

Atlantic Richfield Company

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April 9, 2012

CERTIFIED – RETURN RECEIPT REQUESTED

Ms. Jere Johnson
Remedial Project Manager
U.S. Environmental Protection Agency Region 9
75 Hawthorne Street, SFD-9-1
San Francisco, CA 94105

Subject: March 2012 Monthly Report, Yerington Mine Site, Lyon County, Nevada: Administrative Order for Remedial Investigation and Feasibility Study (RI/FS), CERCLA Docket No. 9-2007-0005; Administrative Order on Consent, CERCLA Docket No. 09-2009-0010

Dear Ms. Johnson:

Pursuant to the above referenced orders issued by the U.S. Environmental Protection Agency - Region 9 (EPA), Atlantic Richfield Company (ARC) has prepared this March 2012 monthly report for RI/FS and Operations and Maintenance (O&M) activities at the Yerington Mine Site (Site).

March 2012 Activities

Site Security and O&M Activities

- Continued routine Site O&M, security and bird deterrent activities. Security cameras at various locations (e.g., Main and Arimetco gates, entrances to buildings) indicated no activity of concern.
- “Wind Dancers” were operated at the Slot Pond, the Pumpback Well System (PWS) Pond, and the Lined Evaporation Pond. Propane cannons were operated at the Arimetco Fluid Management System (FMS) ponds (with the exception of the VLT Pond, as directed by EPA). Locations of “Wind Dancers” and bird deterrent flags were rotated every two weeks, or as field observations dictated, to lessen the possibility of birds becoming habituated to these deterrents. The bird guard towers remained active due to water in the PWS Pond. Start/stop times on all cannons continued to be adjusted to reflect changing timing of sunrise and sunset.
- Water levels in PWS Evaporation Pond cells: North Cell = 0.0 feet; Middle Cell = 1.2 feet; South Cell = 2.9 feet (water in the two cells primarily resulted from the November 2011 aquifer test).
- Arimetco FMS pond levels: Phase 1 Pond = 3.68 feet; FMS Evaporation Pond = 8.20 feet; VLT Pond = 8.49 feet; Slot 2 Pond = 14.46 feet. Two fluid transfers occurred from the VLT Pond to the FMS Evaporation Pond, totaling 126,865 gallons. One fluid transfer occurred from the Slot Pond to the FMS Evaporation Pond, totaling 23,843 gallons. Leak detectors were monitored throughout the Site. A total of 35,863 gallons of solution were pumped from the leak detectors in March, bringing the cumulative 2012 total up to 108,237 gallons. VLT Pond leak detection activity was managed by maintaining fluid levels below 8.5 feet. See attached monitoring data.
- A 2-hour test of the Slot Pond pump was successfully performed on March 29 to assess if any mechanical or equipment issues may need to be addressed (as indicated above, 23,843 gallons were transferred to the FMS Evaporation Pond). The flow meters at the pump and the FMS pipeline were in agreement as to how much was pumped, and no leaks were identified.

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March 2012 Activities - Continued

Site Security and O&M Activities - Continued

- A job-walk was conducted on March 8 with EPA, NDEP, Singatse Peak Services (SPS) and ARC representatives to review planned repairs to FMS perimeter collection ditches and the VLT Pond. Notes from the job-walk were submitted to EPA on March 22.

Other Site Activities

- SPS personnel continued to make improvements to structures on the Site.
- B.V. Nevada personnel continued with demolition and salvage activities.
- New compressed gas tank storage racks were installed in a caged area adjacent to the Blue Shop. Appropriate signs were placed, and locks installed to limit access to authorized personnel.

Site Characterization Activities

- Monthly groundwater elevation measurements were obtained March 26-28.
- A pit lake water elevation of 4227.86 feet amsl was recorded on March 28, 2012 from the pressure transducer, an increase of 0.44 feet since February 28, 2012. The pit lake elevation has risen 3.36 feet since March 28, 2011.
- Continued meteorological monitoring at the AM-6 location including wind speed/direction, temperature, relative humidity, barometric pressure, precipitation and solar radiation. Semi-annual calibration of the Site meteorological station.
- One residence (DW-195) was added to the domestic well program (the well was sampled in 1Q 2012 - see below). Signed access agreements from DW-77 (re-sent in February 2012), DW-192 (sent in December 2011), and DW-76 (new owner, sent in March 2012) are pending.
- No residences were added to the Bottled Water Program.
- Continued data compilation for inclusion in the Annual 2011 Groundwater Monitoring Report (GMR). Initiated the compilation of data for the 1Q 2012 GMR.
- The Annual 2011 Domestic Well Monitoring Report (DWMR) was transmitted to EPA on March 9.
- Conducted the 1Q 2012 domestic well monitoring event March 12-15.
- Continued field and laboratory investigations associated with the On-Site Monitor Well Installation Work Plan. The following wells were completed and installed: B/W-56S, B/W-57S, B/W-57I, B/W-57D1, B/W-57D4, B/W-58S, B/W-58I and B/W-58D1. Drilling activities were concluded on March 25. A development rig re-mobilized to the Site on March 20. The following wells were developed: B/W-57S, B/W-57I and B/W-57D1. No zonal samples were collected in March. Slug testing and monitor well surveying continued in March. Dedicated bladder pumps will be installed in the remaining monitor wells once development and slug testing activities have been completed, and prior to the 2Q 2012 monitor well sampling event. Initiated the compilation of field and laboratory data associated with the On-Site Monitor Well Installation program.
- Continued data management and evaluation activities associated with the Aquifer Test Work Plan including: 1) evaluation of hydrograph data for specific aquifer responses; 2) curve-matching to calculate aquifer properties; 3) detailed assessment of anomalous responses that may reflect external influences and/or equipment-related issues; 4) reviewing monthly groundwater level data for incorporation into the test results; and 5) drafting the Aquifer Test Data Summary Report.
- Continued the preparation of draft responses to EPA comments dated February 7, 2012 on the Draft Background Groundwater Quality Assessment document dated September 28, 2011.
- Initiated the compilation of responses to EPA comments dated March 15, 2012 on a technical memorandum dated January 5, 2012 that described publically available information (underground and surface water rights; groundwater elevation data) in an area northeast of the Site.
- Following EPA's review of Hazen Laboratory's set-up and procedures to perform aquifer solids testing, the lab prepared for upcoming test activities.

