Atlantic Richfield Company

Jack Oman
Project Manager

4 Centerpointe Drive
LaPalma, CA. 90623-1066
(657) 529-4581 office
(714) 670-5195 fax
jack.oman@bp.com

August 9, 2016

CERTIFIED – RETURN RECEIPT REQUESTED

Mr. Dave Seter
Remedial Project Manager
U.S. Environmental Protection Agency - Region 9
75 Hawthorne Street, SFD-9-1
San Francisco, CA 94105

Subject: **July 2016 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 Mr. Seter:

Pursuant to the above referenced orders issued by the U.S. Environmental Protection Agency - Region 9 (EPA), Atlantic Richfield Company (ARC) has prepared this July 2016 monthly report for RI/FS and Operations and Maintenance (O&M) activities at the Yerington Mine Site (Site).

July 2016 Activities

Site Security and O&M Activities

- Continued Site O&M, security and bird deterrent activities. The two security cameras indicated no activity of concern.
- Wind dancers, bird deterrent flags and Wetland Wailers continued to be deployed in accordance with current EPA-approved bird deterrent protocols. To reduce birds from becoming habituated to the presence of wind dancers and flags, these devices were relocated as needed (Wind Dancers on the Evaporation Ponds were shut down during the drilling program).
- Bird Gard towers 'A', 'B' and 'C' were not in operation throughout July due to dry Site conditions.
- Continued the EPA-approved bird deterrent schedule with at least two monitoring visits per day at all ponds. Observations were made within half an hour of dawn and dusk.
- PWS Pond water levels: North Cell = 0.0 feet; Middle Cell = 0.0 feet; South Cell = 0.0 feet.
- As of July 31, the Arimetco FMS pond levels were: Phase 1 Pond = 3.64 feet; FMS Evaporation Pond A = 8.55 feet; FMS Evaporation Pond B = 6.07 feet; FMS Evaporation Pond C = 5.31 feet; VLT Pond = 9.72 feet; Slot Pond = 14.83 feet. The freeboard level in FMS Evaporation Pond A on July 31 was approximately 1.6 feet. Fluid transfers in July consisted of 9,090 gallons from the Phase 1 Pond to Pond C and 300,786 gallons from the Slot Pond to Pond B. SPS continued to operate the enhanced evaporation pilot study system at the VLT Pond. See attached monitoring data.
- No rainfall occurred during July and the total Site rainfall remained 3.1 inches since January 1, 2016. See attached monitoring data.
- Approximately 19,337 gallons of solution were pumped from the leak detectors in July including 1,228 gallons from the VLT ditches and Sediment Pond, and 18,109 gallons from the Slot HLP perimeter collection ditch. See attached monitoring data.

July 2016 Activities - Continued

Site Security and O&M Activities - Continued

- FMS pond samples for total dissolved solids (TDS) analyses and electrical conductivity (EC) measurements were obtained on July 19 from various depths and locations around the ponds.
- Fawcett Electrical repaired the electrical outlet at the Slot Pond on July 5.
- Desert Engineering watered the roads twice a week in July for dust control.
- Desert Engineering assisted with repairs to the 4- inch VLT pipeline on July 21.

Site Characterization Activities

- Site-wide monthly groundwater elevation measurements were obtained July 25-26 for recently installed monitor wells and wells outfitted with pressure transducers.
- A Pit Lake water elevation of 4,234.97 feet amsl was recorded on July 26, 2016 from the pressure transducer, a decrease of 0.08 feet since June 26, 2016. The pit lake elevation has risen 0.95 feet since July 26, 2015.
- Calibration of the Site meteorological station at AM-6 was performed on July 21.
- The number of domestic wells in the Domestic Well Monitoring Program continued to decrease in July as additional properties were connected to the Yerington municipal water system and domestic wells were taken out of service. Specific changes to the program are anticipated to be documented in the Second Quarter 2016 Domestic Well Monitoring Report (DWMR).
- Based on 2Q 2016 analytical results, residences at DW-213 and DW-214 accepted participation in the Bottled Water Program in July. The number of properties requiring bottled water will decrease as properties continue to be connected to the Yerington municipal water system, and domestic wells are taken out of service.
- Continued the compilation of data for inclusion in the 1Q 2016 Groundwater Monitoring Report (GMR) and the 1Q 2016 DWMR.
- Continued the preparation of a technical memorandum describing proposed modifications to the Site-wide groundwater monitoring program.
- Transmitted the Process Areas (OU-3) Human Health Risk Assessment (HHRA) Technical Memorandum (Tech Memo 3) dated July 13, 2016. EPA provided comments via an e-mail dated July 22, 2016.
- EPA transmitted a letter dated July 31, 2016 approving the Bedrock Groundwater Assessment Tech Memo and stating that the Tech Memo should be included as an appendix to the OU-1 RI Report.
- EPA transmitted a letter dated July 31, 2016 approving the Geochemical Characterization Data Summary Report (DSR), subject to addressing EPA comments, and stating that the revised DSR should be included as an appendix to the OU-1 RI Report.
- Continued to compile information for inclusion in the OU-1 RI Report.
- Continued to compile data resulting from the Wabuska Drain (OU-7) Phase 1 field sampling and analytical activities.
- Drilling and sampling activities for the Evaporation Ponds Phase 1 FSAP were completed at the following locations: EP-GC-13, GC-17, GC-18, GC-19, GC-21, GC-28, GC-29 and GC-30. Temporary monitor wells EP-GC-12, EP-GC-23, EP-GC-24, EP-GC-25 and EP-GC-26 were pulled and abandoned. Installations of the porous cup lysimeters and soil moisture sensors at the four vadose zone monitoring locations (EP-VZC-2, -3 , -6 and -8) identified in the Phase 1 FSAP were completed between July 19-28.
- Routine database management activities in support of Site investigations and monitoring activities.

