EPA Anaconda Mine

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • January 2013

Yerington, Nevada

Community Meeting on Groundwater Investigation

On January 31, 2013, EPA will hold a community meeting focused on the current status of the Anaconda groundwater investigation. The meeting will be held in the Yerington Elementary School multipurpose room, 112 North California Street, from 6:30pm to 8:30pm. EPA will follow up this meeting with one that covers the status of all portions of the site.

Workplans for Public Review

Groundwater Workplan review ends February 15

Schedule for Review of Groundwater (OU-1) Remedial Investigation Workplan	
Draft Workplan Submitted	November 20, 2012
Review Period	November 20, 2012 to February 15, 2013
Community Meeting: Groundwater briefing, Workplan discussion, Q & A	January 31, 2013 in Yerington
Comments Due	February 15, 2013
Comment Review Meeting	March 5, 2013 to March 7, 2013 in Reno or Yerington (2 or 3 days)

Process Area Workplan review ends February 1

Schedule for Review of Process Areas (OU-3) Remedial Investigation Workplan	
Workplan Released	November 9, 2012
Review Period	November 9, 2012 to February 1, 2013
Comments Due	February 1, 2013
Comment Review Meeting	February 19, 2013 to February 21, 2013 in Reno or Yerington (1 or 2 days)

Community Meeting

January 31, 2013
6:30p.m. to 8:30p.m

Yerington Elementary School
Multi-purpose Room
112 N California St., Yerington, NV

Site -wide Groundwater (OU-1)

EPA and the Atlantic Richfield Company (ARC) will brief the community on the latest information on groundwater conditions and present an overview of the Remedial Investigation workplan that has been prepared by ARC to close the remaining groundwater data gaps. Technical experts will be available to answer questions. Site-wide groundwater is designated as Operable Unit 1 (OU-1) of the Anaconda Mine site and ARC is conducting site investigations as the successor company to the Anaconda Mining Company. The groundwater workplan is currently available for public review (please see box with review schedule).

The groundwater monitoring network has expanded greatly in the last few years and now consists of more than

300 wells. The wells span a large geographic area starting south of the Anaconda Mine Pit Lake and extending north to monitoring wells of the Yerington Paiute Tribe. The wells are providing important information on groundwater movement and the nature and extent of groundwater contamination.

Groundwater in Mason Valley flows generally from south to north, in concert with the Walker River. The River serves as the main source of water to the groundwater system. Under the Anaconda Mine site, groundwater moves southeast to northwest, with some variations caused by the filling of the Pit Lake and movement of water around bedrock outcrops.

The mining operations of the Anaconda Company and successor site owner Arimetco, Inc., the conveyance of process solutions, and the disposal of waste rock, tailings, and process water have released contaminants to the land and groundwater. Figure 1 below, which shows the distribution of sulfate in shallow groundwater, illustrates the type of information that has been gathered regarding contamination below the site and the extent of contaminant movement from the source areas. Sulfate is one of the indicator compounds associated with the site's historic mining activity. To provide perspective on the concentrations shown on Figure 1, the federal maximum contaminant level for sulfate in drinking water is 250 milligrams per liter (mg/l).

The Remedial Investigation workplan identifies the remaining data gaps that must be filled before cleanup alternatives can be developed and evaluated. The work of the last few years has begun to fill many of the gaps, but questions needing more complete resolution include:

- What concentrations of site contaminants occur naturally in site groundwater and what has been caused by site activities?
- How and where are contaminants being released into the groundwater and what physical and chemical characteristics of the water and site geology are influencing concentration and movement?
- What influence does agricultural pumping and application of irrigation water and agricultural chemicals have on groundwater?
- Where will the contamination move in the future?
- What risk does the contamination present to human health?

The work that has been proposed by ARC to answer these questions includes the following major components:

- Background groundwater quality assessment
- Characterization of bedrock
- Groundwater system hydraulic property testing at an agricultural well
- Geochemical analyses of natural processes on metals in groundwater
- Modeling of groundwater flow and chemical transport
- A human health risk assessment

The answers to these questions will help EPA, NDEP, and the other site stakeholders develop and implement solutions to restore groundwater quality. If interim solutions are identified, they may be implemented while additional site work is completed.

Process Area (OU-3) Workplan

EPA has prepared a Remedial Investigation workplan to characterize the nature and extent of contamination, define historic and current source points, determine the areas of concern, and refine remaining data gaps within the former Anaconda Process Area, Operable Unit 3 (OU-3). The workplan expands on previous investigations conducted within the Process Area and will be implemented by the Atlantic Richfield Company.

