

APPENDIX C

ACM SMELTER AND REFINERY SITE CASCADE COUNTY, MONTANA REMEDIAL INVESTIGATION/FEASIBILITY STUDY

STATEMENT OF WORK OPERABLE UNIT 1 – RAILROAD CORRIDOR

Work Assignment No.:	118-RICO-0819
Work Assignment Name:	ACM Smelter and Refinery Site
EPA Work Assignment Manager:	Charles Coleman, RPM
Phone Number:	406-457-5038
PWT RAC Program Manager:	Jim Bush, R.G.
Phone Number:	303-274-5400 ext. 47
PWT Team WA/Project Manager:	Robin Witt, P.E.
Phone Number:	303 274-5400 ext. 35
Date:	November 2011

U.S. EPA Contract No. EP-W-06-006

**Prepared for:
United States Environmental Protection Agency
Region 8**

**Prepared by:
Pacific Western Technologies, LTD.
11049 West 44th Avenue, Ste 200
Wheat Ridge, CO 80033**

**STATEMENT OF WORK
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
OPERABLE UNIT 1 – RAILROAD CORRIDOR**

1. INTRODUCTION

The purpose of the remedial investigation/feasibility study (RI/FS) for the Railroad Corridor portion of Operable Unit 1 (OU1) of the ACM Smelter and Refinery Site (Site) is to investigate the nature and extent of contamination in connection with the Railroad Corridor near the community of Black Eagle, Montana, to assess human health risks and to develop and evaluate potential remedial alternatives for the Railroad Corridor portion of OU1. EPA anticipates that assessment of ecological risks for the Site will be deferred to the work performed in connection with the operable units addressing the former smelter facility and property and the Missouri River.

This Statement of Work (SOW) is “Appendix C” to and incorporated as part of the Unilateral Administrative Order for Remedial Investigation/Feasibility Study (Administrative Order) issued by EPA to BNSF Railway Company (BNSF or Respondent).

EPA has established the initial study area boundaries of OU1 for the purpose of planning and developing the preliminary scope of the remedial investigation/feasibility study covering the larger area of the operable unit. RI/FS work under this Administrative Order and SOW is required for the Railroad Corridor, as generally depicted on the map in Appendix B to the Administrative Order.

Areas of Interest for the “Community Soils” and “Outlying Areas,” as shown on Appendix A to the Administrative Order, are currently designated by EPA as part of OU1. However, response actions for these areas are not generally within the definition of Work that EPA will require Respondent to perform under this Administrative Order. The remedial investigation and feasibility study for the Community Soil and Outlying Areas will be performed under separate investigations. Notwithstanding the performance of such separate investigations, performance by Respondent of the RI/FS is required under this Administrative Order and SOW to be completed at all areas of the Railroad Corridor, as defined in the Administrative Order.

2. PURPOSE OF THE STATEMENT OF WORK

This SOW sets forth requirements for conducting an RI/FS for the Railroad Corridor portion of OU1. Respondent shall conduct the RI/FS in accordance with this SOW and the requirements of the Administrative Order, consistent with the National Contingency Plan, 40 CFR Part 300 (NCP) and EPA’s “Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA” (OSWER Directive 9355.3-01, October 1988) and any other guidance

documents that EPA identifies as relevant to any aspect of conducting the RI/FS. A list of the primary guidance documents is included as Attachment A to this SOW.

EPA will establish and maintain the official project database for the RI/FS. EPA will develop the initial Quality Assurance Project Plans (QAPP) (which includes Sampling and Analysis Plans (SAPs), Field Sampling Plans and the Data Management Plan) and will perform data validation in addition to the validation required to be performed by Respondent as described in the final QAPP. Additionally, EPA will conduct the baseline human health risk assessment component of the OU1 remedial investigation which will include a risk assessment for the Railroad Corridor portion of OU1. EPA will provide copies of the draft baseline human health risk assessment report to Respondent.

