UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 8,
UNITED STATES BUREAU OF LAND MANAGEMENT,
UNITED STATES FISH AND WILDLIFE SERVICE,
THE UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY,
AND
THE STATE OF UTAH NATURAL RESOURCE TRUSTEE

IN THE MATTER OF:	)	ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR EE/CA INVESTIGATION AND REMOVAL ACTION
Richardson Flat Tailings Site Operable Unit 4 Park City, Utah	)	
Park City Municipal Corporation,	)	
Respondent.	)	
Proceeding Under Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622.	)	U.S. EPA Region 8 CERCLA Docket No. CERCLA-08-2013-0001

I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent (Settlement Agreement) is entered into voluntarily by the Respondent, Park City Municipal Corporation (Park City), and the U.S. Environmental Protection Agency (EPA), the Bureau of Land Management (BLM), the U.S. Fish and Wildlife Service (FWS), the Utah Department of Environmental Quality (UDEQ), and the State of Utah Natural Resource Trustee. This Settlement Agreement provides for the preparation and performance of an Engineering Evaluation/Cost Analysis (EE/CA) and a non-time critical removal action (Removal Action) for operable unit 4 (OU4) of the Richardson Flat Tailings Site located near Park City, Utah, as depicted on the map attached as Appendix A. This Settlement Agreement also provides for the reimbursement of Future Response Costs incurred by EPA and BLM in connection with the EE/CA and Removal Action for OU4. In addition, this Settlement Agreement provides for the preparation of a Natural Resource Injury Assessment and Restoration Alternatives Analysis for OU4 and the reimbursement of the Natural Resource Trustees' Future Assessment Costs.

2. This Settlement Agreement is issued under the authority vested in the President of the United States by Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622, as amended (CERCLA). This authority was delegated to the Administrator of EPA and the Secretary of the Interior on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2923 (Jan. 29, 1987), as amended. This authority was further delegated by the EPA Administrator to Regional Administrators on May 11, 1994, by EPA Delegation Nos. 14-14-C and 14-14-D and by the Interior Secretary to the Director of FWS and the Director of BLM pursuant to Part 207, Chapter 7 of the Department of the Interior's Manual. The authority delegated to the Regional Administrator of EPA Region 8 was further delegated to the Assistant Regional Administrator, Office of Ecosystem Protection and Remediation by EPA Delegation No. 14-14-C. The authority delegated to the Directors of BLM and FWS was further delegated to the BLM State Directors and FWS Regional Directors, respectively.

3. In accordance with Sections 104(b)(2) and 122(j)(1) of CERCLA, 42 U.S.C. §§ 9604(b)(2) and 9622(j)(1), the EPA notified the U.S. Department of the Interior and the State of Utah of the release of hazardous substances that may have resulted in injury to the natural resources under federal and state trusteeship at OU4 and of negotiations with potentially responsible parties.

4. The Parties recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Park City in accordance with this Settlement Agreement do not constitute an admission of any liability. Park City does not admit, and retains the right to controvert in any subsequent proceedings, other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of facts, conclusions of law, and determinations in Sections V and VI of this Settlement Agreement. Furthermore, Park City does not admit any responsibility or liability for environmental nor contaminant issues at the Site. The

Parties agree to comply with and be bound by the terms of this Settlement Agreement and further agree that they will not contest the basis or validity of this Settlement Agreement or its terms.

II. PARTIES BOUND

5. This Settlement Agreement applies to and is binding upon the Parties and their successors and assigns. Any change in ownership or corporate status of Park City including, but not limited to, any transfer of assets or real or personal property shall not alter Park City's responsibilities under this Settlement Agreement.

6. Park City shall ensure that its contractors, subcontractors, and representatives receive a copy of this Settlement Agreement and comply with this Settlement Agreement. Park City shall be responsible for any noncompliance with requirements of this Settlement Agreement.

7. Each undersigned representative of the Parties certifies that he or she is fully authorized to enter into the terms and conditions of this Settlement Agreement and to execute and legally bind his or her Party to this Settlement Agreement.

III. STATEMENT OF PURPOSE

8. In entering into this Settlement Agreement, the objectives of the Parties are: (a) to determine the nature and extent of contamination and any threat to the public health, welfare, or the environment caused by the release or threatened release of hazardous substances, pollutants or contaminants at or from OU4 by conducting an engineering evaluation as more specifically set forth in the EE/CA Work Plan for OU4 attached as Appendix C to this Settlement Agreement; (b) to identify and evaluate alternatives to prevent, mitigate or otherwise respond to or remedy any release or threatened release of hazardous substances, pollutants or contaminants at or from OU4 by conducting a cost analysis as more specifically set forth in the EE/CA Work Plan; (c) to conduct all actions necessary to implement the Removal Action to be selected in the Action Memorandum for OU4, in accordance with the Removal Action Work Plan for OU4 to be developed hereunder; (d) to assess injuries to natural resources and identify and evaluate opportunities for coordinating or integrating implementation of natural resource restoration with the Removal Action to be selected for OU4; and (e) to recover response and assessment costs incurred by the Environmental Agencies with respect to this Settlement Agreement.

9. The Work conducted under this Settlement Agreement is subject to oversight and approval by EPA and, with respect to the Work occurring on or affecting land under the jurisdiction, custody or control of BLM (identified herein as the "Silver Maple Claims"), the concurrence of BLM, and shall provide all appropriate and necessary information to assess conditions at OU4 and evaluate alternatives to the extent necessary to select a response action that will be consistent with CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300 (NCP). Park City shall conduct all Work under this Settlement Agreement in

compliance with CERCLA, the NCP, and all applicable EPA guidance, policies, and procedures.

10. Park City shall be responsible for preparing the Natural Resource Injury Assessment and Restoration Alternatives Analysis for OU4. The Natural Resource Injury Assessment and Restoration Alternatives Analysis prepared pursuant to this Settlement Agreement is subject to the approval of the Natural Resource Trustees and shall provide all appropriate and necessary information to identify and quantify any actual and potential injuries to natural resources at OU4, including injuries that may have already occurred as a result of the release of hazardous substances at or from OU4, and injuries that could result from potential removal actions and evaluate restoration alternatives to the extent necessary to prepare a restoration plan to restore, rehabilitate or replace injured resources.

11. In implementing this Settlement Agreement, Park City shall coordinate with the Natural Resource Trustees. As further described in the Scope of Work attached hereto as Appendix D, the Natural Resource Trustees shall be provided with substantial and meaningful opportunities to review and comment on plans, reports, and other items submitted to EPA for approval under this Settlement Agreement in order to ensure (a) that the EE/CA activities undertaken hereunder are coordinated with the Natural Resource Injury Assessment and Restoration Alternatives Analysis; and (b) that the development, evaluation, and selection of removal action alternatives can take into consideration the anticipated effects of such removal actions on natural resources and, where appropriate, can take into consideration opportunities for efficient coordination of removal actions and natural resource restoration measures.

IV. DEFINITIONS

12. Unless otherwise expressly provided in this Settlement Agreement, terms used in this Settlement Agreement which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement Agreement or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

"Action Memorandum for OU4" shall mean the Action Memorandum that will be issued for OU4 upon completion of the EE/CA for OU4.

"BLM" shall mean the United States Bureau of Land Management and any successor departments or agencies of the United States.

"CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 *et seq.*

"Day" shall mean a calendar day. In computing any period of time under this Settlement Agreement, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.

"EE/CA Work Plan" shall mean the work plan for the performance of the EE/CA for OU4 attached hereto as Appendix C. The EE/CA Work Plan is incorporated into this Settlement Agreement and is an enforceable part of this Settlement Agreement. In the event of a conflict between this Settlement Agreement and the EE/CA Work Plan, this Settlement Agreement shall control.

"Effective Date" shall be the effective date of this Settlement Agreement as provided in Section XXXIV.

"Environmental Agencies" shall mean EPA, BLM, FWS, UDEQ, and the State Natural Resource Trustee.

"EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

"Federal Environmental Agencies" shall mean EPA, BLM, and FWS.

"Federal Trustees" shall mean BLM and FWS.

"Future Assessment Costs" shall mean all costs incurred by the Natural Resource Trustees consistent with 43 C.F.R Part 11 in the oversight, review, comment and technical assistance provided on the Natural Resource Injury Assessment and Restoration Alternatives Analysis as further described in the Scope of Work attached hereto as Appendix D.

"Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that EPA and BLM incur in reviewing or developing plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement, including but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, Agency for Toxic Substances and Disease Registry ("ATSDR") costs, the costs incurred pursuant to Paragraph 50 (costs and attorneys fees and any monies paid to secure access, including the amount of just compensation), Paragraph 70 (emergency response), and Paragraph 98 (work takeover).

"FWS" shall mean the United States Fish and Wildlife Service and any successor departments or agencies of the United States.

"Institutional Controls" shall mean proprietary controls and state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices that: (i) limit land, water, and/or resource use to minimize the potential for exposure to Waste Materials at the Site; (ii) limit land, water, and/or resource use to implement, ensure non-interference with, or ensure the protectiveness of the Removal Action; and/or (iii) provide information intended to modify or guide human behavior at the Site.

Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

"Middle Reach" shall mean that portion of OU3, consisting of approximately 116 acres, that is near the eastern end of the Prospector Park in Park City, Utah, and extends to U.S. Highway 40 and includes the Silver Maple Claims portion of the Site. OU3 is depicted generally on the map attached as Appendix A and the Silver Maple Claims portion of OU3 is depicted generally on the map attached as Appendix B.

"National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

"Natural Resource Trustees" shall mean FWS, BLM, and the State Natural Resource Trustee

"Natural Resource Injury Assessment and Restoration Alternatives Analyses" shall mean the activities described in Section X of this Settlement Agreement and the Scope of Work attached hereto as Appendix D.

"OU1 Repository" shall mean the mine waste repository constructed in accordance with the July 7, 2005 Record of Decision selecting the remedy for OU1 of the Site.

"OU3" shall mean an area beginning at the southern and most up gradient portion of the Silver Maple Claims and then proceeding downstream to the Middle Reach and including parcels formerly addressed by the RI/FS for OU2 identified as all or a portion of Summit County Assessor parcel numbers SS-28-A-1-X, SS-27-B-X, SS-28-A-X, SS-56, SS-56-A-1, SS-56-UP-X, SS-56-A, SS-64-A, SS-64-1000-UP-X, SS-65-A-3-1, SS-65-A-5, SS-65-A-3, SS-65-1, SS-65-A-6, SS-88 and excluding any areas within OU4. OU3 is depicted generally on the map attached as Appendix A and the Silver Maple Claims are depicted generally on the map attached as Appendix B.

