

# Atlantic Richfield Company

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November 16, 2009

Mr. Kevin Mayer  
US EPA Region 9  
75 Hawthorne Street SFD-7-2  
San Francisco, California 94105

**Re: Addendum #1 to 2009 Draft Program Work Plan for Remedial Investigation and Feasibility Study at Leviathan Mine, Alpine County, California  
U.S. EPA Region IX, CERCLA Docket No. 2008-18**

Dear Mr. Mayer:

Atlantic Richfield Company ("Atlantic Richfield") received comments to the July 10, 2009 Program Work Plan for the Remedial Investigation/Feasibility Study (PWP) in a letter from the EPA dated October 15, 2009. The PWP was prepared in compliance with the Unilateral Administrative Order for Remedial Investigation and Feasibility Study, Leviathan Mine, Alpine County, California CERCLA Docket No. 2008-18 dated June 23, 2008 (Administrative Order) and as described in EPA's April 23, 2009, Approval with Comments for the Leviathan Mine Data Quality Objectives Report submitted October 2008. EPA's principal comment was that the PWP should include a more complete explanation of how the tasks presented in Section 5.0 of the PWP will be integrated to address the principle objectives of the RI/FS and fulfill the requirements of the Administrative Order. At a meeting between Atlantic Richfield and the EPA on September 29, 2009, it was agreed that four items would be submitted in this Addendum to the PWP to meet this objective. The four items described in EPA's October 15, 2009 letter are reiterated below followed by a description of Atlantic Richfield's submittals.

**1) A cross-reference between the RI/FS components presented in the PWP and the corresponding sections of the Scope of Work (SOW) included in the Administrative Order.**

The SOW requirements are presented in Section 1.1, 1.2, and 1.3 of the PWP. The RI/FS Scoping process and DQOs required by the SOW are presented in Section 3.3 of the PWP. The RI/FS scope presented in the PWP originated per guidance from the DQOs. The scope was then modified based on the SOW and stakeholder comments to the DQOs as described in Section 4 and 5 of the PWP.



In response to discussions with EPA, the number of focused remedial investigation (FRI) work plans proposed in the PWP has been substantially reduced, in part to facilitate EPA review. Atlantic Richfield has adopted the FRI work plan structure proposed by EPA in the October 15, 2009 letter, consolidating the tasks into five FRI work plans. The majority of the RI/FS will be proposed under an On-Property FRI Work Plan and an Off-Property FRI Work Plan. A Reference Site FRI Work Plan is also proposed to allow early implementation of important reference area data collection.

With this revised work plan structure as the basis, two tables are provided as part of this Addendum to address EPA's request for a cross-reference between the RI/FS components presented in the PWP and the corresponding sections SOW. Table 1 summarizes the Focused Remedial Investigation (FRI) Work Plans completed or planned to be completed and the PWP RI/FS tasks that will be addressed by each of these work plans. Table 1 may be used as a short-hand guide for understanding the scope of the tasks performed under each FRI Work Plan. Table 1 also includes the approved Mapping and Well FRI Work Plans. As EPA knows, these two Work Plans were prepared in advance of the PWP in order to facilitate data collection in 2009. Note that the surface water and sediment and bioassessment tasks have both on-property and off-property components.

Table 2 provides a cross-reference between the planned FRI Work Plans, the primary RI/FS components presented in the PWP, and the corresponding sections of the SOW. The table shows that all of the SOW requirements will be addressed by the RI/FS scope presented in the PWP.

**2) *An explanation of how the various work plan components are prioritized and designed to address the fundamental issues of the RI/FS. EPA prepared two draft decision flow charts as examples of approaches to the major objectives of understanding the source of acid drainage and identification and quantification of the downstream risks to human health and ecological communities. EPA asked that the specific tasks of the PWP be arranged with a framework such as these flow charts. EPA also provided a set of example Data Quality Objective statements to show the level of detail expected in the PWP.***

As described above and in the PWP, the EPA Scoping and DQO processes were used to develop the Conceptual Site Model (CSM) and then the Problem Statements and Principal Study Questions (“fundamental issues”) for the RI/FS. The work plan RI components presented in Section 5 of the PWP were developed, structured, and prioritized to address the DQOs after considering the SOW and stakeholder comments as described in Section 3 and 4 of the PWP. Table 43 of the PWP provides a summary of the data collection needs developed as part of Step 7 of the DQOs. The initial DQOs used to develop the RI/FS scope were planned to be refined in subsequent FRI work plans.