Respondent shall provide written comments on the draft QAPPs and draft EPA baseline human health risk assessment report (and any other draft documents prepared by EPA) to EPA within 30 days of document receipt. EPA will take Respondent's comments into consideration when finalizing the document. EPA, in consultation with the State of Montana acting through its Department of Environmental Quality (DEQ), will review and EPA will either approve, approve with conditions, modify, disapprove, or provide written comments on Respondent's other deliverables required under this SOW, in accordance with the procedures and deadlines set forth in the Administrative Order. Respondent may discuss comments with EPA and DEQ to determine whether proposed revisions to the QAPP and other deliverables are acceptable to EPA, but such discussions shall not extend the submittal and re-submittal deadlines for any such deliverable. All QAPPs must be approved by EPA prior to implementation.

Pursuant to the Administrative Order, consistent with CERCLA and the NCP, EPA in consultation with DEQ will provide oversight of Respondent's activities throughout the RI/FS. Respondent shall support EPA's initiation and conduct of oversight activities. EPA's determinations, approvals and activities as provided for in the Administrative Order and in this SOW will be conducted in consultation with DEQ, consistent with CERCLA, the NCP and applicable guidance.

Performance of the work described in this SOW by Respondent and EPA's review and approval of documents and activities described in this SOW shall be performed in accordance with the procedures and deadlines set forth in the Administrative Order and this SOW. Respondent shall furnish all necessary personnel, materials and services needed or incidental to performing the work described in this SOW, except as otherwise specified in the Administrative Order and this SOW.

3. INITIAL PLANNING FOR THE REMEDIAL INVESTIGATION

EPA has prepared and/or reviewed a variety of existing reports that summarize sampling activities carried out during prior investigations of the geographic area identified as OU1. Based

on these efforts, EPA anticipates multiple phases of RI/FS for the Railroad Corridor portion of OUI, including, but not limited to:

- scoping investigations,
- remedial investigations and baseline risk assessment,
- feasibility study development and screening of alternatives,
- possible treatability studies, and
- feasibility study detailed analysis of alternatives.

EPA will determine the number of phases necessary to complete the RI/FS and the activities included in each phase.

3.1 Assemble Existing Information

As part of a preliminary remedial investigation for the Railroad Corridor, Respondent shall assemble any existing reports and data not previously provided to EPA that are relevant to the RI/FS (to be limited to any information that was NOT submitted to EPA in Respondent's November 8, 2010, response to EPA's CERCLA Section 104(e) Request for Information) including:

- All documentation and reporting of historical railroad-related operations, activities and studies concerning the facilities and waste areas and associated contaminants in or near the Railroad Corridor, including but not limited to such information describing possible sources of the materials used in construction of the railroad beds and track support at the Railroad Corridor.
- All documentation and reporting of historical operations, activities and studies concerning other potential contaminant sources in or near the Railroad Corridor,
- All environmental sampling and analysis plans,
- All environmental and other data, maps and photos, and
- All reports describing data summaries, data evaluations or interpretations of data in connection with the Railroad Corridor.

This shall include available data relating to the types and quantities of hazardous substances, and pollutants and contaminants in and near the Railroad Corridor.

Respondent shall provide the information in a report to EPA, with a copy to DEQ, in accordance with the schedule contained in Section 11 of this SOW. Respondent shall submit environmental sampling data in an electronic format consistent with the project database structure to allow the data to be uploaded to the project database.

3.2 Conduct Field Visits

Respondent shall provide all support necessary to allow EPA and DEQ to conduct field visits of the Railroad Corridor in order to complete the project scoping phase and to assist in developing a conceptual understanding of sources and areas of contamination as well as potential exposure pathways and receptors. Respondent shall coordinate with EPA to determine the field visit dates, times and scope and shall provide at least two weeks notice of an agreed date. EPA will invite DEQ and EPA may invite other interested agencies to participate in the field visits.

4. COMMUNITY RELATIONS

EPA will develop and implement community relations activities for the Railroad Corridor RI/FS work. EPA will consider Respondent's input in development of a Community Relations Plan for the Site, including the Railroad Corridor portion of OUI. Respondent shall, as requested by EPA, assist EPA by providing information regarding the Railroad Corridor history, participating in public meetings, developing graphics, placing newspaper ads developed by EPA, or distributing fact sheets developed by EPA.