"OU4" shall mean the discharge from the Prospector Drain, which is identified by EPA and UDEQ as a point source pursuant to the Clean Water Act that has caused or has the potential to cause a release of hazardous substances at or from the Site and includes any areas in close proximity necessary to accomplish the response action goals. OU4 is depicted generally on the map attached hereto as Appendix A.

"Paragraph" shall mean a portion of this Settlement Agreement identified by an Arabic numeral.

"Parties" shall mean EPA, BLM, FWS, UDEQ, the State Natural Resource Trustee, and Park City.

"Park City" shall mean Park City Municipal Corporation.

"Removal Action" shall mean all actions necessary to implement the non-time critical removal action remedy to be selected in the Action Memorandum for OU4 at the conclusion of the EE/CA for OU4 including post-removal site control.

"Removal Action Work Plan" shall mean the work plan to be developed in accordance with this Settlement Agreement for the implementation of the Removal Action for OU4. The Removal Action Work Plan will be incorporated into this Settlement Agreement and will be an enforceable part of this Settlement Agreement as are any modifications made thereto in accordance with this Settlement Agreement. In the event of a conflict between this Settlement and the Removal Action Work Plan, this Settlement Agreement shall control.

"Section" shall mean a portion of this Settlement Agreement identified by a Roman numeral.

"Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent and all appendices attached hereto (listed in Section XXXIII). In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.

"Silver Maple Claims" shall mean that portion of the Site comprising public land under the jurisdiction, custody, or control of the BLM, consisting of approximately 34 acres, near the eastern end of the Prospector Park in Park City, Utah, as depicted generally on the map attached as Appendix B.

"Site" shall mean the areas depicted generally as OU1, OU2, OU3 and OU4 on the map attached as Appendix A. The Site shall also include any areas in close proximity to the property previously described and necessary to accomplish the response action goals.

"State" or "State of Utah" shall mean the State of Utah by and through UDEQ and the State Natural Resource Trustee.

"State Natural Resource Trustee" shall mean the Natural Resource Trustee for the State of Utah.

"UDEQ" shall mean the State of Utah Department of Environmental Quality.

"UPCM" shall mean United Park City Mines Company.

"Waste Material" shall mean 1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14) and 2) any "pollutant or contaminant" under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33).

"Work" shall mean all activities Park City is required to perform under the EE/CA Work Plan, the Removal Action Work Plan or any other work plan developed and approved pursuant to this Settlement Agreement, except those activities required by Section XV (Retention of Records).

V. FINDINGS OF FACT

13. Mining operations undertaken by various entities within the Park City Mining District reportedly produced approximately 16 million tons of ore between 1875 and 1982. As a result of contamination resulting from such operations, EPA proposed to include the Richardson Flat Tailings Site on the National Priorities List (NPL) on June 24, 1988. Due to scoring issues and comments received during the public comment period, the Site was removed from NPL consideration in February 1991. The Site was re-proposed for the NPL on February 7, 1992. No action has been taken with regard to finalizing this proposed listing.

14. Since the proposed listing, the Site has been expanded and EPA has organized the Site into four operable units (OUs).

15. On July 7, 2005, EPA, with the concurrence of UDEQ, issued a Record of Decision (ROD) selecting the remedy for OU1, an area covering approximately 258 acres, which acreage includes a tailings impoundment covering approximately 160 acres of land immediately southeast of the junction of U.S. Highway 40 and Utah Highway 248 in Summit County, Utah. The selected remedy provided for removing contaminated sediments from nearby wetlands and covering contaminated sediments in diversion ditches. In addition, the remedy provided for the consolidation and capping of waste material in a repository, and imposing deed restrictions on future land and ground water use. The ROD was subsequently modified to allow for the removal of contaminated sediments in the diversion ditches. UPCM is implementing this remedy in accordance with the provisions of the OU1 Consent Decree.

16. EPA initially designated OU2 of the Site to address mine waste and tailings created by various entities that had been transported downstream of OU1 along the banks of Lower Silver Creek, from U.S. Highway 40 on the southern end to Interstate 80 on the northern end. UPCM agreed to perform a remedial investigation and feasibility study pursuant to the RI/FS AOC for OU2 executed in September 2009. Thereafter, EPA determined that OU2 should be expanded and reconfigured to include two additional operable units.

17. OU3 encompasses approximately 836 acres located east of Park City in areas along Silver Creek. OU3 includes the Middle Reach, and parcels comprising approximately 720 acres of land along the flood plain of Silver Creek that were formerly part of OU2 (all or portions of Summit County Assessor parcel numbers SS-28-A-1-X, SS-27-B-X, SS-28-A-X, SS-56, SS-56-A-1, SS-56-UP-X, SS-56-A, SS-64-A, SS-64-1000-UP-X, SS-65-A-3-1, SS-65-A-5, SS-65-A-3, SS-65-1, SS-65-A-6, and SS-88).

18. OU4 consists of the outfall from Prospector Drain, an underground pipe that runs in the vicinity of a subdivision of Park City known as Prospector Square and a municipal park named Prospector Park. The Prospector Drain collects shallow groundwater from areas in and around Prospector Park and Prospector Square. It then discharges a portion of this flow to a constructed treatment wetland and the remainder to a natural wetland area on or near the Silver Maple Claims. OU4 also includes any areas in close proximity to the Prospector Drain necessary to accomplish the response action goals. The Prospector Drain was constructed in conjunction with the development of the Prospector Park and Prospector Square area during the late 1970s when buildings were built atop tailings material.

19. Water samples from the Prospector Drain have indicated elevated concentrations of cadmium, lead, zinc, and arsenic. Surface water sampling in certain stretches of Silver Creek has identified concentrations of cadmium, lead, and zinc that exceed water quality standards.

20 Park City is a municipal corporation organized and existing under the laws of the State of Utah. Park City is the current owner of portions of the property through which the Prospector Drain runs and is the current operator of the outfall from the Prospector Drain.

21. On behalf of the United States, BLM manages the Silver Maple Claims.

22. Exposure to heavy metals including lead, cadmium and arsenic may cause adverse health effects in humans. Ecosystems near sources of heavy metals may also experience adverse effects including loss of biodiversity, changes in community composition, decreased growth and reproductive rates in plants and animals, and neurological effects in vertebrates.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

23. Based on the Findings of Fact set forth above, and the administrative record supporting this response action, EPA has determined that:

a. OU4 is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. The contamination found at OU4, as identified in the Findings of Fact above, includes "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

c. The conditions described in the Findings of Fact above constitute an actual and/or threatened "release" of hazardous substances from the facility as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

d. Park City is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

e. Park City is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a). Park City is an "owner" and "operator" of a facility as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2).

f. The actions required by this Settlement Agreement are necessary to protect the public health, welfare or the environment, are in the public interest, 42 U.S.C. § 9622(a), are consistent with CERCLA and the NCP, 42 U.S.C. §§ 9604(a)(1), 9622(a), and will expedite effective removal actions and minimize litigation, 42 U.S.C. § 9622(a).

g. EPA and BLM have determined that Park City is qualified to conduct the Work pursuant to this Settlement Agreement within the meaning of Section 104(a) of CERCLA, 42 U.S.C. § 9604(a), and will carry out the Work properly and promptly, in accordance with Sections 104(a) and 122(a) of CERCLA, 42 U.S.C. §§ 9604(a) and 9622(a), by complying with the terms of this Settlement Agreement.

VII. SETTLEMENT AGREEMENT AND ORDER

24. Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the administrative record for this Site, it is hereby ordered and agreed that the Parties shall comply with all provisions of this Settlement Agreement, including, but not limited to, all appendices to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

VIII. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR, AND ON-SCENE COORDINATOR

25. EE/CA

a. All Work conducted under this Settlement Agreement in performance of the EE/CA shall be under the direction and supervision of qualified personnel.

b Park City has notified EPA that it intends to use the following personnel in carrying out the EE/CA Work for OU4: Park City personnel under the direction of James Blankenau and URS Corporation under the direction of Donald Champenois, Senior Project Manager. EPA hereby approves Park City's selection of the foregoing contractors and personnel. Park City shall

notify EPA in writing of any changes or additions in the contractors or personnel used to carry out such Work, providing names, titles, and qualifications. EPA shall have the right to disapprove changes and additions to contractors or personnel in its discretion. If EPA disapproves in writing of any person's or contractor's technical qualifications, Park City shall notify EPA of the identity and qualifications of the replacement within thirty (30) days of the written notice. .

c. Park City has designated James Blankenau as its project coordinator who shall be responsible for administration of all actions by Park City required pursuant to this Settlement Agreement. EPA hereby approves Park City's selection of the foregoing project coordinator. To the greatest extent possible, the project coordinator shall be present on the Site or readily available during the Work. Park City shall have the right to change its project coordinator, subject to EPA's right to disapprove. Park City shall notify EPA thirty (30) days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notification. If EPA disapproves of the designated project coordinator, Park City shall retain a different project coordinator and shall notify EPA of that person's name, address, telephone number and qualifications within fifteen (15) days following EPA's disapproval.

26. Removal Action.

a. All Work conducted under this Settlement Agreement by Park City in performance of the Removal Action shall be under the direction and supervision of qualified personnel. Within sixty (60) days following issuance of the Action Memorandum for OU4, and before the OU4 Removal Action Work commences, Park City shall notify EPA in writing of the names, titles, and qualifications of the personnel, including contractors, subcontractors, consultants and laboratories to be used in carrying out such Work. With respect to any proposed contractor, Park City shall demonstrate that the proposed contractor has a quality system which complies with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," (American National Standards Institute, 1994, or more recent version), by submitting a copy of the proposed contractor's Quality Management Plan (QMP). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)," (EPA/240/B-01/002, March 2001 or subsequently issued guidance) or equivalent documentation as determined by EPA. The qualifications of the persons undertaking the Work for Park City shall be subject to EPA's review, for verification that such persons meet minimal technical background and experience requirements. This Settlement Agreement is contingent on Park City's demonstration to EPA's satisfaction that it is qualified to perform properly and promptly the Work. If EPA disapproves in writing of any person's technical qualifications, Park City shall notify EPA of the identity and qualifications of the replacement within thirty (30) days following the written notice. If EPA subsequently disapproves of the replacement, EPA reserves the right to terminate this Settlement Agreement, to conduct the removal, and to seek reimbursement of costs and penalties from Park City. Park City shall notify EPA in writing of any changes or additions in the personnel used to carry out the Work, providing their names, titles, and qualifications. EPA shall have the same

right to disapprove changes and additions to personnel as it has hereunder regarding the initial notification.

b. Within fifteen (15) days following issuance of the Action Memorandum for OU4, Park City shall designate a project coordinator who shall be responsible for administration of the OU4 Removal Action Work and shall submit to EPA the designated project coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, project coordinator shall be present on the Site or readily available during performance of the Work. EPA retains the right to disapprove of a designated project coordinator. If EPA disapproves of the designated project coordinator, Park City shall retain a different project coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within fifteen (15) days following EPA's disapproval. Receipt by Park City's project coordinator shall constitute receipt by Park City of any notice or communication from EPA relating to this Settlement Agreement.