March 2012 Activities - Continued

Site Characterization Activities - Continued

- Continued to prepare components of the revised Site-Wide Groundwater Operable Unit (OU-1) Remedial Investigation Work Plan including appendices related to calculation of soil-water partition coefficients, surface water data and hydrologic tracer data.
- Submitted a brief Technical Memorandum dated March 15, 2012 to EPA that described Phase 2 Sub-Surface Investigation Results for Select Portions of the Process Areas.
- Continued to compile aerial mapping data into Site and off-Site contour maps and aerial photos.
- Routine database management activities.

Planned April/May 2012 Activities

Site Security and O&M Activities

- Continue routine Site O&M, security and bird deterrent activities.
- Continue to transfer fluids from the VLT Pond to the FMS Evaporation Pond to reduce or eliminate leak detector activity associated with the VLT Pond.
- Continue discussions with EPA, NDEP and SPS regarding FMS repairs.
- Continue to compile information for inclusion in the 2011 Annual FMS O&M Report.
- Pending lab analytical results for the confirmation samples, the excavation associated with the former VLT Transformer will be backfilled, and the impacted soil and concrete slab materials will be shipped off-Site to an approved landfill.
- Submit the Data Summary Report for the VLT Transformer Soils Characterization and Removal Work Plan.

Other Site Activities

- Complete the compilation of aerial survey-based photos and maps.

Site Characterization Activities

- Continue groundwater elevation and pit lake level measurements, and meteorological monitoring.
- Continue the Bottled Water Program.
- Submit preliminary responses to EPA comments, received on November 23, 2011, on the 2010 DSR. Pending discussions with EPA, complete revisions to specific text sections, figures and/or attachments, and submit the revised 2010 DSR.
- Continue data compilation associated with the revised Aquifer Test Work Plan, and submit a Data Summary Report.
- Continue the compilation of data for inclusion in the 2Q 2012 GMR and DWMR.
- Complete the compilation of data for inclusion in the 2011 Annual GMR, and submit the GMR.
- Prepare for, and conduct, the 2Q 2012 groundwater monitoring event.
- Compile aquifer solids test materials for lab testing, starting in June.
- Provide preliminary responses to EPA and YPT comments on the draft BGQA, and discuss the comments with EPA and YPT.
- Provide preliminary responses to EPA comments dated March 15, 2012 on the January 5, 2012 tech memo that described publically available information northeast of the Site.
- Continue the compilation of information for inclusion in the revised Groundwater RI Work Plan.
- Meet with EPA to discuss various aspects of the Site-Wide Groundwater Operable Unit and upcoming deliverables, including the timing and content of the revised RI Work Plan and the inclusion of characterization activities associated with Arimetco facilities.
- When available, review EPA's draft Process Areas (OU-3) RI Work Plan and data quality objectives for the Wabuska Drain (OU-7) RI Work Plan.

Ms. Jere Johnson
Yerington Monthly Report
April 9, 2012
Page 4 of 4

Please contact me at (714) 228-6774 or via e-mail at jack.oman@bp.com if you have any questions or comments about the March 2012 monthly report.

Sincerely,



Jack Oman
Project Manager

Attachments

cc: Dave Seter, EPA – via electronic mail
Roberta Blank, EPA – via electronic mail
Andrew Helmlinger, EPA – via electronic mail
Tom Dunkelman, EPA – via electronic mail
Greg Lovato, NDEP – via electronic mail
Tom Olsen, BLM – via electronic mail
Dan Newell, City of Yerington – via electronic mail
Phyllis Hunewill – via electronic mail
Virgil Arellano, Lyon County Commissioner – via electronic mail
Richard Faber, Lyon County Facilities Engineering – via electronic mail
Tom Grady, Nevada State Assembly – via electronic mail
Jim Sanford, MVEC – via electronic mail
Deborah Dunn, YPT – via electronic mail
Chairwoman Howard, YPT – via electronic mail
Dietrick McGinnis, McGinnis and Associates – via electronic mail
Tom Bowden, Ridolfi, Inc. – via electronic mail
Chairwoman McFalls, WRPT – via electronic mail
Vicky Moyle, WRPT – via electronic mail
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