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Summer 6-3-2024

**Approval letter for the Butte Priority Soils Operable Unit (BPSOU) Draft Final Uncontrolled Surface Flow Areas Remedial Design (RD) Work Plan, Draft BPSOU Uncontrolled Surface Flow Areas Pre-Design Investigation (PDI) Work Plan, 2023 Uncontrolled Surface Flow Area Soil Characterization Quality Assurance Project Plan (QAPP) [dated January 25, 2024]**

Molly Roby

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## REGION 8

DENVER, CO 80202

June 3, 2024

Mr. Mike McAnulty  
Liability Manager  
Atlantic Richfield Company  
317 Anaconda Road  
Butte, Montana 59701

**Re: Approval letter for the Butte Priority Soils Operable Unit (BPSOU) Draft Final Uncontrolled Surface Flow Areas Remedial Design (RD) Work Plan, Draft BPSOU Uncontrolled Surface Flow Areas Pre-Design Investigation (PDI) Work Plan, 2023 Uncontrolled Surface Flow Area Soil Characterization Quality Assurance Project Plan (QAPP) [dated January 25, 2024]**

Dear Mr. McAnulty:

The U. S. Environmental Protection Agency (EPA), in consultation with the Montana Department of Environmental Quality (DEQ), has reviewed and is approving the *Draft Final Uncontrolled Surface Flow Areas Remedial Design (RD) Work Plan and Draft BPSOU USFA Pre-Design Investigation (PDI) Work Plan (dated August 31, 2023)*, with conditional approval of the *2023 Uncontrolled Surface Flow Area Soil Characterization Quality Assurance Project Plan (QAPP)*. Please address the **following comments** and those included in the attached QAPP crosswalk before distributing as Final.

### **Outstanding Previous Comments on the 2023 Uncontrolled Surface Flow Area Soil Characterization Quality Assurance Project Plan (QAPP):**

- 21. EPA Original Comment:** Section 2.4, Quality Objectives and Criteria. DQO Step 6 discusses the data package and validation components for this project. It is recommended that a Level 4 or greater data package be procured so that all applicable laboratory sample result information is provided in order to answer any potential questions during validation. More information needs to be provided on how many samples will be collected, how often they will be collected, how many samples are being sent to the laboratory and the overall timeframe of sample collection and submittal to the laboratory. This will help establish the appropriate level of validation. Depending on the frequency of sampling and the objectives of how the data will be used, it is recommended that the first data package submitted to the laboratory be validated to a Stage 4 Level and the remaining data to a Stage 2b Level. Going forward there should be a frequency of 10% Stage 4 Level validation and a 90% Stage 2b Level validation.

**Atlantic Richfield (AR) Response:** Stage 4 validation will be completed at a 10% frequency for COCs, with any remaining COC data undergoing *stage 2b* data validation. All other data that is not

COC related will undergo stage 2a validation. Details regarding numbers of samples can be found in Table 2.

**EPA Backcheck Comment:** This is an *acceptable* approach, but the text does not mention the remaining 90% of COC data undergoing stage 2b data validation. This should be clearly stated in the text.

22. **EPA Original Comment:** Section 2.4.2, Measurement Performance Criteria for Data, Representativeness The field duplicate RPD criteria should be 35% for soil samples with a  $\delta < 2x$  the RL for sample results less than five times the reporting limit for soil samples.

**AR Response:** Section 2.4.2 has been updated.

**EPA Backcheck Comment:** The updated text states “ $\leq 35\%$  RPD for sample concentrations greater than five times the reporting limit, and a  $\delta < \text{the RL}$  for samples less than five times the reporting limit.” The “ $< 2x$  the RL” language needs to be added to the text for the soil samples instead of “ $< \text{the RL}$ ” language.

23. **EPA Original Comment:** Section 5.1.5, Specific Quality control/Assessment Procedures. Is the term “process of field and laboratory data quality review” referring to data validation? Is the Data Quality Assessment Report going to be part of the data summary report? A discussion of the Level A/B review should be provided in this section and other applicable sections throughout the QAPP.

**AR Response:** A discussion of Level A/B review is provided in Section 5.2.2. Section 5.1.5 has been updated for clarification.