27. EPA has designated Kathryn Hernandez of EPA's Ecosystems Protection and Remediation Office, Region 8, as its project coordinator. EPA will notify Park City of a change of EPA's designated project coordinator. Park City shall direct all submissions required by this Settlement Agreement regarding the Work to EPA's project coordinator at:

Kathryn Hernandez
Project Manager
Superfund Remedial Section, 8EPR-RA
US EPA, Region 8
1595 Wynkoop Street
Denver, Colorado 80202

28. EPA's project coordinator shall have the authority lawfully vested in a remedial project manager (RPM) and on-scene coordinator (OSC) by the NCP. In addition, EPA's project coordinator shall have the authority consistent with the NCP, to halt any Work required by this Settlement Agreement, and to take any necessary response action when she determines that conditions at OU4 may present an immediate endangerment to public health or welfare or the environment. The absence of the EPA project coordinator from the Site shall not be cause for the stoppage or delay of Work.

29. EPA is the party responsible for oversight of Park City's performance of the Work pursuant to this Settlement Agreement with opportunity for substantial and meaningful involvement by UDEQ. EPA shall arrange for a qualified person to assist in its oversight and review of both the conduct of the EE/CA as required by Section 104(a) of CERCLA, 42 U.S.C. § 9604(a). Such person shall have the authority to observe all Work and make inquiries in the absence of EPA, but not to modify the EE/CA Work Plan.

30. EPA and Park City shall have the right, subject to Paragraph 25 or 26, to change their designated project coordinator. Park City shall notify EPA thirty (30) days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notice. If EPA disapproves of the change in any designated project coordinator, Park City shall retain a different project coordinator and shall notify EPA of that person's name, address, telephone number and qualifications within fifteen (15) days following EPA's disapproval.

IX. EE/CA WORK TO BE PERFORMED

31. Park City shall conduct the Work activities related to performance of the OU4 EE/CA and the Removal Action in accordance with the provisions of this Settlement Agreement, the EE/CA Work Plan attached hereto as Appendix C, the Removal Action Work Plan to be developed hereunder, CERCLA, the NCP, and EPA guidance.

32. The Engineering Evaluation (EE) shall consist of collecting data to characterize conditions at OU4, determining the nature and extent of the contamination at or from OU4, and conducting treatability testing as necessary to evaluate the potential performance and cost of the treatment technologies that are being considered. The Cost Analysis (CA) shall determine and evaluate (based on treatability testing, where appropriate) alternatives for removal actions to prevent, mitigate or otherwise respond to or remedy the release or threatened release of hazardous substances, pollutants or contaminants at or from OU4. The alternatives evaluated must include but shall not be limited to the range of alternatives described in the NCP, and shall include removal actions that utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In evaluating the alternatives, Park City shall address the factors required to be taken into account by Section 121 of CERCLA, 42 U.S.C. § 9621, and Section 300.415 of the NCP, 40 C.F.R. § 300.415 and applicable guidance. Upon request by EPA, Park City shall submit in electronic form all portions of any plan, report or other deliverable required to be submitted pursuant to provisions of this Settlement Agreement.

33. Upon receipt of the draft EE/CA Report (which shall contain Park City's evaluation of the durability, reliability and effectiveness of any proposed Institutional Control) EPA will evaluate, as necessary, the estimates of risk to the public and environment that are expected to remain after a particular remedial alternative has been completed and will evaluate the durability, reliability and effectiveness of any proposed Institutional Controls. Upon completion of the EE/CA, and following a public comment period, EPA, and to the extent removal activities will occur on or affect the Silver Maple Claims, BLM, with Park City's input, will issue the Action Memorandum detailing the scope of removal actions, if any, required for OU4.

34. Modification of the EE/CA Work Plan

a. If Park City identifies a need for additional data, Park City shall submit a memorandum documenting the need for additional data to the EPA project coordinator within seven (7) days of

identification. EPA in its discretion will determine whether the additional data shall be collected by Park City and whether it will be incorporated into plans, reports and other deliverables.

b. In the event of unanticipated or changed circumstances at OU4, Park City shall notify the EPA project coordinator within twenty-four (24) hours following discovery of the unanticipated or changed circumstances. In the event EPA determines that the immediate threat or the unanticipated or changed circumstances warrant changes in the EE/CA Work Plan, EPA shall modify or amend the EE/CA Work Plan in writing accordingly in a manner not inconsistent with Park City's obligations under this Settlement Agreement. Park City shall perform the EE/CA Work Plan as modified or amended.

c. EPA may, after consultation with Park City, determine that in addition to tasks defined in the initially approved EE/CA Work Plan, other additional Work consistent with Section III (Statement of Purpose) may be necessary to accomplish the objectives of the EE/CA. Park City agrees to perform these actions in addition to those required by the initially approved EE/CA Work Plan, including any approved modifications, if EPA determines that such actions are necessary for a complete EE/CA.

d. Park City shall confirm its willingness to perform the additional Work in writing to EPA within seven (7) days of receipt of the EPA request. If Park City objects to any modification determined by EPA to be necessary pursuant to this Paragraph, Park City may seek dispute resolution pursuant to Section XIX (Dispute Resolution). The EE/CA Work Plan shall be modified in accordance with the final resolution of the dispute.

e. Park City shall complete the additional Work according to the standards, specifications, and schedule set forth or approved by EPA in a written modification to the EE/CA Work Plan or written EE/CA Work Plan supplement. Subject to Paragraph 98, EPA reserves the right to conduct the Work itself at any point, to seek reimbursement from Park City and/or to seek any other appropriate relief.

f. Nothing in this Paragraph shall be construed to limit EPA's or BLM's authority to require performance of further response actions at the Site.

35. Meetings. Park City shall make presentations at, and participate in, meetings with the Environmental Agencies at the request of EPA during the initiation, conduct, and completion of the EE/CA. In addition to discussion of the technical aspects of the EE/CA, topics will include anticipated problems or new issues. Meetings will be scheduled at EPA's discretion.

36. Progress Reports. In addition to the plans, reports and other deliverables set forth in this Settlement Agreement, Park City shall provide to the Environmental Agencies quarterly progress reports by the 15th day of each January, April, July and October following the Effective Date until completion of the EE/CA. At a minimum, with respect to the preceding quarter, these progress reports shall (1) describe the actions which have been taken by Park City to comply with

this Settlement Agreement during that quarter, (2) include all results of sampling and tests and all other data received by Park City, (3) describe Work planned for the next two quarters with schedules relating such Work to the overall project schedule for EE/CA completion, and (4) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays. These quarterly progress reports shall be delivered to each of the recipients designated in this Paragraph 36 electronically.

37. Quality Assurance. Park City shall assure that Work performed, samples taken and analyses conducted conform to the requirements of the EE/CA Work Plan, the QAPP and guidances identified therein. Park City will assure that field personnel used by Park City are properly trained in the use of field equipment and in chain of custody procedures. Park City shall only use laboratories which have a documented quality system that complies with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by EPA.

38. Sampling

a. All results of sampling, tests, modeling, or other data (including raw data) generated by Park City, or on its behalf, during the period that this Settlement Agreement is effective, shall be submitted to the Environmental Agencies in the next quarterly progress report. EPA will make available to Park City validated data generated by EPA unless it is exempt from disclosure by any federal or state law or regulation.

b. Park City shall verbally notify the Environmental Agencies at least thirty (30) days prior to conducting significant field events as described in the EE/CA Work Plan or Sampling and Analysis Plan. At EPA's verbal or written request, or the request of EPA's oversight contractor, Park City shall allow split or duplicate samples to be taken by the Environmental Agencies (and their authorized representatives) of any samples collected in implementing this Settlement Agreement. All split or duplicate samples shall be analyzed by the methods identified in the QAPP. Upon request, EPA shall allow Park City to take split or duplicative samples of any samples collected by EPA as part of EPA's oversight of Park City's performance of Work.

39. Park City shall submit to the Environmental Agencies two (2) copies of all plans, reports or other submissions required by this Section IX, the EE/CA Work Plan, and any other approved work plans. Upon request by EPA, Park City shall submit such documents in electronic form.

X. NATURAL RESOURCE INJURY ASSESSMENT AND RESTORATION ALTERNATIVES ANAYLSES TO BE PERFORMED

40. Park City shall prepare a Natural Resource Injury Assessment and Restoration Alternatives Analysis for OU4 in accordance with the NRDA Scope of Work attached hereto as Appendix D

concurrently with its development of the OU4 EE/CA and in coordination with the Natural Resource Trustees. Park City shall collect data in coordination with the Natural Resource Trustees to determine and quantify any actual or potential natural resource injuries at OU4. As provided in the NRDA Scope of Work attached hereto as Appendix D, these data collection activities shall be coordinated or integrated with data collection activities conducted by Park City in preparing its EE/CA to the extent practicable. Upon issuance of the final EE/CA Report and in accordance with the provisions of 43 C.F.R Part 11, Park City shall, in coordination with the Natural Resource Trustees, identify potential restoration projects that can be coordinated with the preferred removal action alternative identified for OU4. Such projects shall be evaluated consistent with 43 C.F.R §11.82. Restoration alternatives must be consistent with NRDA restoration under CERCLA and must be analyzed under the National Environmental Policy Act (NEPA) consistent with the procedures outlined in Appendix D. The Natural Resource Trustees intend to prepare NEPA documents and/or other documentation that may be required of them pursuant to 43 C.F.R. Part 11 and the NCP.

XI. PERFORMANCE OF REMOVAL

41. Park City shall implement the Action Memorandum for OU4 and perform all actions necessary for the performance of the Removal Action for OU4. The actions to be implemented will be identified in a separate Removal Action Work Plan for OU4 to be developed in accordance with this Settlement Agreement. The Action Memorandum shall be issued no sooner than sixty (60) days after approval of the final EE/CA Report for OU4.