5. RI/FS WORK PLAN

Respondent shall submit a draft RI/FS Work Plan to EPA, with a copy to DEQ, for review and EPA approval in accordance with Section X of the Administrative Order and the schedule contained in Section 11 of this SOW. Required elements of sampling and analysis quality assurance/quality control (QA/QC) to be included in the RI/FS Work Plan are found in the guidance document "EPA Requirements for Quality Assurance Project Plans (QA/R-5)."

In addition, the RI/FS Work Plan shall fully describe all work to be performed under the RI/FS and shall include:

- A discussion of background information which addresses the nature and extent of the problem, the history of regulatory and response actions for the Railroad Corridor, identifies a preliminary study area boundary consistent with the boundaries shown in Appendix B, and presents a local regional summary of the environs surrounding the Railroad Corridor;
- A list of Respondent's key project personnel and responsibilities;
- A project description and description of the overall technical approach;
- A general discussion of Data Quality Objectives (DQOs) including measurements of performance;
- A data management plan; and
- A proposed schedule of all activities.

6. SITE CHARACTERIZATION

The overall objective of site characterization is to fully describe the nature and extent of contamination within the Railroad Corridor to obtain data of adequate technical content to describe areas of the Railroad Corridor that may pose a threat to human health or the environment. Respondent shall perform the activities described in this section including:

- Implement EPA-prepared QAPPs and work plans;
- Document field activities;
- Perform the laboratory analysis of samples at laboratories approved by EPA and in accordance with the EPA-prepared QAPPs;
- Deliver laboratory data to EPA, with a copy to DEQ, in the format specified in the SAPs;
- Prepare summary reports for each phase of investigation;
- Prepare draft and final remedial investigation reports; and
- Comply with the schedule included in each EPA-prepared QAPP.

Respondent shall notify EPA at least 30 days in advance of field work starting for each phase of the RI, and shall provide a monthly progress report, with a copy to DEQ, and participate in meetings at EPA's request. Respondent shall notify EPA in writing upon completion of field activities for each phase of the RI.

6.1 Development and Implementation of Quality Assurance Project Plans

EPA will develop and issue to Respondent a detailed QAPP for each phase of the RI that entails sample collection and field or laboratory analysis of the collected samples. The QAPPs will be prepared as a draft for Respondent review, and may require the submission of relevant information by Respondent. EPA may require Respondent to include detailed information for inclusion in the final QAPP (e.g., standard operating procedures, analytical laboratory reporting limits, names and responsibilities of key project personnel, schedule). EPA will approve all final QAPPs. Respondent shall fully implement the final EPA-approved QAPP for each phase of the RI.

EPA anticipates that there will be multiple phases of the RI, with the number of phases required to be determined by EPA, in consultation with DEQ. The final EPA-prepared and approved QAPP for each phase of the RI shall include a description of the goals for the specific phase, a list of key personnel and responsibilities, Data Quality Objectives (DQOs), field sampling plans, SAPs, and data management plans and schedules. Respondent shall provide the information required by EPA to complete and approve each final SAP. Each final EPA-approved QAPP will describe the sampling program including the rationale, number, type, and location of samples; the sample collection, handling and custody procedures; the required field documentation and the required analytical methods. QAPP procedures shall describe the measures necessary to generate data of sufficient quality to achieve the DQOs. The QAPP shall specify any special training requirements and certifications, quality control requirements for field activities and analytical processes, and data validation requirements. After receipt by Respondent of each draft EPA-prepared SAP, Respondent shall provide the information indicated and submit the draft SAP to EPA, with a copy to DEQ, for review and EPA approval in accordance with Section X of the Administrative Order and the schedule contained in Section 11 of this SOW.