In the October 15, 2009 comment letter, EPA requested “a more complete explanation of how the fifty-one components presented in the PWP will be integrated to address the principle objectives of the RI/FS and fulfill the requirements of the Administrative Order.” Table 1 shows the integration of the tasks into the respective work plans. Table 2 shows a cross reference to the requirements of the SOW. The attached schedule shows a timeline for completing the requirements.

Two draft decision flow charts and a set of DQO statements were provided in the October 15, 2009 letter as examples of the approach and level of detail expected in the PWP. As described above, Atlantic Richfield is in the process of preparing more detailed DQOs as part of the three FRI work plans yet to be submitted. Attached are two example draft DQOs for the Reference Site FRI Work Plan and the On-Property FRI Work Plan. These draft DQOs show an additional level of detail above the example DQO statements provided by EPA with the October 15, 2009 letter. When finalized, these DQOs, along with the rationale and descriptions in the work plans and the PWP and the SAP, will provide the necessary detail to complete the RI/FS scope of work consistent with the Administrative Order. Similar DQOs are in progress for the Off-Property FRI Work Plan.

**3) *An index of existing information specific to Leviathan Mine cross referenced to the particular RI/FS components the information may support. EPA understands that not all of the information collected to date is of sufficient data quality or completeness to be fully useful though EPA is interested in identifying existing information sources that may be relevant to the RI/FS process and to possibly avoid unnecessary duplication of effort.***

Table 3 presents a listing of the previous investigation data cross referenced to the primary RI/FS components. This previous investigation data was summarized in Section 2, 3 and Table 40 of the PWP, a data quality review is presented in Table 41 and a summary of the remaining data considered for use in the RI/FS risk assessment is presented in Table 42 of the PWP.

**4) *A revised schedule that identifies dates and deliverables for the RI/FS activities identified in the work plan.***

A prioritization and general schedule for the RI/FS activities was presented in Section 10 of the PWP. The three-tier prioritization assumed a conceptual three-year time frame, which we understand is EPA’s desired schedule for completion of the RI/FS. EPA had indicated in its approval letter for the DQO report that upon review of the PWP, EPA will direct submittal dates for subsequent FRI work plans and therefore a more specific schedule could not be presented in the PWP.

A revised schedule that identifies dates and deliverables for the RI/FS activities identified in the work plan is attached. The schedule begins in fourth quarter 2009 and projects RI/FS activities on a quarterly basis through 2014. The schedule includes a

plan for submittal and EPA review and approval of the additional FRI work plans in early 2010. If EPA approval takes longer than projected, the implementation schedule for the FRI work will be delayed perhaps significantly due to the sequential development of certain tasks and seasonal sampling needs. Very general assumptions were used in sequencing the RI/FS work over the projected three-year time period. As the FRI work plans have not been completed or approved, this projection is speculative, and Atlantic Richfield assumes this schedule will be used primarily for planning purposes. Annual RI/FS data summary and FRI specific reporting is also anticipated in the schedule. The Draft RI report is projected to be submitted in December of 2013, followed six months later by the risk assessment and another six months later by the FS Report. The actual schedule for completion of the RI/FS is contingent upon EPA approval of the RI/FS work plans, the complexity of the data collection, and consensus on adequate completion of the RI characterization to the level necessary to prepare the RI and risk assessment reports. The RI/FS schedule will be updated periodically over time.

Sincerely,



Anthony Brown  
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#### Attachments

cc: Gary Riley, EPA Region 9  
Adam Cohen, Esq. Davis Graham & Stubbs LLP – via electronic  
Nathan Block, BP - via electronic  
Sandy Riese, EnSci - via electronic  
Joe Niland, Geomatrix – via electronic