42. Removal Action Work Plan and Implementation.

a. Within ninety (90) days after issuance of the Action Memorandum for OU4, Park City shall submit to EPA for approval a draft OU4 Removal Action Work Plan for performance of OU4 Removal Action. The draft Removal Action Work Plan shall provide a description of and an expeditious schedule for the actions required to implement the OU4 Removal Action and post- removal site control.

b. EPA may, after a reasonable opportunity for substantial and meaningful involvement by UDEQ, approve, disapprove, require revisions to, or modify the draft Removal Action Work Plan in whole or in part. EPA approval of Work activities affecting the Silver Maple Claims is subject to BLM concurrence. If EPA requires revisions, Park City shall submit a revised draft Removal Action Work Plan within thirty (30) days following receipt of EPA's notification of the required revisions. Park City shall implement the Removal Action Work Plan as approved in writing by EPA in accordance with the schedule approved by EPA. Once approved, or approved with modifications, the Removal Action Work Plan, the schedule, and any subsequent modifications shall be incorporated into and become fully enforceable against the Park City under this Settlement Agreement.

c. Park City shall not commence any Work except in conformance with the terms of this Settlement Agreement. Park City shall not commence implementation of the Removal Action Work Plan until receiving written EPA approval pursuant to Paragraph 42(b).

d. Post-Removal Site Control. On or around 180 days prior to completion of the Work to the extent practicable, Park City shall make an application to obtain a Utah Pollutant Discharge Elimination System Permit to address continuing discharges from Prospector Drain, if any are expected to remain following completion of the Work. The timing of any such application shall be set forth in the OU4 Removal Action Work Plan schedule. After Park City completes all necessary action to obtain the permit, the Parties anticipate that the State of Utah will then issue a Utah Pollutant Discharge Elimination System Permit to Park City to address any such continuing discharges from the Prospector Drain at OU4. The receipt and implementation of the permit shall constitute the post-removal site controls for OU4 consistent with Section 300.415 (l) of the NCP and OSWER Directive No. 9360.2-02.

43. Removal Health and Safety Plans. Within ninety (90) days after EPA issues the Action Memorandum for OU4, Park City shall submit for EPA review and comment a plan that ensures the protection of the public health and safety during performance of the OU4 Removal Action. The plan shall be prepared in accordance with EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). In addition, the plan shall comply with all currently applicable Occupational Safety and Health Administration (OSHA) regulations found at 29 C.F.R. Part 1910. If EPA determines that it is appropriate, the plan shall also include contingency planning. Park City shall incorporate all changes to the plan recommended by EPA and shall implement the plans during the pendency of the Removal Action.

44. Removal Quality Assurance and Sampling.

a. Park City shall prepare a Quality Assurance Project Plan (QAPP) in accordance with "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA/240/B-01/003, March 2001), and "EPA Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/240/R-02/009, December 2002).

b. All sampling and analyses performed pursuant to this Settlement Agreement shall conform to EPA direction, approval, and guidance regarding sampling, quality assurance/quality control (QA/QC), data validation, and chain of custody procedures. Park City shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance. Park City shall follow, as appropriate, "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures" (OSWER Directive No. 9360.4-01, April 1990), as guidance for QA/QC and sampling. Park City shall only use laboratories that have a documented Quality System that complies with ANSI/ASQC E-4 1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standards Institute, 1994 or more recent version), and "EPA Requirements for Quality

Management Plans (QA/R-2) (EPA/240/B-01/002, March 2001)," or equivalent documentation as determined by EPA. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP) as meeting the Quality System requirements.

c. Upon request by EPA, Park City shall have such a laboratory analyze samples submitted by EPA for QA monitoring. Park City shall provide to EPA the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

d. Upon request by EPA, Park City shall allow EPA or its authorized representatives to take split and/or duplicate samples. Park City shall notify EPA not less than thirty (30) days in advance of any sample collection activity, unless shorter notice is agreed to by EPA. EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow Park City to take split or duplicate samples of any samples it takes as part of its oversight of Park City's implementation of the Work.

45. Removal Reporting.

a. Park City shall submit a quarterly written progress report to the Environmental Agencies concerning its actions undertaken pursuant to this Settlement Agreement on every 15th day of January, April, July and October after the date of receipt of EPA's approval of its Removal Action Work Plan until termination of this Settlement Agreement, unless otherwise directed in writing by the EPA project coordinator. These reports shall describe all significant developments during the preceding reporting period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

b. Park City shall, at least thirty (30) days prior to the conveyance of any interest in real property at OU4, give written notice to the transferee that the property is subject to this Settlement Agreement and written notice to the Environmental Agencies of the proposed conveyance, including the name and address of the transferee. Park City also agrees to require that its successors comply with this notice requirement and Sections XII (Site Access and Institutional Controls) and XIV (Access to Information).

46. Final Removal Report. Within thirty (30) days after completion of all Work required under this Settlement Agreement, Park City shall submit for EPA review and approval a final report summarizing its actions taken to comply with this Settlement Agreement. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports." The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Settlement Agreement, a listing of

quantities and types of materials removed off-site or handled on-site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the Removal Action (*e.g.*, manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

"Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

47. Park City shall submit to the Environmental Agencies two (2) copies of all plans, reports or other submissions required by this Section XI and any approved work plan. Upon request by EPA, Park City shall submit such documents in electronic form.

48. Off-Site Shipments.

a. If and when it becomes necessary to send Waste Material to an off-site location for disposal, Park City shall, prior to any off-site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to the EPA project coordinator. However, this notification requirement shall not apply to any off-site shipments when the total volume of all such shipments will not exceed ten (10) cubic yards.

i. Park City shall include in the written notification the following information: 1) the name and location of the facility to which the Waste Material is to be shipped; 2) the type and quantity of the Waste Material to be shipped; 3) the expected schedule for the shipment of the Waste Material; and 4) the method of transportation. Park City shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

ii. The identity of the receiving facility and state will be determined by Park City following the award of the contract for the Removal Action. Park City shall provide the information required by Paragraph 48 (a) and (b) as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

b. Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-site location, Park City shall obtain EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Park City shall only send hazardous substances, pollutants, or contaminants from the Site to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

Consistent with EPA's previous determinations regarding the applicability of the off-site rule at the Site, the OU1 Repository shall not be considered an off-site location for the purposes of this Paragraph.

XII. SITE ACCESS AND INSTITUTIONAL CONTROLS

49. If any portion of the Site, or any other property where access is needed to implement this Settlement Agreement, is owned or controlled by Park City, Park City shall, commencing on the Effective Date, provide the Environmental Agencies and their representatives, including contractors, with access at all reasonable times to such property, for the purpose of conducting any activity related to this Settlement Agreement. To the extent practicable, EPA shall provide advance notice to Park City of the times EPA or its contractors plan to access Park City's property.

50. Where any action under this Settlement Agreement is to be performed in areas owned by or in possession of someone other than Park City, Park City shall use its best efforts to obtain all necessary access agreements within thirty (30) days after Park City becomes aware that such access is needed, or as otherwise specified in writing by the EPA project coordinator. Park City shall notify EPA if after using its best efforts it is unable to obtain such agreements. Park City shall describe in writing its efforts to obtain access. If Park City cannot obtain access agreements, EPA may either (i) obtain access for Park City or assist Park City in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as EPA deems appropriate; (ii) perform those tasks or activities with EPA contractors; or (iii) terminate the obligation under the Settlement Agreement that requires the access agreement in question. Park City shall reimburse EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XVIII (Payment of Response Costs and Assessment Costs). If EPA performs those tasks or activities with EPA contractors, Park City shall perform all other tasks or activities not requiring access to that property, and shall reimburse EPA for all costs incurred in performing such tasks or activities. Park City shall integrate the results of any such tasks or activities undertaken by EPA into its plans, reports and other deliverables.

51. BLM shall, with respect to the Silver Maple Claims, provide EPA, Park City, and the State, and their representatives, contractors, and subcontractors, with access at all reasonable times to this property to conduct any activity related to this Settlement Agreement.

52. Notwithstanding any provision of this Settlement Agreement, EPA and UDEQ retain all of their access authorities and rights, including enforcement authorities related thereto, under CERCLA, Resource Conservation and Recovery Act, 42 U.S.C. §6901 *et seq.* (RCRA), and any other applicable statutes or regulations.

XIII. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

53. After review of any plan, report or other item that is required to be submitted for approval pursuant to this Settlement Agreement, in a notice to Park City, EPA shall, after a reasonable opportunity for review and comment by UDEQ: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Park City modify the submission; or (e) any combination of the above. Any disapproval or modification shall be consistent with the purposes of this Settlement Agreement set forth in Section III. However, EPA shall not modify a submission without first providing Park City at least one notice of deficiency and an opportunity to cure within thirty (30) days, except where doing so would cause serious disruption to the Work, would delay an emergency response, or where previous submission(s) have been disapproved due to material defects. EPA approval of any Work on or affecting the Silver Maple Claims shall be subject to the concurrence of BLM.

54. In the event of approval, approval upon conditions, or modification by EPA, pursuant to subparagraphs 53 (a), (b), (c) or (e), Park City shall proceed to take any action required by the plan, report or other deliverable, as approved or modified by EPA subject only to its right to invoke the dispute resolution procedures set forth in Section XIX (Dispute Resolution) with respect to the modifications or conditions made by EPA. Following EPA approval or modification of a submission or portion thereof, Park City shall not thereafter alter or amend such submission or portion thereof unless directed by EPA. In the event that EPA modifies the submission to cure the deficiencies pursuant to subparagraph 53(c) and the submission had a material defect, EPA retains the right to seek stipulated penalties, as provided in Section XXI (Stipulated Penalties).

55. Resubmission.

a. Upon receipt of a notice of disapproval, Park City shall, within thirty (30) days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other deliverable for approval. Any stipulated penalties applicable to the submission, as provided in Section XXI, shall accrue during the 30 day period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 53 and 54.

b. Notwithstanding the receipt of a notice of disapproval, Park City shall proceed to take any action required by any non-deficient portion of the submission, unless otherwise directed by EPA. Implementation of any non-deficient portion of a submission shall not relieve Park City of any liability for stipulated penalties under Section XXI (Stipulated Penalties).

c. EE/CA.

(i) Park City shall not proceed further with any subsequent Work until receiving EPA approval, approval on condition or modification of the following deliverables: EE/CA Sampling and Analysis Plan, Preliminary Engineering Evaluation, Treatability Testing Work Plan if any, and Draft EE/CA Report. While awaiting EPA approval, approval on condition or modification of these deliverables, Park City shall proceed with all other tasks and activities which may be conducted independently of these deliverables, in accordance with the schedule set forth under this Settlement Agreement.

(ii) For all remaining deliverables not listed above in this subparagraph, Park City shall proceed with all subsequent Work including all tasks, activities and deliverables without awaiting EPA approval on the submitted deliverable. EPA reserves the right to stop Park City from proceeding further, either temporarily or permanently, on any task, activity or deliverable at any point during the EE/CA.

d. Removal Action. Designation of the Removal Action deliverables that require Respondents to halt any subsequent activities or tasks until receiving EPA approval, approval on condition or modification, shall be identified in the Removal Action Work Plan.