Planned August/September 2016 Activities

Site Security and O&M Activities

- Continue routine Site O&M, security and bird deterrent activities.
- Continue FMS pond sampling for total dissolved solids (TDS) analyses and electrical conductivity (EC) measurements.

Site Characterization Activities

- Continue groundwater elevation and pit lake level measurements, and meteorological monitoring.
- Perform the 3Q 2016 groundwater monitoring event (August).
- Prepare for and perform the 3Q 2016 domestic well monitoring event (September). Wells at properties that have received City of Yerington water system connections will not be sampled.
- Continue the Bottled Water Program, with possible modifications as indicated above. Properties that have received City of Yerington water system connections are gradually being removed from the Program.
- ARC will be submitting a letter to EPA that: 1) documents changes to the Domestic Well Monitoring Program and Bottled Water Program resulting from recent City of Yerington Water System connections; and 2) requests confirmation from EPA that ARC will no longer be required to perform domestic well monitoring or provide bottled water at/to any property that is now receiving City of Yerington municipal water service or is receiving treated domestic water from the Yerington Paiute Tribe (YPT) public water system.
- Continue the compilation of data for inclusion in the 1Q 2016 GMR and 1Q 2016 DWMR.
- Complete and transmit the Tech Memo describing proposed modifications to the Site-wide groundwater monitoring program. Continue discussions with EPA regarding the proposed reductions to the groundwater and domestic well monitoring programs including analytical parameters, wells to be sampled and the quarterly/annual report contents.
- Attend a groundwater technical meeting on August 2 to discuss the screening of remedial action alternatives and other FS-related subjects with EPA and other stakeholders. Follow-up with OU-1 FS deliverables discussed during the technical meeting.
- Continue to compile information for inclusion in the OU-1 RI Report, including an analysis of chemical concentration stability in Site-wide groundwater monitor wells.
- Continue to compile OU-7 field and laboratory analytical data into tables and maps for use in a future technical meeting with EPA and other stakeholders.
- Continue and complete drilling and sampling of soils and groundwater in the Evaporation Ponds, and the installation of vadose zone monitoring equipment installation at four locations (EP-VZC-2, -3, -6 and -8). Initiate development of the OU-4a DSR.
- Attend a Community Meeting on August 16.
- Participate in a Site tour of Arimetco facilities with EPA on August 17.

Please contact me at (657) 529-4581 or via e-mail at jack.oman@bp.com if you have any questions or comments about this July 2016 monthly report.

Sincerely,

Jack Oman
Project Manager

Attachment

cc: Harry Ball, EPA – via electronic mail
Dante Rodriguez, EPA – via electronic mail
Andrew Helmlinger, EPA – via electronic mail
Tom Dunkelman, EPA – via electronic mail
Jeff Collins, NDEP – via electronic mail
Jeryl Gardner, NDEP – via electronic mail
Dave Davis, BLM – via electronic mail
Dan Newell, City of Yerington – via electronic mail
Phyllis Hunewill – via electronic mail
Jim Sanford, MVEC – via electronic mail
Tom Grady, Nevada State Assembly – via electronic mail
Chairwoman Thom, YPT – via electronic mail
Ginny Hatch, YPT – via electronic mail
Deborah Dunn, YPT – via electronic mail
Dietrick McGinnis, McGinnis and Associates – via electronic mail
Tom Bowden, Ridolfi, Inc. – via electronic mail
Chairman Sanchez, WRPT – via electronic mail
Cynthia Oceguera, WRPT – via electronic mail
Ron Halsey, Atlantic Richfield Company – via electronic mail
Nathan Block, Atlantic Richfield Company – via electronic mail
Patricia Gallery, Atlantic Richfield Company – via electronic mail
Brian Johnson, Atlantic Richfield Company – via electronic mail
John Batchelder, EnviroSolve – via electronic mail
Dan Ferriter, Copper Environmental – via electronic mail
Mike Mahon, Copper Environmental – via electronic mail
Randy Miller, Broadbent – via electronic mail
Travis Phelps, Arcadis – via electronic mail
Jim Chatham, Atlantic Richfield Company – via electronic mail
Adam Cohen, Davis Graham & Stubbs – via electronic mail
Bill Duffy, Davis Graham & Stubbs – via electronic mail
Tom Patton, Singatse Peak Services, LLP – via electronic mail
Taurus Massey, Singatse Peak Services, LLP – via electronic mail
David Peri, Peri and Sons – via electronic mail
John McMillan, CBI – via electronic mail
Julian Isham, CBI – via electronic mail
Victor Early, Tetra Tech – via electronic mail
Colin Lee, Tetra Tech – via electronic mail
Ken Greene, CH2M Hill – via electronic mail
Peggy Pauly, YCAG – via electronic mail
Lyon County Library System Central