Respondent shall prepare a Health and Safety Plan (HSP) specific to the activities and submit it to EPA, with a copy to DEQ, for review and EPA approval in accordance with Section X of the Administrative Order and the schedule contained in Section 11 of this SOW. Respondent is solely responsible for ensuring the health and safety of its employees and/or contractors performing any of the work described in this SOW. Respondent shall exercise best efforts to obtain access to properties for sampling, pursuant to the Administrative Order, and shall implement each final EPA-approved QAPP in accordance with the schedule included in the EPA-approved QAPP. Respondent shall arrange for validated analytical data from laboratories to be reported to EPA, with a copy to DEQ, in the format specified by EPA in the final EPA-approved QAPP. Respondent will perform all required data validation described in the final EPA-approved QAPP.

Respondent shall consistently document and adequately record in well maintained field logs and laboratory reports, information gathered during implementation of each final EPA-approved QAPP. The method(s) of documentation shall be consistent with that specified in the final EPA-approved QAPP. Respondent shall use field logs to document observations, measurements, and significant events that occur during field activities. Respondent shall ensure that laboratory reports document sample custody, analytical responsibility, analytical results, adherence to prescribed protocols, nonconformity events, corrective measures, and/or data deficiencies.

Respondent shall maintain field reports and sample shipment records. Analytical results developed under the QAPPs shall not be included in any site characterization summary reports or RI report unless accompanied by or cross-referenced to a corresponding QA/QC report. In addition, Respondent shall establish a data security system to safeguard field logs, field data sheets, laboratory reports, chain of custody forms and other project records to prevent loss, damage, or alteration of project documentation. Respondent shall submit a written description of the data security system to EPA, with a copy to DEQ, for review and EPA approval in accordance with Section X of the Administrative Order and the schedule contained in Section 11 of this SOW.

6.2 Data Summary Reports

For each phase of the RI and for each QAPP completed, Respondent shall prepare a Data Summary Report describing the implementation of the SAP. Each Data Summary Report shall include the field documentation specified in the QAPP, a description of the physical characteristics of the study area, analytical results for all sampling conducted, results of all required field quality control procedures, and results of all field and laboratory audits performed by the Respondent as specified in the final EPA-approved QAPP. For each phase of sampling, Respondent shall submit a Data Summary Report to EPA, with a copy to DEQ, for review and EPA approval in accordance with Section X of the Administrative Order and the schedule established in the final EPA-approved QAPP for that phase.

6.3 RI Report

After the QAPP for the final phase of the Railroad Corridor RI has been implemented, Respondent shall prepare and submit a draft RI Report to EPA, with a copy to DEQ, for review and EPA approval in accordance with Section X of the Administrative Order and the schedule contained in Section 11 of this SOW. The RI Report shall summarize results of field activities, the sources of contamination, the nature and extent of contamination and the fate and transport of contaminants. Respondent shall refer to Table 3-13 in EPA's "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA", OSWER Directive 9355.3-01, October 1988, for a suggested RI report format with the exception that EPA will prepare the baseline human health risk assessment.

Within the RI Report, Respondent shall analyze and evaluate the data to describe the following, including but not limited to:

- Physical and biological characteristics of the Railroad Corridor,
- Contaminant source characteristics,
- Nature and extent of contamination, and
- Contaminant fate and transport.

The RI Report will include the actual and potential magnitude of releases from the sources, and horizontal and vertical spread of contamination as well as mobility and persistence of contaminants. Where modeling is appropriate, such models shall be identified in a letter submitted to EPA, with a copy to DEQ, for review and EPA approval, in consultation with DEQ, prior to their use. All data and programming, including any proprietary programs, shall be made available to EPA. This analysis and evaluation shall provide any and all information relevant to Railroad Corridor area characteristics necessary for the development and evaluation of remedial alternatives.

6.4 Remedial Action Objectives

EPA, in consultation with DEQ, will develop remedial action objectives and a list of potential State and federal ARARs based on the information provided in the final EPA-approved RI Report and the baseline human health risk assessment prepared by EPA.

6.5 Designation of Operable Units.

EPA reserves all rights to establish other operable unit(s) at the Site and to adjust or revise the boundaries of any operable unit at the Site. EPA reserves all rights under the law to require and/or implement emergency (time-critical or non-time-critical) response or removal actions at the Site, including areas within the Railroad Corridor, as EPA may determine necessary.