56. If EPA disapproves a resubmitted plan, report or other deliverable, or portion thereof, EPA may again direct Park City to correct the deficiencies. EPA shall also retain the right to modify or develop the plan, report or other deliverable. Park City shall implement any such plan, report, or deliverable as corrected, modified or developed by EPA, subject only to Park City's right to invoke the procedures set forth in Section XIX (Dispute Resolution).

57. If upon resubmission, a plan, report, or other deliverable is disapproved or modified by EPA due to a material defect, Park City shall be deemed to have failed to submit such plan, report, or other deliverable timely and adequately unless Park City invokes the dispute resolution procedures in accordance with Section XIX (Dispute Resolution) and EPA's action is revoked or substantially modified pursuant to a dispute resolution decision issued by EPA or superseded by an agreement reached pursuant to that Section. The provisions of Section XIX (Dispute Resolution) and Section XXI (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during dispute resolution. If EPA's disapproval or modification is not otherwise revoked, substantially modified or superseded as a result of a decision or agreement reached pursuant to the dispute resolution process set forth in Section XIX, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XXI.

58. In the event that EPA takes over some of the Work, but not the preparation of the Preliminary EE Report or the EE/CA Report, Park City shall incorporate and integrate information supplied by EPA into the final report.

59. All plans, reports, and other deliverables submitted to EPA under this Settlement Agreement shall, upon approval or modification by EPA, be incorporated into and enforceable under this Settlement Agreement. In the event EPA approves or modifies a portion of a plan, report, or other deliverable submitted to EPA under this Settlement Agreement, the approved or modified portion shall be incorporated into and enforceable under this Settlement Agreement. Attached hereto as Appendix E is a list of the major deliverables under this Settlement Agreement.

60. Neither failure of EPA to expressly approve or disapprove of Park City's submission within a specified time period, nor the absence of comments, shall be construed as approval by EPA. Regardless of whether EPA gives express approval for Park City's deliverables, Park City is responsible for preparing deliverables acceptable to EPA.

XIV. ACCESS TO INFORMATION

61. Upon request, Park City shall provide to the Environmental Agencies copies of all documents and information within its possession or control or that of its contractors or agents relating to activities at OU4, the Work, or to the implementation of this Settlement Agreement, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Park City shall also make available to EPA, for purposes of investigation, information gathering, or testimony, its employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work. With the exception of confidential or privileged information described in paragraphs 62 and 63 below, EPA shall make all such information, upon request, available to the Parties.

62. Park City may assert business confidentiality claims covering part or all of the documents or information submitted to the Environmental Agencies under this Settlement Agreement to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to EPA, or if EPA has notified Park City that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Park City. Park City may assert business confidentiality claims covering part or all of the documents or information submitted to the State under this Settlement Agreement to the extent permitted by and in accordance with Utah Government Records Access and Management Act, Utah Code § 63G-2-309, and where applicable, the Utah Environmental Quality Code, Utah Code § 19-1-306. If Park City provides the State a record that it believes should be protected, Park City must submit with the record a written claim of business confidentiality and a concise statement of reasons supporting the claim, or the public may be given access to such records without further notice to

Park City. Park City shall segregate and clearly identify all documents or information submitted under this Settlement Agreement for which Park City asserts business confidentiality claims.

63. Park City may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by applicable law. If Park City asserts such a privilege in lieu of providing documents, it shall provide the Environmental Agencies with the following: (i) the title of the document, record, or information; (ii) the date of the document, record, or information; (iii) the name and title of the author of the document, record, or information; (iv) the name and title of each addressee and recipient; (v) a general description of the contents of the document, record, or information; and (vi) the privilege asserted by Park City.

64. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around OU4.

65. In entering into this Settlement Agreement, Park City waives any objections to any data gathered, generated, or evaluated by the Environmental Agencies in the performance or oversight of the Work that has been verified according to the quality assurance/quality control (QA/QC) procedures required by the Settlement Agreement or any EPA-approved work plans or sampling and analysis plans. If Park City objects to any other data, Park City shall submit to EPA a report that specifically identifies and explains its objections, describes the acceptable uses of the data, if any, and identifies any limitations to the use of the data. The report must be submitted to EPA within fifteen (15) days of the quarterly progress report containing the data.

XV. RECORD RETENTION

66. During the pendency of this Settlement Agreement and for a minimum of ten (10) years after Park City's receipt of EPA's notification pursuant to Section XXXI (Notice of Completion of Work), Park City shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to OU4, regardless of any corporate retention policy to the contrary. Until ten (10) years after Park City's receipt of EPA's notification pursuant to Section XXXI (Notice of Completion of Work), Park City shall also instruct its contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to performance of the Work.

67. At the conclusion of this document retention period, Park City shall notify EPA and UDEQ at least ninety (90) days prior to the destruction of any such records or documents, and, upon request by EPA or UDEQ, Park City shall deliver any such records or documents to EPA or UDEQ. Park City may assert that certain documents, records and other information are

privileged under the attorney-client privilege or any other privilege recognized by federal law. If Park City such a privilege, it shall provide EPA or UDEQ with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a general description of the subject of the document, record, or information; and 6) the privilege asserted by Park City.

68. Park City hereby certifies individually that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding OU4 since notification of potential liability by EPA or the State and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

XVI. COMPLIANCE WITH OTHER LAWS

69. Park City shall perform all actions required pursuant to this Settlement Agreement in accordance with all applicable state and federal laws and regulations except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-site actions required pursuant to this Settlement Agreement shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements (ARARs) under federal environmental or state environmental or facility siting laws. Park City shall identify ARARs, subject to EPA approval, as part of the EE/CA. As provided in Section 121(e) of CERCLA, 42 U.S.C. §121(e), no permit shall be required for any portion of the Work conducted entirely on site, including without limitation any Utah Pollutant Discharge Elimination System Permit or National Pollutant Discharge Elimination Permit for the Prospector Drain. The Parties acknowledge that such permits may be required after the Work is completed. Accordingly, on or around 180 days prior to completion of the Work to the extent practicable, Park City shall make an application to obtain a Utah Pollutant Discharge Elimination System Permit to address continuing discharges from Prospector Drain, if any as provided in Paragraph 42.d.

XVII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

70. In the event of any action or occurrence resulting from performance of Work which causes or threatens a release of Waste Material from OU4 that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Park City shall immediately take all appropriate action. Park City shall take these actions in accordance with all applicable provisions of this Settlement Agreement, including, but not limited to, the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Park City shall also immediately notify the EPA project coordinator or, in the event of his/her unavailability, an on scene coordinator (OSC) or Laura Williams, Emergency Response Unit, EPA Region 8 Preparedness, Assessment and Emergency

Response Program, at 303-312-6108, and the Region 8 Emergency Response Spill Report Hotline, at 1-800-227-8914 of the incident or conditions at OU4. In the event that Park City fails to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Park City shall reimburse EPA all costs of the response action not inconsistent with the NCP pursuant to Section XVIII (Payment of Response Costs and Assessment Costs).

71. In addition, in the event that Park City becomes aware of or should have been aware of any release of a hazardous substance from OU4, Park City shall immediately notify the EPA project coordinator, an OSC or the Regional Duty Officer at Region 8 Emergency Response Spill Report Hotline, at 1-800-227-8914 and the National Response Center at (800) 424-8802. Park City shall submit a written report to EPA within seven (7) days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, *et seq*.

XVIII. PAYMENT OF RESPONSE COSTS AND ASSESSMENT COSTS

72. Payments of Future Response Costs.

a. Park City shall pay to EPA all Future Response Costs incurred by EPA not inconsistent with the NCP for OU4. On a periodic basis, EPA will send Park City a bill requiring payment that includes a Region 8 cost summary. Park City shall make all payments within thirty (30) days following receipt of each bill requiring payment, except as otherwise provided in Paragraph 74 of this Settlement Agreement. Payment shall be made to EPA by Electronic Funds Transfer (EFT) in accordance with current EFT procedures to be provided to Park City by EPA Region 8, and shall be accompanied by a statement identifying the name and address of the party making payment, the Site name, the EPA Region and Site/Spill ID Number 08-94, and the EPA docket number for this action.

b. At the time of payment, Park City shall send notice that its payment has been made to:

Finance Program Manager
Superfund Remedial Section, 8TMS-FMP
US EPA, Region 8
1595 Wynkoop Street
Denver, Colorado 80202

and to:

Maureen O'Reilly
Superfund Enforcement
U.S. EPA Region 8
8ENF-RC
1595 Wynkoop Street
Denver, CO 80202

and by email to acctsreceivable.cinwd@epa.gov, and to:

EPA Cincinnati Finance Office
26 Martin Luther King Drive
Cincinnati, Ohio 45268

c. The total amounts to be paid pursuant to subparagraph (a) above shall be deposited in the Richardson Flat Tailings Site Special Account within the EPA Hazardous Substance Superfund to be retained and used by EPA to conduct or finance response actions at or in connection with the Site or to be transferred by EPA to the EPA Hazardous Substance Superfund.

d. Park City shall pay to BLM all Future Response Costs incurred by BLM not inconsistent with the NCP and related to Work for OU4 on or affecting the Silver Maple Claims. On a periodic basis, BLM will send Park City a bill requiring payment that includes a cost summary. Park City shall make all payments within 30 days of receipt of each bill requiring payment, except as otherwise provided in Paragraph 74 of this Settlement Agreement. Payment shall be made to the Department of the Interior's (DOI) Central Hazardous Materials Fund (CHF) by automated clearing-house known as the Department of the Treasury's Automated Clearing House (ACH)/Remittance Express program as follows:

Receiver name:	Central Hazardous Materials Fund ALC 14010001
Receiver Tax ID Number:	53-0196949
Receiver address:	7401 West Mansfield Ave. Mailstop D-2777 Lakewood, CO 80235
Receiver bank:	Federal Reserve Bank New York, NY ABA # 051036706
Receiver ACH Account No.:	312024

Park City shall send notification of its payment referencing the amount of its payment, the Site name, and the time period for which reimbursement of response costs is being provided to the following individuals:

Courtney Hoover
Fund Manager
Central Hazardous Materials Fund
Department of the Interior
1849 C Street, N.W., Mail Stop 2342
Washington, D.C. 20240

and to:

Casey S. Padgett
Assistant Solicitor
Office of the Solicitor
1849 C Street, N.W., Mail Stop 5530
Washington, D.C. 20240

e. Park City shall pay to the Natural Resource Trustees all Future Assessment Costs incurred by the Natural Resource Trustees for OU4. On a periodic basis, the Federal Trustees and the State Natural Resource Trustee will send Park City a bill requiring payment that includes a cost summary. Park City shall make all payments within thirty (30) days following receipt of each bill requiring payment, except as otherwise provided in Paragraph 74 of this Settlement Agreement. Payment shall be made and notification of such payment shall be given in accordance with the instructions included with the bill.

