

September 11, 2009

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 2009. 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 correspondence dated August 4, 2009 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, provided plans and a schematic depiction for the proposed plumbing and operation of an automated DNAPL recovery system at the MW-13-31 (surficial fill) location.

In correspondence dated August 7, 2009 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, provided additional data, as requested by DEQ in correspondence dated April 2, 2009 (Dana Bayuk to Bob Wyatt), related to the request for concurrence regarding intended disposal of soil cuttings generated during the installation of the NWN-series wells by NW Natural at the adjacent Siltronic Corporation (Siltronic) property.

In correspondence dated August 14, 2009 (Joy Dunay and Amy Nelson to Dana Bayuk), Anchor QEA, at the request of DEQ, provided a description of, and conclusions from, an assessment of potential low biases potentially attributed to available cyanide method OIA-1677. DEQ had requested this evaluation in correspondence dated July 15, 2009 (Dana Bayuk to Bob Wyatt). As described in the Anchor QEA evaluation, it was concluded that there was no indication that the method produced biases outside of normal laboratory quality control issues and that the OIA-1677 methodology is sufficiently accurate and reliable for use in monitoring the cyanide pilot treatment system.

In correspondence dated August 17, 2009 (Dana Bayuk to Rob Ede), the DEQ provided a request for additional information based on their review of NW Natural's August 4,

2009 plans for incorporation of automated DNAPL recovery at the Gasco MW-13-30 well location.

In correspondence dated August 20, 2009 (Dana Bayuk to Bob Wyatt), the DEQ provided NW Natural with an agenda for an upcoming (August 26, 2009) technical meeting to discuss issues related to the Source Control Interim Design.

In correspondence dated August 20, 2009 (Terry Driscoll to Dana Bayuk), Severson Environmental Services, Inc., on behalf of NW Natural, provided notification to DEQ of the successful completion of the wastewater pilot treatment plant testing, with planned cessation of the pilot treatment to occur on August 27, 2009.

Representatives of NW Natural and DEQ met on August 26, 2009, with the focus of the meeting being discussion of NW Natural's July 31, 2009 memorandum describing key issues related to the Source Control Interim Design as described by NW Natural at a July 20, 2009 meeting with DEQ.

In correspondence dated August 26, 2009 (Dana Bayuk to Bob Wyatt), DEQ provided concurrence with NW Natural's August 7, 2009 characterization and plans to dispose of soil investigation-derived wastes generated from installation of the Siltronic property NWN-series monitoring wells.

2.0 □ Field Work

Severson Environmental Services and Anchor QEA operated the pilot groundwater treatment system during August, with plant operations concluding in late August followed by plant dismantling and decontamination in late August/early September.

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 August. Approximately 48 gallons of DNAPL / water was pumped from well MW-6-32 during August. Based on visual observations during select pumping cycles, it is estimated that between approximately 25 to 60% of the liquid pumped in August was DNAPL.

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, 2012). Results of 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 every other month in accordance with the permit. As of September 2, 2009, a total of 5,836,888 gallons of treated water have been discharged to the sanitary sewer in 2009. Treated effluent from the pilot treatment plant is also being discharged to the POTW.

The third quarter 2009 groundwater monitoring event was initiated on the Gasco and Siltronic properties on August 5, 2009 (groundwater elevations) and on August 11, 2009 (well sampling) with groundwater monitoring activities on both properties completed by August 19, 2009. Efforts to access RP-series wells located at the Siltronic property during the third quarter as described in the RI Workplan, were conducted but access was not received during the August timeframe.

Remedial Investigation activities conducted by NW Natural at the Siltronic property during August include completion of the remaining push probe drilling that could not be completed earlier due to access limitations (location P-33 and P-45). The specified boring installations with soil and groundwater sampling were completed on August 10, 2009.

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 during August.

3.0 Anticipated Activities in September and October 2009

Meetings with NW Natural and DEQ will occur through September and October 2009 as needed to expedite discussions and resolution of issues concerning design of groundwater/DNAPL source control, as well as other project related items such as upland risk assessment and feasibility study activities.

NW Natural and Koppers are working on an agreement to secure access to the Koppers Leasehold portion of the Gasco property for the purpose of stormwater sampling as per the November 30, 2007 *Source Control Data Gaps Work Plan, Section 2, Catch Basin Sediment and Stormwater Sample Collection, Processing, and Analysis Procedures*. NW Natural will schedule stormwater sampling for the remainder of the property after receipt of approval from DEQ on the October 23, 2008 *Draft Source Control Data Gaps Catch Basin Sediment Sampling Report*.

An Environmental Monitoring Report, to include groundwater elevation maps, DNAPL thickness measurements, and final laboratory data and validation reports for the third and fourth quarters of 2008 will be submitted to DEQ (submitted September 1, 2009).

Remedial Investigation activities anticipated to be conducted by NW Natural at the Siltronic property include the initiation of Doane Creek sampling-related activities with the assumption that access from BNSF is received and executed during this time-frame (received September 2, 2009).

A work plan describing the proposed abandonment of wells MW-13-61R and MW-16-125 is anticipated to be provided to DEQ for review during this timeframe.

Efforts to access RP-series wells located at the Siltronic property for sampling as described in the RI Workplan, will continue in September and October 2009.

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

- Anchor QEA is preparing the source control Interim Design Report. NW Natural is planning to meet with DEQ on September 15, 2009 to further discuss the planning and design of a vertical barrier, as well as groundwater treatment system discharge limitations, monitoring parameters, and permitting issues.
- Evaluation of findings from the pilot groundwater treatment system testing as completed at the end of August, will occur during September.

The following reports and work plans on the Site have been submitted to DEQ for review and comment.

- Revised Baseline Ecological and Human Health Risk Assessment Report, December 2004, Anchor Environmental, LLC.
- Remedial Investigation Report, NW Natural – Gasco Facility, 7900 NW St. Helens Road, Portland, Oregon, April 30, 2007, Hahn and Associates, Inc.
- Draft Source Control Data Gaps Catch Basin Sediment Sampling Report, October 23, 2008 Anchor Environmental, LLC.
- Source Control Evaluation Report, "Segment 3" Siltronic Property Related to NW Natural "Gasco" Site, February 19, 2009, Anchor QEA.
- Evaluation of potential method produced biases associated with available cyanide method OIA-1677, August 14, 2009, Anchor QEA.
- Supplemental Information, Automated DNAPL Recovery, Incorporation of Well MW-13-30 to Current System, NW Natural Facility, September 8, 2009, Hahn and Associates, Inc.

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
Mr. Bob Wyatt, NW Natural
Ms. Patty Dost, Pearl Legal Group PC (electronic only)
Mr. Carl Stivers, Anchor Environmental, L.L.C.
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Mr. Henning Larsen, DEQ NW Region
Mr. Tom Gainer, DEQ NW Region (electronic only)
Mr. Tom McCue, Siltronic Corporation
Ms. Kristine Koch, Region 10 EPA (electronic only)
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