**EPA Backcheck Comment:** The text in this section should be updated to clarify if the Data Quality Assessment Report is going to be part of the data summary report.

24. **EPA Original Comment:** Table 5. In the text, a header for Table 5 is presented but no table is there, please remove. Table 5 on page 53 of the PDF, there should be discussion on field duplicates and MS/MSD samples for which samples are qualified. For example, the parent samples are qualified if required but if the samples in that sample delivery group are similar to the MS sample they should also be qualified. If the validation levels are increased as recommended, this table needs to be updated to provide the information for all quality control review elements as has been developed on other sites.

**AR Response:** Table 5 header in the text has been removed. Footnotes have been added to Table 5 explaining that matrix similarity is assessed in qualifying data for MS/MSD recoveries, laboratory precision, and field precision outside of acceptance criteria.

**EPA Backcheck Comment:** Footnotes 4 and 5 in Table 5 discussing matrix similarity are incomplete. The text is cut off at the end of both of these footnotes. Please update accordingly. Table 5 also needs to be updated to provide the validation criteria for all quality control review elements required for stage 4 validation (e.g., inductively coupled plasma *serial* dilutions).

25. **EPA Original Comment:** Section 5.2.2, Laboratory Chemistry Data. Update the validation level to 90% Stage 2b and 10% Stage 4.

**AR Response:** Stage 4 validation will be completed at a 10% frequency for COCs, with any remaining data undergoing stage 2b data validation.

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**EPA Backcheck Comment:** The text still states “Stage 2A data quality review, to be performed on 90% of COC data...” this should be updated to Stage 2B for 90% for COCs. The text should also be updated to clarify that all other data that is not COC related will undergo stage 2a validation.

If you have any questions or concerns, please call me at (406) 457-5021.

Sincerely,

Molly Roby  
Remedial Project Manager

**ENCLOSURES**

1. EPA Region 8 QA Document Review Crosswalk
2. EPA and DEQ signature page

**cc:** (email only)

Butte File	Becky Summerville / MR
Chris Greco / Atlantic Richfield	John DeJong / UP
Josh Bryson / Atlantic Richfield	Robert Bylsma / UP
Loren Burmeister / Atlantic Richfield	John Gilmour / Kelley Drye
Dave Griffis / Atlantic Richfield	Leo Berry / BNSF
Jean Martin / Atlantic Richfield	Robert Lowry / BNSF
Irene Montero / Atlantic Richfield	Brooke Kuhl / BNSF
David A. Gratson / Environmental Standards	Lauren Knickrehm / BNSF
Mave Gasaway / DGS	Doug Brannan / Kennedy Jenks
Adam Cohen / DGS	Matthew Mavrinac / RARUS
Brianne McClafferty / Holland & Hart	Harrison Roughton / RARUS
Daryl Reed / DEQ	Mark Neary / BSB
Logan Dudding / DEQ	Eric Hassler / BSB
Jon Morgan / DEQ	Chad Anderson / BSB
Kevin Stone / DEQ	Brandon Warner / BSB
Amy Steinmetz / DEQ	Abigail Peltomaa / BSB
Katie Garcin-Forba / DEQ	Sean Peterson/BSB
Doug Martin / NRDP	Josh Vincent / WET
Jim Ford / NRDP	Scott Bradshaw / W&C
Pat Cunneen / NRDP	Emily Evans / W&C
Katherine Hausrath / NRDP	Pat Sampson / Pioneer
Ted Duaine / MBMG	Karen Helfrich / Pioneer
Gary Icopini / MBMG	Randa Colling / Pioneer

Mike McAnulty

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cc: continued...

Scott Sampson / Pioneer

Jesse Schwarzrock / Pioneer

Ian Magruder / CTEC

CTEC of Butte

Scott Juskiewicz / Montana Tech

David Shanight / CDM Smith

Curt Coover / CDM Smith

Chapin Storrar / CDM Smith

Erin Agee / EPA

Will Lindsey / EPA

Jamie Miller / EPA

Carolina Balliew / EPA

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Katherine Jenkins / EPA

Charlie Partridge / EPA