73. If Park City does not pay Future Response Costs or Future Assessment Costs within thirty (30) days following its receipt of a bill, Park City shall pay Interest on the unpaid balance of such Future Response Costs or Future Assessment Costs. The Interest on unpaid Future Response Costs or Future Assessment Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. If EPA, BLM or the Natural Resource Trustees receives a partial payment, Interest shall accrue on any unpaid balance. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available by virtue of Park City's failure to make timely payments under this Section, including but not limited to, payments of stipulated penalties pursuant to Section XXI. Park City shall make all payments required by this Paragraph in the manner described in Paragraph 72.

74. a. Park City may contest payment of any Future Response Costs or Future Assessment Costs under Paragraph 72 if it determines that EPA, BLM or the Natural Resource Trustees have made an accounting error, made claims for future assessment costs inconsistent with 43 C.F.R Part 11, or if it believes EPA or BLM incurred excess costs as a direct result of an EPA or BLM action that was inconsistent with the NCP. Such objection shall be made in writing within thirty (30) days following receipt of the bill and must be sent to the appropriate agency. Any such

objection shall specifically identify the contested Future Response Costs or Future Assessment Costs and the basis for objection. In the event of an objection, Park City shall within the thirty (30) day period pay all uncontested Future Response Costs or Future Assessment Costs to the appropriate agency in the manner described in Paragraph 72.

b. Park City shall, at the time of submitting its objection in writing in accordance with subparagraph (a) above, establish an interest-bearing escrow account in a federally-insured bank duly chartered in the State of Utah and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs or Future Assessment Costs. Park City shall send to the appropriate agency a copy of the transmittal letter and check paying the uncontested Future Response Costs or Future Assessment Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, Park City shall initiate the dispute resolution procedures in Section XIX (Dispute Resolution). If the billing agency prevails in the dispute, within five (5) days of the resolution of the dispute, Park City shall pay the sums due (with accrued interest) to the billing agency in the manner described in Paragraph 72. If Park City prevails concerning any aspect of the contested costs, Park City shall pay that portion of the costs (plus associated accrued interest) for which it did not prevail to the billing agency in the manner described in Paragraph 72. Park City shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XIX (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Park City's obligation to reimburse the Federal Environmental Agencies for their Future Response Costs or Future Assessment Costs.

XIX. DISPUTE RESOLUTION

75. Unless otherwise expressly provided for in this Settlement Agreement, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes involving the Federal Environmental Agencies and Park City arising under this Settlement Agreement. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally.

76. a. If Park City objects to any EPA or BLM action taken or decision made with respect to Park City's obligations pursuant to this Settlement Agreement, including billings for Future Response Costs, it shall notify EPA and BLM in writing of its objection(s) within thirty (30) days following such action, unless the objection(s) has/have been resolved informally. The agency whose action is subject to dispute and Park City shall have thirty (30) days following the agencies' receipt of Park City's written objection(s) to resolve the dispute through formal negotiations (Negotiation Period). The Negotiation Period may be extended at the sole discretion of the agency whose action is subject to dispute.

b. Any agreement reached between EPA, BLM and Park City pursuant to this Section shall be in writing and shall, upon signature of the affected Parties, be incorporated into and become an enforceable part of this Settlement Agreement. If the agency whose action is subject to dispute and Park City are unable to reach an agreement within the Negotiation Period, an EPA management official at the Assistant Regional Administrator level or higher will issue a written decision on the dispute to Park City. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement. No obligations under this Settlement Agreement shall be suspended by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Park City shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs.

77. a. If Park City objects to any action taken or decision made with respect to Park City's obligations pursuant to this Settlement Agreement by the Natural Resource Trustees, including billings for Future Assessment Costs, it shall notify the Natural Resource Trustees in writing of its objection(s) within thirty (30) days following such action, unless the objection(s) has/have been resolved informally. The Natural Resource Trustees and Park City shall have thirty (30) days following receipt of Park City's written objection(s) to resolve the dispute through formal negotiations. The Negotiation Period may be extended at the sole discretion of the Natural Resource Trustees.

b. Any agreement reached between the Natural Resource Trustees and Park City pursuant to this Section shall be in writing and shall, upon signature of the affected parties, be incorporated into and become an enforceable part of this Settlement Agreement.

c. If the Natural Resource Trustees and Park City are unable to reach an agreement within the Negotiation Period with respect to disputes other than those pertaining to billings for Future Assessment Costs, the DOI Authorized Official will issue a written decision with the concurrence of the State Natural Resource Trustee on the dispute to Park City. The DOI Authorized Official's decision shall be incorporated into and become an enforceable part of this Settlement Agreement.

d. If the Federal Trustees and Park City are unable to reach an agreement within the Negotiation Period with respect to disputes pertaining to billings by the Federal Trustees for Future Assessment Costs, the DOI Authorized Official will issue a written decision on the dispute to Park City. The DOI Authorized Official's decision shall be incorporated into and become an enforceable part of this Settlement Agreement.

e. If the State Natural Resource Trustee and Park City are unable to reach an agreement within the Negotiation Period on any dispute pertaining to billings by the State Natural Resource Trustee for Future Assessment Costs, the State Natural Resource Trustee will issue a written decision on the dispute to Park City. The State Natural Resource Trustee's decision shall be incorporated into and become an enforceable part of this Settlement Agreement.

f. No obligations under this Settlement Agreement shall be suspended by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Park City shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with the written decision, whichever occurs.

78. The dispute resolution process set forth in Paragraph 79 below pertains to all disputes between EPA and BLM regarding all EE/CA and Removal Action activities affecting the Silver Maple Claims.

79. EPA and BLM will cooperate to the fullest extent possible to ensure that EE/CA activities and Removal Action activities on or affecting the Silver Maple Claims are performed and fully and completely implemented. In the event of a disagreement between EPA and BLM, these agencies agree to attempt to negotiate a mutually acceptable resolution of the issues to the fullest extent possible, as specified by the following provisions:

a. EPA and BLM have coordinated their respective CERCLA response authorities at the Silver Maple Claims portion of the Site. EPA plans to issue the action memorandum for OU4 under CERCLA authorities with the concurrence of BLM. If a dispute between EPA and BLM arises concerning any matter addressed under this Settlement Agreement, and the dispute cannot be resolved at the project manager/staff attorney level, the disputing party shall identify the dispute to the other party in writing. EPA and BLM shall have fourteen (14) days to resolve the dispute informally if possible.

b. At the end of the fourteen (14) day informal dispute period, if the dispute is not resolved, the disputing party shall again state the dispute in writing in a letter addressed to the BLM District Manager, and the Deputy Assistant Regional Administrator for Office of Enforcement, Compliance, and Environmental Justice (EPA Deputy ARA), EPA Region 8. The other party shall have seven (7) days to respond to this dispute letter. The BLM District Manager and the EPA Deputy ARA shall then have fourteen (14) days to resolve the dispute.

c. If, at the end of this fourteen (14) day period, the dispute cannot be resolved, all dispute letters and responses shall be forwarded to the Assistant Regional Administrator for Office of Enforcement, Compliance, and Environmental Justice (EPA ARA), EPA Region 8, and the BLM State Director. The EPA ARA and BLM State Director shall consult concerning the dispute and shall attempt to issue a joint decision regarding the issue within fourteen (14) days of receipt of the dispute letters. In the event the EPA ARA and BLM State Director are unable to issue a joint determination, the EPA ARA will issue a decision. The EPA ARA shall consider the BLM position in this matter in light of the BLM's responsibilities and authorities as the federal land management agency responsible for the management and stewardship of the Silver Maple Claims and the BLM's CERCLA response action authorities with regard to the Silver Maple Claims.

d. If unsatisfied with the decision of the EPA ARA, the BLM may initiate consultation with the responsible Assistant Section Chief, Environmental Enforcement Section, US Department of Justice, regarding the EPA ARA decision. The EPA ARA will participate in that consultation process and consider the results of that consultation before making a final decision that will represent the final remedial action decision. Any final decision reached pursuant to this Paragraph 79 shall not be subject to judicial review by any Party, including EPA and BLM. The time periods listed herein may be increased or decreased by mutual agreement of EPA and BLM.

XX. FORCE MAJEURE

80. Park City agrees to perform all Work within the time limits established under this Settlement Agreement, unless the performance is delayed by a *force majeure*. For purposes of this Settlement Agreement, a *force majeure* is defined as any event arising from causes beyond the control of Park City, or of any entity controlled by Park City, including but not limited to its contractors and subcontractors, which delays or prevents performance of any obligation under this Settlement Agreement despite Park City's best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

81. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Park City shall notify EPA verbally within forty-eight (48) hours following of the time when Park City first knew that the event might cause a delay. Within five (5) days thereafter, Park City shall provide to EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Park City's rationale for attributing such delay to a *force majeure* event if it intends to assert such a claim; and a statement as to whether, in the opinion of Park City, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude Park City from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

82. If EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Settlement Agreement that are affected by the *force majeure* event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, EPA will notify Park City in writing of its decision. If EPA agrees that the delay is attributable to a *force majeure* event, EPA will notify Park City in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

XXI. STIPULATED PENALTIES

83. Park City shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 84 and 85 for its failure to comply with the requirements of this Settlement Agreement specified below, unless excused under Section XX (Force Majeure). "Compliance" by Park City shall include completion of the Work in accordance with all applicable requirements of law, this Settlement Agreement, the EE/CA Work Plan, the Removal Action Work Plan and any plans or other documents approved by EPA pursuant to this Settlement Agreement, and within the specified time schedules established by and approved under this Settlement Agreement.