7. DEVELOPMENT AND SCREENING OF REMEDIAL ALTERNATIVES

Respondent shall perform the following activities to complete the development and screening of remedial alternatives.

7.1 Develop General Response Actions

Respondent shall develop distinct, general response action alternatives that will satisfy the remedial action objectives developed by EPA, in consultation with DEQ, for the Railroad Corridor. General response actions may include treatment, containment, excavation, extraction, disposal, institutional controls, or a combination of these.

For each environmental medium for which remedial action objectives have been developed by EPA, in consultation with DEQ, Respondent shall make an initial determination of areas or volumes to which general response actions may apply, taking into account conditions at and near the Railroad Corridor and the nature and extent of contamination as identified in the RI, and acceptable exposure levels and potential exposure routes identified by EPA in the remedial action objectives.

7.2 Identify and Screen Remedial Technology Types and Process Options

Respondent shall identify and evaluate remedial technology types and process options applicable to each general response action. The term “technology types” refers to general categories of technologies. The term “process options” refers to specific processes within each technology type. Several broad technology types may be identified for each general response action and numerous technology process options may exist within each technology type.

Respondent shall use information from the RI on contaminant types and concentrations and Railroad Corridor area characteristics to propose screening out technologies and process options that cannot be effectively implemented at the Railroad Corridor. Respondent shall document in a technical memorandum, entitled “Initial Technology and Process Option Screening Technical Memorandum,” the results of the initial proposed screening of technology types and process options for the Railroad Corridor. For efficiency, the Initial Technology and Process Option Screening Technical Memorandum (referenced in this section) can be combined with the Development and Screening of Alternatives Technical Memorandum referenced in Section 7.5 of this SOW, and the treatability studies letter referenced in Section 8.1 into a single submittal, subject to EPA’s approval. Respondent shall refer to Figures 4-4 and 4-5 in the “Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA,” OSWER Directive 9355.3-01, October 1988 for examples of figures that may be used to summarize the initial screening of technologies and process options and the evaluation of process options. Respondent shall submit the technical memoranda that document the tasks described in this Section 7.2 and Sections 7.5 and 8.1 of this SOW to EPA, with a copy to DEQ, for review and EPA approval in accordance with Section X of the Administrative Order and in accordance with the schedule contained in Section 11 of this SOW.

7.3 Assemble and Document Alternatives

Respondent shall assemble selected representative technologies into alternatives that represent a range of distinct treatment and containment combinations that address the remedial action objectives for the Railroad Corridor. Respondent shall specify in detail the reasons for proposing to eliminate alternatives during the preliminary screening process.

7.4 Alternative Screening and Selection of Alternatives for Detailed Analysis

Respondent shall perform a proposed screening of each remedial alternative based on effectiveness, implementability, and cost. As appropriate, the screening will preserve the range of treatment and containment alternatives that was initially developed. The range of remaining alternatives will include options that use treatment technologies and permanent solutions to the maximum extent practicable.

7.5 Development and Screening of Alternatives Technical Memorandum

Respondent shall prepare a technical memorandum, entitled the “Development and Screening of Alternatives Technical Memorandum,” summarizing the work performed in the development and proposed screening of alternatives and the results of each subtask described in this section including:

- A description of the general response actions and the areas or volumes of contaminated media to which they apply,
- A description of the remedial technology types and process options applicable to each general response action,
- The results of the initial screening of remedial technology types and process options,
- A description of the remedial alternatives,
- The results of the proposed screening of alternatives based on effectiveness, implementability, and cost,
- A description of the alternatives that remain after screening and the proposed action specific State and federal ARARs for each alternative.

Respondent shall submit the Development and Screening of Alternatives Technical Memorandum to EPA, with a copy to DEQ, for review and EPA approval in accordance with Section X of the Administrative Order and in accordance with the schedule contained in Section 11 of this SOW.

8. TREATABILITY STUDIES

EPA may require Respondent to perform treatability studies to provide sufficient data to allow treatment alternatives to be fully developed and evaluated during the feasibility study and/or to reduce the cost and performance uncertainties for treatment alternatives to levels sufficient to allow EPA to select a remedy. EPA may also allow Respondent to rely on or incorporate for consideration the results of treatability studies from other similar sites that were conducted under EPA oversight.