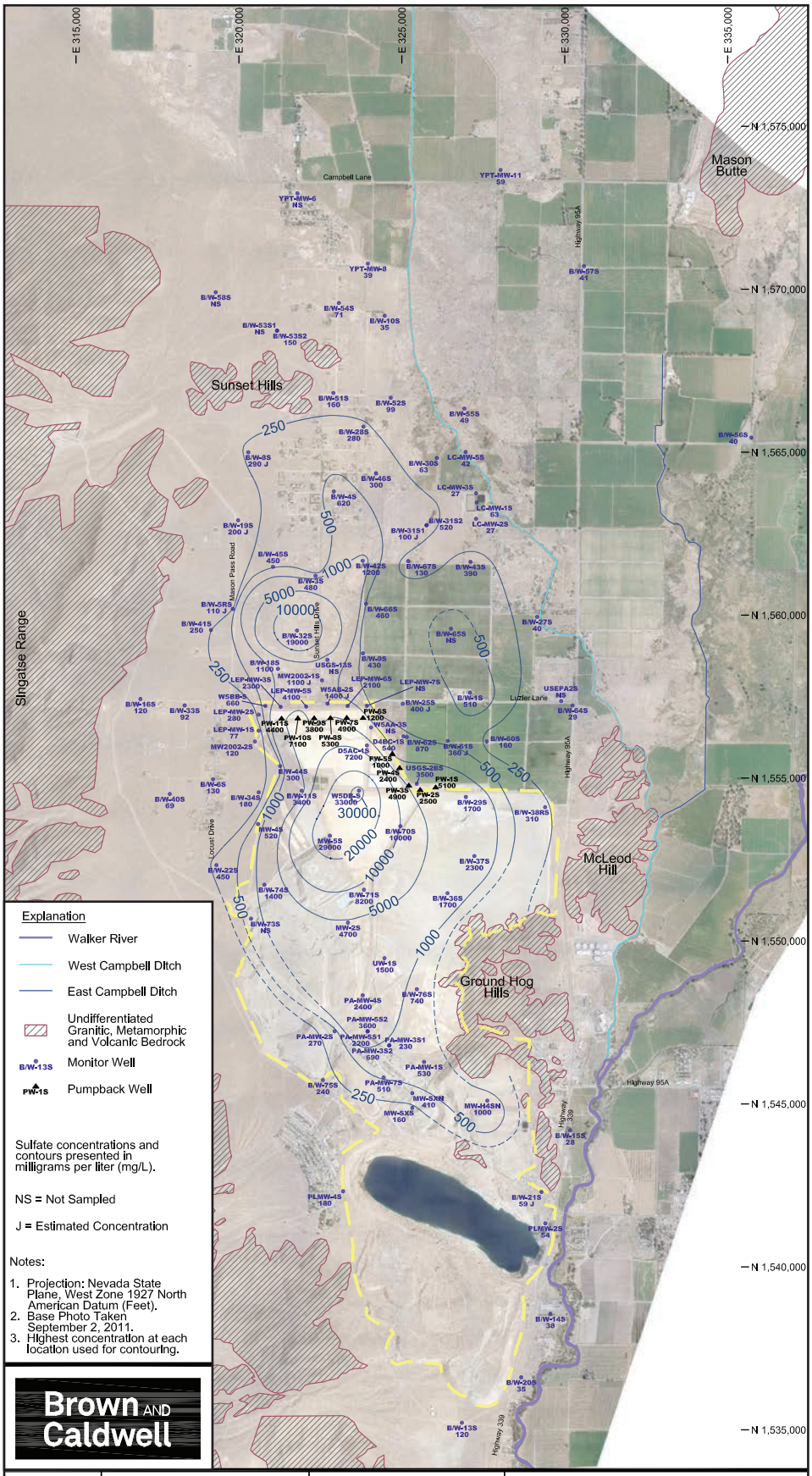
The Process Area workplan focuses on characterizing subsurface soils with the following objectives:

- Define the nature and extent of contamination in soils within the Process Area.
- Improve the understanding of potential contributions to groundwater underlying the Process Area.
- Collect data that will support future evaluations of the fate and transport of contaminants in the Process Area.
- Collect sufficient data that will support future evaluations of risk to human health and ecological receptors.
- Collect data that will support the development and analysis of remedial alternatives.

The workplan is currently available for public review as shown in the box on page 1.

Domestic Well Sampling Program Update

Since 2003, and under the direction of EPA and NDEP, Atlantic Richfield Company has been sampling domestic wells to the west and north of the Anaconda site and providing bottled water to any household whose well has been found to contain more that 25 micrograms per liter (ug/l) of uranium



during one or more sampling event. The federal Maximum Contaminant Level standard for uranium in drinking water is 30 ug/l. The domestic well sampling program is entirely voluntary, and ARC currently has permission to sample more than 160 wells. Homes which receive bottled water are sampled twice a year; homes which do not receive bottled water are sampled quarterly.

The most recent domestic well monitoring event was conducted in November 2012. During that event, EPA resumed the spilt sampling effort which is used as a quality control measure for the domestic well program. Under split sampling, Atlantic Richfield Company and EPA (or their contractors) collect samples at the same time from a subset of wells, and send the samples to separate laboratories for analysis. The results from the two laboratories are then compared.

If the results are in close agreement, it indicates that the domestic well sampling program can generally be considered to deliver accurate results. If the results are not in close agreement, further evaluation is be necessary to determine if changes may be required to sample collection practices or if further evaluation of the laboratories may be warranted.

As of the writing of this fact sheet, the results of the split sampling for the Fourth Quarter 2012 event are not yet available; however, the information will be released to the public when it is. Historically, the overall agreement between ARC and EPA samples collected under the split sampling program has been good.

Anaconda Mine

Community Meeting on Groundwater Investigation — January 31, 2013

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Information Repository

For site documents, please visit the Information Repository at:

Lyon County Library
20 Nevin Way
Yerington, NV 89447
(775) 577-5042

Anaconda Mine Web Site:
http://www.epa.gov/region09/anaconda

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