84. Stipulated Penalty Amounts.

a. The following stipulated penalties shall accrue per day against Park City for failure to submit or timely submit any of the following: the Preliminary EE Report, the EE/CA Report, the Removal Action Work Plan or the final removal report:

Penalty Per Violation Per Day	Period of Noncompliance
$ 250	1st through 14th day
$ 1,000	15th through 30th day
$ 37,500	31st day and beyond

b. The following stipulated penalties shall accrue per day against Park City for failure to submit timely or adequate reports pursuant to the EE/CA Work Plan or the Removal Action Work Plan where an extension for the report has not been granted in writing prior to the due date by the EPA project coordinator:

Penalty Per Violation Per Day	Period of Noncompliance
$ 100	1st through 14th day
$ 700	15th through 30th day
$ 5,000	31st day and beyond

c. The following stipulated penalties shall accrue per day against Park City for failure to meet any other requirement of this Settlement Agreement or to submit timely or adequate quarterly progress reports:

Penalty Per Violation Per Day	Period of Noncompliance
$ 100	1st through 14th day
$ 500	15th through 30th day
$ 2,000	31st day and beyond

85. In the event that EPA assumes performance of a portion or all of the Work required of Park City during performance of the EE/CA pursuant to Paragraph 98 (Work Takeover), Park City shall be liable for a stipulated penalty in the amount of $50,000. In the event that EPA assumes performance of a portion or all of the Work required by Park City during performance of the Removal Action, pursuant to Paragraph 98 (Work Takeover) of Section XXIII (Reservations of Rights by Environmental Agencies), Park City shall be liable for a stipulated penalty in the amount of $100,000.

86. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (i) with respect to a deficient submission under Sections IX (EE/CA Work to be Performed) or XI (Performance of Removal), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Park City of any deficiency; and (ii) with respect to a decision by the EPA management official designated in Paragraph 76 of Section XIX (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA management official issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

87. Following EPA's determination that Park City has failed to comply with a requirement of this Settlement Agreement, EPA may give Park City written notification of the failure and describe the noncompliance. EPA may send Park City a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Park City of a violation.

88. All penalties accruing under this Section shall be due and payable to EPA within thirty (30) days following Park City's receipt from EPA of a demand for payment of the penalties, unless Park City invokes the dispute resolution procedures in accordance with Section XIX (Dispute Resolution). All payments to EPA under this Section shall indicate that the payment is for stipulated penalties; shall reference the EPA Region, the Site/Spill ID Number 08-94, the EPA Docket Number for this Settlement Agreement, the name and address of the party making payment; shall be paid by certified or cashier's check(s) made payable to "EPA Hazardous Substances Superfund"; and shall be mailed to:

Regular mail:

Mellon Bank
EPA Region 8
Attn: Superfund Accounting
Post Office Box 360859
Pittsburgh, Pennsylvania 15251-6859

Express Mail:

Mellon Bank
3 Mellon Bank Center
ROOM#153-2713
Pittsburgh, Pennsylvania 15259

or other such address as EPA may designate in writing, or by wire transfer to:

ABA=021030004
TREAS NYC/CTR/
BNF=/AC-68011008

Wire transfers must be sent to the Federal Reserve Bank in New York.

Copies of check(s) paid pursuant to this Section, and any accompanying transmittal letter(s) shall be sent to:

Finance Program Manager, TMS-FMP
US EPA, Region 8
1595 Wynkoop Street
Denver, Colorado 80202

and to:

Maureen O'Reilly
Superfund Enforcement, ENF-RC
U.S. EPA Region 8
8ENF-RC
1595 Wynkoop Street
Denver, CO 80202

89 At the time of payment, Park City shall send notice that payment has been made by email to acctsreceivable.cinwd@epa.gov, and to:

EPA Cincinnati Finance Office
26 Martin Luther King Drive
Cincinnati, Ohio 45268

90. The payment of penalties shall not alter in any way Park City's obligation to complete performance of the Work required under this Settlement Agreement.

91. Subject to Paragraph 94, penalties shall continue to accrue as provided in Section XIX (Dispute Resolution) during any dispute resolution period, but need not be paid until fifteen (15) days after the dispute is resolved by agreement or by receipt of EPA's decision.

92. If Park City fails to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Park City shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 88.

93. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Park City's violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of willful violation of this Settlement Agreement or in the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 98 (Work Takeover). Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

94. Penalty Exception. Penalties shall apply, as set forth in this Section, in all circumstances related to the EE/CA and the Removal Action with the following specific exception. Within thirty (30) days following issuance of the OU4 Action Memorandum and notwithstanding any other provision contained in this Settlement Agreement, Park City may decide not to implement the Removal Action. Notwithstanding the foregoing, this Settlement Agreement shall remain in full force and effect. In the event Park City decides not to implement the Removal Action, EPA may choose, in its sole discretion, to amend the Action Memorandum and Park City shall have thirty (30) days following the amendment to decide whether to implement the Removal Action as set forth in the amended Action Memorandum. Alternatively, EPA may (i) bring a claim in federal district court to obtain an injunction for performance of the Removal Action; (ii) issue a unilateral administrative order pursuant to Section 106(a) of CERCLA, 42 U.S.C. §9606(a), against Park City and seek judicial enforcement; or (iii) perform the Removal Action and seek cost recovery against Park City. If Park City decides not to implement the Removal Action pursuant to this Paragraph it shall not be subject to stipulated penalties or statutory penalties for non-performance of the Removal Action unless and until the federal district court issues a final non-appealable order enforcing EPA's injunctive claim or the unilateral administrative order, or directing Park City to pay the response costs of the Removal Action. Any stipulated or statutory penalties assessed following resolution by the federal district court under this Paragraph shall not be retroactive, but may be assessed to address future or continuing failures to comply with the requirements of this Settlement Agreement as specified in Section XXI.

XXII. COVENANT NOT TO SUE BY ENVIRONMENTAL AGENCIES

95. a. Federal Environmental Agencies

1. In consideration of the actions that will be performed and the payments that will be made by Park City under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, EPA and BLM covenant not to sue or to take administrative action against Park City pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work and Future Response Costs. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon Park City's complete and satisfactory performance of all of its obligations under this Settlement Agreement, including, but not limited to, payment of Future Response Costs pursuant to Section XVIII. This covenant not to sue extends only to Park City and does not extend to any other person.

2. In consideration of the actions that will be performed and the payments that will be made by Park City under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, the Federal Trustees covenant not to sue or to take administrative action against Park City pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Natural Resource Injury Assessment and Restoration Alternatives Analysis and Future Assessment Costs. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon Park City 's complete and satisfactory performance of all of its obligations under this Settlement Agreement, including, but not limited to, payment of Future Assessment Costs pursuant to Section XVIII. This covenant not to sue extends only to Park City and does not extend to any other person

b. State Natural Resource Trustee

1. In consideration of the actions that will be performed and the payments that will be made by Park City under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, the State Natural Resource Trustee covenants not to sue or to take administrative action against Park City pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Natural Resource Injury Assessment and Restoration Alternatives Analysis and Future Assessment Costs. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon Park City's complete and satisfactory performance of all of its obligations under this Settlement Agreement, including, but not limited to, payment of Future Assessment Costs pursuant to Section XVIII. This covenant not to sue extends only to Park City and does not extend to any other person.

XXIII. RESERVATIONS OF RIGHTS BY ENVIRONMENTAL AGENCIES

96. Except as specifically provided in this Settlement Agreement, nothing in this Settlement Agreement shall limit the power and authority of the Environmental Agencies or the United

States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing in this Settlement Agreement shall prevent the Environmental Agencies from seeking legal or equitable relief to enforce the terms of this Settlement Agreement, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Park City in the future to perform additional activities pursuant to CERCLA or any other applicable law.

97. The covenant not to sue set forth in Section XXII above does not pertain to any matters other than those expressly identified therein. The Environmental Agencies reserve, and this Settlement Agreement is without prejudice to, all rights against Park City with respect to all other matters, including, but not limited to:

a. claims based on a failure by Park City to meet a requirement of this Settlement Agreement;

b. liability for costs not included within the definition of Future Response Costs or Future Assessment Costs;

c. liability for response costs incurred by but not reimbursed to the State;

d. liability for performance of response actions other than the Work;

e. criminal liability;

f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments, excluding performance of the Natural Resource Injury Assessment and Restoration Alternatives Analyses and Future Assessment Costs paid to the Natural Resource Trustees pursuant to this Settlement Agreement;

g. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of OU4; and

i. claims based upon a failure to implement the Removal Action subsequent to a period of thirty (30) days after EPA's issuance of the Action Memorandum for OU4 except as provided in Paragraph 94 (Penalty Exception).

98. Work Takeover. In the event EPA determines that Park City has ceased implementation of any portion of the Work, is seriously or repeatedly deficient or late in its performance of the Work, or is implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary (Work Takeover). EPA shall issue a written notice (Work Takeover Notice) to Park City before a Work Takeover. Any Work Takeover Notice will specify the

grounds upon which such notice was issued and will provide Park City a period of ten (10) days within which to remedy the circumstances. If, after expiration of the 10-day notice period, Park City has not remedied to EPA's satisfaction the circumstances giving rise to EPA's issuance of the Work Takeover Notice, EPA may at any time thereafter assume performance of all or any portion of the Work as EPA determines necessary. EPA shall notify Park City of a Work Takeover in writing. In the event, however, where an emergency situation or immediate threat to public health or welfare or the environment exists, EPA will not issue a Work Takeover Notice and may at any time assume performance of all or any portion of the Work as EPA determines necessary. Park City may invoke the procedures set forth in Section XIX (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by EPA or BLM in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that Park City is responsible for performing such Work shall pay pursuant to Section XVIII (Payment of Response Costs and Assessment Costs). Notwithstanding any other provision of this Settlement Agreement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XXIV. COVENANT NOT TO SUE BY PARK CITY

99. a. Park City covenants not to sue and agrees not to assert any claims or causes of action against the Environmental Agencies, or their contractors or employees, with respect to the Work, Future Response Costs, Future Assessment Costs or this Settlement Agreement, including, but not limited to:

i. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

ii. any claim arising out of response actions at or in connection with OU4, including any claim under the United States Constitution, the Utah Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

iii. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Work, Future Response Costs, or Future Assessment Costs.

b. Park City reserves and this Settlement Agreement is without prejudice to Park City's right to challenge EPA's remedy selection in the event Park City elects not to implement the Removal Action and EPA commences a judicial enforcement action.

100. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

XV. OTHER CLAIMS

101. By issuance of this Settlement Agreement, the Environmental Agencies assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Park City. No Environmental Agency shall be deemed a party to any contract entered into by Park City or its respective directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Settlement Agreement.

102. Except as expressly provided in Section XXII (Covenant Not to Sue by Federal Environmental Agencies) and Section XXIV (Covenant Not to Sue by Park City), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Park City or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607, or creates a cause of action on behalf of any person not a party to this Settlement Agreement.