8.1 Letter Report

Respondent shall identify a range of candidate technologies for treatability studies based on the remedial action objectives and the list of potential State and federal ARARs and taking into consideration the final results of the development and screening of alternatives. Respondent shall describe the candidate technologies in a Treatability Study Letter Report submitted to EPA, with a copy to DEQ, for review and EPA approval in accordance with Section X of the Administrative Order and the schedule contained in Section 11 of this SOW. Within the Letter Report, Respondent shall present information on performance, relative costs, removal efficiencies, operation and maintenance requirements, and implementability of the identified candidate technologies. If EPA determines that the existing data on the Railroad Corridor and the available information on candidate technologies are not sufficient to evaluate alternatives in the detailed analysis of alternatives, EPA may require treatability studies to be performed by Respondent.

8.2 Treatability Studies Work Plan

Where EPA has determined that treatability studies are required, and unless Respondent can demonstrate to EPA's satisfaction that they are not needed, Respondent shall submit a draft Treatability Study Work Plan (conforming to the DQOSAP- QAPP requirements of the UFP- QAPP format) to EPA, with a copy to DEQ, for review and EPA approval in accordance with Section X of the Administrative Order and the schedule contained in Section of 11 of this SOW. The Work Plan shall describe the type of treatability study to be performed (e.g., bench scale or pilot scale) and shall include:

- A discussion of background information;
- A list of key personnel and responsibilities;
- A description of the remedial technologies to be tested;
- DQOs for each test including measurements of performance;
- the experimental procedures for each test;
- A SAP which describes the samples to be collected, sample collection procedures, sampling handling and tracking procedures, a QAPP, and analytical methods;
- A data management plan;
- A health and safety plan; a plan for management of waste generated during the treatability tests; and
- A schedule.

8.3 Treatability Studies Report

Upon EPA approval of the Treatability Study Work Plan, Respondent shall implement the work plan in accordance with the schedule included in the EPA-approved Work Plan. Following completion of the Treatability Study, Respondent shall analyze and interpret the study results in a technical report, termed the Treatability Study Technical Report, submitted to EPA, with a copy to DEQ, for review and EPA approval in accordance with Section X of the Administrative Order and the schedule contained in the final EPA-approved Treatability Study Work Plan. In the report, Respondent shall evaluate the effectiveness, implementability and cost of each

technology and compare test results with predicted results. Respondent shall also evaluate full-scale application of the technology including a sensitivity analysis identifying key parameters affecting full-scale operation.

9. DETAILED ANALYSIS OF ALTERNATIVES

Upon EPA approval of the Development and Screening of Alternatives Technical Memorandum, Respondent shall perform a detailed analysis of the remaining Railroad Corridor remedial alternatives. The detailed analysis shall be sufficient to allow EPA to adequately compare the alternatives, select a remedial action for, and demonstrate satisfaction of the CERCLA statutory remedy selection requirements (Section 121(b)(1)(A) of CERCLA).

Respondent shall assess each alternative against the following seven of the nine evaluation criteria contained in the NCP (40 CFR Part 300.430(e)(9)(iii)):

1. Overall protection of human health and the environment
2. Compliance with ARARs
3. Long term effectiveness and permanence
4. Reduction of toxicity, mobility, or volume through treatment
5. Short-term effectiveness
6. Implementability
7. Cost

Respondent shall conduct the detailed analysis of alternatives by evaluating each alternative against the seven evaluation criteria above and then performing a comparative analysis between remedial alternatives. That is, each alternative shall be compared against the others using the evaluation criteria as a basis of comparison.

10. FEASIBILITY STUDY REPORT

Respondent shall prepare a draft FS Report that summarizes the development and screening of remedial alternatives and the detailed analysis of alternatives. Identification and selection of the preferred alternative are reserved by EPA, in consultation with DEQ. Respondent shall refer to the "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" (OSWER Directive 9355.3-01, October 1988) for an outline of the FS Report and the required FS Report content. Respondent shall submit the draft FS Report to EPA, with a copy to DEQ, for review and EPA approval in accordance with Section X of the Administrative Order and the schedule contained in Section 11 of this SOW.

