer (CPT) work that DEQ requested for the Gasco and Siltronic properties.

The *Investigation-Derived Waste (IDW) Management Plan, Remedial Investigation, Historical Manufactured Gas Plant Activities, Siltronic Corporation Property* was submitted to DEQ for review on March 5, 2008 (Rob Ede to Dana Bayuk). The document was prepared to facilitate appropriate management of soil and liquid wastes generated during RI activities to be implemented by NW Natural at the Siltronic property.

In correspondence dated March 19, 2008 (Rob Ede to Dana Bayuk), HAI provided the DEQ with a description of TarGOST activities to be conducted at the Gasco and Siltronic properties in March, including a summary of agreed upon locations and methods for this work.

DEQ comments from review of NW Natural's *Groundwater/DNAPL Source Control Focused Feasibility Study* (Anchor, October 2007) were received by NW Natural in correspondence dated March 21, 2008 (Dana Bayuk to Bob Wyatt). In this correspondence DEQ provided conditional approval of the NW Natural proposed Groundwater/DNAPL FFS for Shoreline Segments 1 and 2 (entire shoreline of Gasco and northern shoreline of adjacent Siltronic property).

In correspondence dated March 21, 2008 (Carl Stivers to Dana Bayuk), Anchor provided a summary of the cyanide analytical testing methods historically used for evaluation of soil and water samples as part of investigation activities related to the Gasco property.

A NW Natural/DEQ progress status meeting established primarily to discuss technical issues as related to the *Groundwater Focused Feasibility Study (GWFFS)* as well as anticipated coordination issues with groundwater and DNAPL source control implementation, occurred March 24, 2008. The primary topic of this meeting was a discussion of cyanide forms and alternative testing methods, especially with regard to treatability testing of extracted groundwater.

In correspondence dated March 26, 2008 (Carl Stivers to Dana Bayuk), Anchor provided a description of the proposed path forward for evaluation and use of new cyanide methods with regard to groundwater treatability testing.

In e-mail correspondence dated March 27, 2008 (Dana Bayuk to Bob Wyatt), DEQ provided approval of the TarGOST investigation schedule and boring locations as were described in March 19, 2008 HAI correspondence.

In correspondence dated March 27, 2008 (Dana Bayuk to Bob Wyatt), DEQ provided partial approval / comments from review of the March 5, 2008 IDW Management Plan for the Siltronic property. DEQ requested a revision and approval of the IDW Management plan prior to off-site disposal or treatment of water generated from the spent TCE Contaminated Media Management Area.

In correspondence dated March 31, 2008 (Rob Ede to Dana Bayuk), HAI provided the proposed 2008 groundwater monitoring program to DEQ for review and approval.

2.0 Field Work

Field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at the surficial fill MW-6-32 well location occurred during March. Approximately 66 gallons of liquids (primarily DNAPL) were recovered in February. Approximately 1,415 gallons of liquids (ranging from an estimated 40 to 80% DNAPL) have been recovered at this location since pumping began in August of 2000.

In response to the identification of DNAPL within the surficial fill at the MW-13-31 well location, NW Natural discussed and received concurrence from DEQ in a telephone conversation (Ede to Bayuk, July 19, 2007) for initiation of a DNAPL removal program at this location – with manual removal beginning in early August (commenced August 6, 2007). During March, approximately 1 gallon of DNAPL was removed from this well location – with approximately 7 feet of DNAPL present at the base of the well. As of the end of March, approximately 37.5 gallons of DNAPL have been manually removed from MW-13-31 over the course of 20 removal events.

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 September 15, 2009). Bi-monthly effluent sampling was conducted on March 20 2008. Results of NW Natural's effluent sampling are provided to BES in bi-monthly Discharge Monitoring Reports. As of March 20, 2008, a

total of 7,724,400 gallons of treated water have been discharged to the sanitary sewer since initiation of the permit.

As determined necessary by DEQ, a second phase of TarGOST DNAPL investigation activities at the Gasco and Siltronic properties were conducted between the dates of March 25 and March 31, 2008. The findings from this additional TarGOST investigation, in combination with the 2007 TarGOST data and the DNAPL findings presented in the Gasco Remedial Investigation Report (HAI, 2007); provide a comprehensive delineation of DNAPL at the Gasco and Siltronic properties adequate for support of the design of groundwater/DNAPL source control.

Ongoing visual sheen monitoring, consistent with a DEQ-approved monitoring plan, of the boom / sheen containment area immediately offshore of the Gasco/Siltronic property boundary were conducted throughout March.

3.0 Anticipated Activities in April and May 2008

Initiation of activities as included within the November 30, 2007 *Source Control Data Gaps Work Plan, Section 2, Catch Basin Sediment and Stormwater Sample Collection, Processing, and Analysis Procedures* is anticipated to occur during the specified timeframe.

A revised IDW Management plan for RI activities at the Siltronic property will be submitted to DEQ for review in April - prior to off-site disposal or treatment of water generated from the spent TCE Contaminated Media Management Area.

In April Anchor will submit the monthly report of visual sheen monitoring (submitted April 9, Tim Stone to Dana Bayuk).

A groundwater monitoring event to include Segment 1 and 2 monitoring wells will be completed during the specified timeframe with approval of the monitoring plan to be received from DEQ prior to initiating the sampling activities.

Remedial Investigation activities to be conducted by NW Natural at the Siltronic property commenced in late March with the Phase 2 TarGOST activities identified above, and will continue into April with shallow (push probe) soil sampling (commenced April 14, 2008) and deep (roto-sonic) borehole advancement, well installation, Doane Creek-related sampling, and geophysical pilot investigation activities anticipated to continue through June 2008.

A draft outline of the Gasco upland FS report will be submitted to DEQ for review in April (submitted April 14, Carl Stivers to Dana Bayuk). A meeting with DEQ to discuss the outline is anticipated for May, but not yet scheduled.

The following activities in support of groundwater source control are anticipated to be in progress.

- Bench scale groundwater treatability testing is anticipated to begin in April or May, subject to DEQ approval of cyanide testing methods. A memo containing

NW Natural's recommendation for cyanide testing methods will be submitted to DEQ for review in April.

- The vibration study plan is being developed and is expected to be submitted to Siltronic for review in April and to DEQ for review in late April or May.
- The Groundwater Focused Feasibility Study Appendix E Pump Test and ModFlow Model report is being revised and an addendum to the report is being prepared in response to DEQ comments in their March 21 letter. These documents are anticipated to be provided to DEQ in late April or early May.

Should you have any questions, please contact the undersigned.

Sincerely,

Rob Ede, R.G.
Sr. Associate

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c: Ms. Sandra Hart, NW Natural
Mr. Bob Wyatt, NW Natural
Ms. Patty Dost, Schwabe, Williamson & Wyatt
Mr. Carl Stivers, Anchor Environmental, L.L.C.
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