

January 15, 2010

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 December 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

A meeting was held with representatives of NW Natural, U.S. Moorings, and DEQ on December 7, 2009 to discuss the status of investigation activities conducted by U.S. Moorings on their property immediately north of the Gasco Site, as well as an update on activities at the Gasco property.

In correspondence dated December 14, 2009 (Tim Stone to Dana Bayuk), Anchor QEA, on behalf of NW Natural, requested clarification from DEQ regarding use of contained-in determination threshold levels for investigation-derived waste (IDW) generated at the Gasco site.

A meeting was held with DEQ on December 15 to discuss the submitted *Source Control Interim Design Report* and additional deliverables requested by DEQ to assist in the completion of their review of this document. Implementation of the uplands related work in the *Segment 2 Capture Zone Test Plan* was also discussed.

In correspondence dated December 18, 2009 (Tim Stone to Dana Bayuk), Anchor QEA, on behalf of NW Natural, provided the *Visual Offshore Sheen Report* documenting observed conditions offshore of the up-river portion of the Gasco property for the Third Quarter 2009.

In correspondence dated December 29, 2009 (Dana Bayuk to Bob Wyatt), the DEQ provided concurrence with a November 18, 2009 IDW disposal determination in which NW Natural concluded that analytical testing of containerized water generated within the

F002 CMMA indicate it to be non-hazardous and suitable for GAC treatment and discharge to the City's sanitary system.

On December 30, 2009 Anchor QEA, on behalf of NW Natural, submitted to DEQ (via ftp upload) correspondence dated December 28, 2009 (Mike Riley to John Edwards) providing DEQ-requested supporting information on groundwater modeling related to the *Groundwater Source Control Interim Design Report*.

2.0 □ Field Work

Field activities related to the incorporation of automated DNAPL recovery at the MW-6-32 and the MW-13-30 well locations occurred in December 2009. System adjustments with regard to the new solar array, battery hook-up, and the controller settings were conducted during the December timeframe to evaluate and optimize DNAPL recovery through varying the cycle number and duration for each well location. During December, approximately 42 gallons of DNAPL / water was pumped from wells MW-6-32 and MW-13-30 (combined). Based on visual observations during select pumping cycles, it is estimated that approximately 90% of the liquid pumped in December from MW-13-30 was DNAPL, while approximately 30% to 50% of the liquid pumped from MW-6-32 was DNAPL. System optimization is on-going.

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 December 29, 2009, a total of 7,790,707 gallons of treated water have been discharged to the sanitary sewer in 2009.

Reconnaissance of the Doane Creek drainage on the BNSF property adjacent to Siltronic was conducted by representatives of HAI on December 4 in order to begin logistical planning for sampling within that drainage as per the RI Work Plan.

The offshore piezometers were installed and developed consistent with the EPA-approved *Capture Zone Field Test Plan*.

Site-wide groundwater elevation and DNAPL presence / thickness measurements for the fourth quarter 2009 were collected at all well locations on December 4, 2009.

On December 18, 2009, Anchor QEA coordinated the down-pipe video and locating of the line leading from the single existing catch basin in the Koppers Leasehold area that does not reportedly drain to the Koppers stormwater tankfarm for discharge to the City of Portland sanitary sewer system. This line was found to go 31 feet to the north where it dead ends against a section of concrete.

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 December.

3.0 Anticipated Activities in January and February 2010

Regularly scheduled monthly meetings with NW Natural and DEQ will occur through the indicated time-frame to discuss issues concerning design of groundwater/DNAPL source control, as well as other project related items such as upland risk assessment and feasibility study activities.

Efforts will be made during the indicated timeframe to resolve the discharge location of the single existing catch basin in the Koppers Leasehold area that does not reportedly drain to the Koppers stormwater tankfarm for discharge to the City of Portland sanitary sewer system.

An Environmental Monitoring Report, to include groundwater elevation maps, DNAPL thickness measurements, and final laboratory data and validation reports for the first and second quarters of 2009 is anticipated to be available for submittal to DEQ during January.

A letter confirming the routine groundwater monitoring schedule for the Gasco and Siltronic Site during 2010 will be provided to DEQ during January.

Installation of the offshore piezometers for the Segment 2 Capture Zone test was completed in December and we have been waiting to install upland extraction wells PW-7, 8, and 9 and monitoring wells until we have EPA approval of the well design in the Capture Zone Field Test plan. EPA submitted a January 7 letter to NW Natural that gives approval to commence the test plan, conditional to EPA approval of NW Natural response to the EPA letter. DEQ submitted a January 11 letter commenting on the plan. NW Natural is preparing responses to these letters and plans to submit the responses the week of January 18. NW Natural hopes to have all of the issues in agreement in time to start installation of the upland wells by the last week of January, or first week in February.

Sevenson Environmental Services (SES) is preparing the groundwater treatment system Pilot Study Report and intends to submit the report to DEQ in January.

Remedial Investigation activities anticipated to be conducted by NW Natural at the Siltronic property during the specified timeframe include the initiation of Doane Creek soil and sediment sampling activities will occur during the referenced time-frame.

Those RP-series wells located at the Siltronic property that have not yet been sampled for RI-related COIs are anticipated to be sampled in February 2010 as part of the overall First Quarter 2010 site-wide monitoring event.

Adjustments to the cycle frequency and duration for both the MW-13-30 and the MW-6-32 DNAPL recovery locations will continue through January and February, as necessary to optimize the DNAPL recovery rates with the new compressor and controller system.

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.
- 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.
- Proposed Revision to Environmental Controls and Sheen Monitoring at the Gasco/Siltronic Property Boundary, October 5, 2009, Anchor QEA
- Interim Design Report for Source Control, November 6, 2009, Anchor QEA
- Plan for Monitoring Well Abandonment and Replacement (MW-13-61R and MW-16-125), November 17, 2009, HAI

Should you have any questions, please contact the undersigned.

Sincerely,



Rob Ede, R.G.
Principal

robe@hahnenv.com

- c: Ms. Sandra Hart, NW Natural
Mr. Bob Wyatt, NW Natural
Ms. Patty Dost, Pearl Legal Group PC (electronic only)
Mr. Carl Stivers, Anchor QEA, L.L.C.
Mr. John Edwards, Anchor QEA, L.L.C.
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)
Mr. Sean Sheldrake, Region 10 EPA (electronic only)
Mr. Rene Fuentes, Region 10 EPA (electronic only)
Mr. Eric Blischke, Region 10 EPA (electronic only)
Mr. Chip Humphrey, Region 10 EPA (electronic only)
Mr. Lance Peterson, CDM, Inc. (electronic only)