11. SCHEDULE OF DELIVERABLES

Respondent shall deliver documents and perform activities described in this SOW in accordance with the following schedule:

SOW REFERENCE	DOCUMENT OR ACTIVITY	DELIVERY DATE
Section 3.1	Provide existing information	60 days after the Effective Date of the Administrative Order and thereafter, two (2) weeks after becoming aware of new information
Section 3.2	Conduct field visit	Not later than 45 days after Effective Date of the Administrative Order
Section 3.2	Notification of field visit	2 weeks prior to field visit
Section 4	Community relations support	As requested by EPA
Section 5	Draft RI/FS Work Plan	45 days after the Effective Date of the Administrative Order
Section 5	Final RI/FS Work Plan	30 days after receipt of EPA and DEQ comments on Draft RI/FS Work Plan
Section 6.1	Final Quality Assurance Project Plan (QAPP) for each phase of the RI	30 days after receipt of EPA Draft QAPP
Section 6.1	Draft Health and Safety Plan	2 weeks prior to field visit
Section 6.1	Health and Safety Plan updates necessary for QAPP implementation	30 days prior to start of field work for Phase I QAPP
Section 6.1	Written description of data security system	30 days prior to start of field work for Phase I QAPP
Section 6.2	Data Summary Reports for each phase of sampling (each QAPP)	In accordance with the schedule specified in EPA approved final QAPP for that phase
Section 6.3	Draft RI Report	120 days after field work is complete for final phase of sampling
Section 6.3	Final RI Report	60 days after receiving EPA and DEQ comments on draft RI Report
Section 7.2, 7.5 and 8.1	Draft Initial Technology and Process Option Screening Technical Memorandum, Draft	90 days after receiving final remedial action objectives from EPA and

SOW REFERENCE	DOCUMENT OR ACTIVITY	DELIVERY DATE
	Development and Screening of Alternatives Technical Memorandum, and Draft Treatability Studies Letter Report (if the latter is required)	DEQ
Section 7.2, 7.5 and 8.1	Final Initial Technology and Process Option Screening Technical Memorandum, Final Development and Screening of Alternatives Technical Memorandum, and Final Treatability Studies Letter Report (if the latter is required)	45 days after receiving EPA and DEQ comments on draft Technical Memorandum
Section 8.2	Draft Treatability Studies Work Plan (if required)	30 days after receiving notice from EPA that treatability studies are required
Section 8.2	Final Treatability Studies Work Plan (if needed)	30 days after receiving EPA and DEQ comments on draft Work Plan
Section 8.3	Draft Treatability Studies Technical Report	As specified in EPA approved final Treatability Studies Work Plan
Section 8.3	Final Treatability Studies Technical Report	30 days after receiving EPA and DEQ comments on draft Technical Report
Section 10	Draft OU1 FS Report	120 days after EPA approval of final Development and Screening of Alternatives Technical Memorandum or final Treatability Studies Technical Report, whichever is later
Section 10	Final OU1 FS Report	60 days after receiving EPA and DEQ comments on draft FS report

ATTACHMENT A
List of Guidance Documents

EPA Requirements for Quality Assurance Project Plans (QA/R-5), March 2001

Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA. OSWER Directive 9355.3-01

Guidance for Data Usability in Risk Assessment, (OSWER Directive #9285.7-05, October 1990), or subsequently issued guidance.

Uniform Federal Policy for Implementing Quality Systems, EPA-505-F-03-001, March 2005), or subsequently issued guidance.

A Guide to Developing and Documenting Cost Estimates during the Feasibility Study. EPA 540-R-D0-002, OSWER No. 9355.0-75

CERCLA Compliance with Other Laws Manual. Part I. Interim Final
EPA 540/G - 89/006, OSWER No. 9234.1-01

CERCLA Compliance with Other Laws Manual: CERCLA Compliance with the CWA and SDWA. OSWER No. 9234.2-06/FS