103. No action or decision by EPA or any other Environmental Agency pursuant to this Settlement Agreement shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XVI. CONTRIBUTION

104. a. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and that Park City is, as of the Effective Date, entitled to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work, the Natural Resource Injury Assessment and Restoration Alternatives Analyses, Future Response Costs, and Future Assessment Costs.

b. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), pursuant to which Park City, as of the Effective Date, resolved its liability to the Federal Environmental Agencies for the Work, the Natural Resource Injury Assessment and Restoration Alternatives Analyses, Future Response Costs, and to the Natural Resource Trustees for Future Assessment Costs paid by Park City to the Natural Resource Trustees.

c. Nothing in this Settlement Agreement precludes the Environmental Agencies or Park City from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any persons not a party to this Settlement Agreement. Nothing in this Settlement Agreement diminishes the right of EPA, pursuant to Section 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)(3), to pursue any such persons to obtain additional response

costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

XXVII. INDEMNIFICATION

105. Park City shall indemnify, save and hold harmless the Environmental Agencies, their officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Park City, its officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Park City agrees to pay the Environmental Agencies all costs they incur, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the Environmental Agencies based on negligent or other wrongful acts or omissions of Park City, its officers, directors, employees, agents, contractors, subcontractors and any persons acting on its behalf or under its control, in carrying out activities pursuant to this Settlement Agreement. The Environmental Agencies shall not be held out as a party to any contract entered into by or on behalf of Park City in carrying out activities pursuant to this Settlement Agreement. Neither Park City nor any of its contractors shall be considered an agent of any Environmental Agency.

106. The appropriate Environmental Agency shall give Park City notice of any claim for which it plans to seek indemnification pursuant to this Section and shall consult with Park City prior to settling such claim.

107. Park City waives all claims against the Environmental Agencies for damages or reimbursement or for set-off of any payments made or to be made to any Environmental Agency arising from or on account of any contract, agreement, or arrangement between Park City and any person for performance of Work on or relating to OU4, including, but not limited to, claims on account of construction delays. In addition, Park City shall indemnify and hold harmless the Environmental Agencies with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Park City and any person for performance of Work on or relating to OU4, including, but not limited to, claims on account of construction delays.

XXVIII. INSURANCE

108. At least thirty (30) days prior to commencing any on-Site work under this Settlement Agreement, Park City shall secure, and shall maintain for the duration of this Settlement Agreement, comprehensive general liability insurance and automobile insurance with limits of one million dollars, combined single limit, naming EPA as an additional insured. Within the same time period, Park City shall provide EPA with certificates of such insurance and a copy of each insurance policy. Park City shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement

Agreement, Park City shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Park City in furtherance of this Settlement Agreement. If Park City demonstrates by evidence satisfactory to EPA that any of its contractors or subcontractors maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Park City need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXIX. FINANCIAL ASSURANCE

109. a. Within sixty (60) days following the Effective Date, Park City shall establish and maintain financial security for the benefit of EPA for the performance of the EE/CA for OU4 in the amount of $100,000.

b. Within sixty (60) days following EPA's issuance of the Action Memorandum for OU4, Park City shall establish and maintain financial security for the benefit of EPA for the performance of the Removal Action for OU4. The amount of financial security to be established and maintained by Park City shall be based upon the cost of implementing the Work set forth in the Removal Action Work Plan.

c. The financial security shall be in one or more of the following forms, in order to secure the full and final completion of Work:

i. a surety bond unconditionally guaranteeing payment and/or performance of the Work;

ii. one or more irrevocable letters of credit, payable to or at the direction of EPA, issued by financial institution(s) acceptable in all respects to EPA; or

iii. a trust fund administered by a trustee acceptable in all respects to EPA.

Park City shall provide a copy of its financial security mechanism, and any accompanying transmittal letter(s) to:

Daniela Golden
Financial Analyst, 8ENF-RC
Superfund Technical Enforcement Program
US EPA, Region 8
1595 Wynkoop Street
Denver, Colorado 80202

110. Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to EPA, determined in EPA's sole discretion and follow: (i) the

model draft letter of credit dated December 2004, see http://ww.epa.gov/compliance/resources/policies/cleanup/suprefund/fa-credit-mod.pfd; (ii) the model payment surety bond dated July 2005, see http://ww.epa.gov/compliance/resources/policies/cleanup/suprefund/fa-surety-paybond-mod.pfd; or (iii) the trust fund model see http://ww.epa.gov/compliance/resources/policies/cleanup/suprefund/fa-trust-mod.pfd. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Park City shall, within sixty (60) days of receipt of notice of EPA's determination, obtain and present to EPA for approval one of the other forms of financial assurance listed in Paragraph 109 above. If EPA notifies Park City that the anticipated cost of completing any Work as set forth in Paragraph 109, is more than originally estimated, then, within sixty (60) days of such notification, Park City shall obtain and present to EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. Park City's inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Settlement Agreement.

111. If, after the Effective Date, Park City can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 109 of this Section, Park City may, on any anniversary date of the Effective Date, reduce the amount of the financial security provided under this Section to the estimated cost of completing the remaining Work associated with such Work. Park City shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from EPA. In the event of a dispute, Park City may seek dispute resolution pursuant to Section XIX (Dispute Resolution). Park City may reduce the amount of security in accordance with EPA's written decision resolving the dispute.

112. Park City may change the form of financial assurance provided under this Section at any time, upon notice to and prior written approval by EPA, provided that EPA determines that the new form of assurance meets the requirements of this Section. In the event of a dispute, Park City may change the form of the financial assurance only in accordance with the written decision resolving the dispute.

XXX. MODIFICATIONS

113. The affected Parties may agree to modifications to any plan, schedule, work plan or statement of work in writing or verbally. Any verbal modification will be promptly memorialized in writing. Any requirements of this Settlement Agreement relating to the Work may be modified in writing by mutual agreement of Park City and EPA. Any other requirements may be modified in writing by mutual agreement of the affected Parties.

114. If Park City seeks permission to deviate from any approved work plan or schedule, Park City's project coordinator shall submit a written request to EPA for approval outlining the

proposed modification and its basis. Park City may not proceed with the requested deviation until receiving oral or written approval from the EPA project coordinator pursuant to Paragraph 113.

115. No informal advice, guidance, suggestion, or comment by the EPA project coordinator or other representatives of the Environmental Agencies regarding reports, plans, specifications, schedules, or any other writing submitted by Park City shall relieve Park City of its obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXXI. NOTICE OF COMPLETION OF WORK

116. When EPA determines, after EPA's review of a final report that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including payment of Future Response Costs, or record retention, EPA will provide written notice to Park City. If EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, EPA will notify Park City, provide a list of the deficiencies, and require Park City to modify the Removal Action Work Plan if appropriate in order to correct such deficiencies. Park City shall implement the modified and approved Removal Action Work Plan and shall submit a modified final report in accordance with the EPA notice. Failure by Park City to implement the approved modified Work Plan shall be a violation of this Settlement Agreement.

XXXII. ADMINISTRATIVE RECORD

117. EPA will determine the contents of the administrative record file. Park City shall submit to EPA documents developed during the course of the EE/CA upon which selection of any response action will be based. Upon request of EPA, Park City shall provide to EPA copies of plans, task memoranda for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports and other reports. Upon request of EPA, Park City shall additionally submit any previous studies conducted under state, local or other federal authorities relating to the EE/CA, and all communications between Park City and state, local or other federal authorities concerning the EE/CA. A copy of the administrative record file shall be maintained in the current information repository located at the Park City Library, 1255 Park Avenue, Park City, Utah.

XXXIII. INTEGRATION/APPENDICES/NOTICES

118. This Settlement Agreement and its appendices constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The Parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those

expressly contained in this Settlement Agreement. The following appendices are attached to and incorporated into this Settlement Agreement:

Appendix A: Site Map
Appendix B: Silver Maple Claims Map
Appendix C: EE/CA Work Plan for OU4
Appendix D: NRDA Scope of Work for OU4
Appendix E: Major Deliverables

Unless otherwise provided in this Settlement Agreement, when written notice is required to be given or a report or other document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses set forth below, unless those individuals or their successors give notice of a change to the other Parties in writing. All notices and submissions shall be considered effective upon receipt, unless otherwise provided.

As to EPA:

Kathryn Hernandez
Remedial Project Manager
Superfund Remedial Section, 8EPR-RA
US EPA, Region 8,
1595 Wynkoop Street
Denver, Colorado 80202
Phone: (303) 312-6101
Email: hernandez.kathryn@epa.gov

Andrea Madigan
US EPA, Region 8
1595 Wynkoop Street
Denver, Colorado 80202
Phone: (303) 312-6904
Email: madigan.andrea@epa.gov

As to UDEQ:

Mo Slam
UDEQ Project Manager
DERR P.O. Box 144840
Salt Lake City, Utah 84114-4840
Phone: (801) 536-4179
Email: mslam@utah.gov

Kari Lundeen
Permits, Compliance, and TMDL Branch
Division of Water Quality
Utah Department of Environmental Quality
P.O. Box 144870
Salt Lake City, Utah 84114-4870
Phone - 801-536-4335
Email - klundeen@utah.gov

Sandra K. Allen
Assistant Attorney General
P.O. Box 144873
Salt Lake City, Utah 84114-0873
Phone: (801) 536-4122
Email: skallen@utah.gov

As to the State Natural Resource Trustee

Brad T Johnson
State Natural Resource Trustee
195 North 1950 West
4th Floor
P.O. Box 144810
Salt Lake City, UT 84114-4810
Phone: (801) 536-4402
Email: btjohnson@utah.gov

Sandra K. Allen
Assistant Attorney General
DERR P.O. Box 144840
Salt Lake City, Utah 84114-4840
Phone: (801) 536-4122
Email: skallen@utah.gov

Mo Slam
State Trustee Technical Advisor
For Richardson Flat OU4
DERR P.O. Box 144840
Salt Lake City, Utah 84114-4840
Phone: (801) 536-4179
Email: mslam@utah.gov

Kent Sorenson
State Trustee Technical Advisor
For Richardson Flat OU4
Habitat Restoration Biologist
DWR-NRO
515 East 5300 South
Ogden, UT 84401
Phone: (801) 643-8342
Email: kentsorenson@utah.gov

As to BLM or FWS:

Casey S. Padgett
Branch of Environmental Compliance and Response
Office of the Solicitor, Department of the Interior
1849 C Street, N.W., Mail Stop 5530
Washington, D.C. 20240
Phone: (202) 208-4125
Email: casey.padgett@sol.doi.gov

Dana Jacobsen
Office of the Solicitor, Department of the Interior
755 Parfet, Suite 151
Lakewood, CO 80215
Phone: (303) 231-5353, ext 336
Email: dana.jacobsen@sol.doi.gov

Tim Ingwell
BLM Utah State Office
440 West 200 South,
Suite 500
Salt Lake City, UT 84101
Phone: (801) 539-4088
Email: tingwell@blm.gov

John Isanhart
U.S. Fish and Wildlife Service Region 6
Utah Ecological Services Field Office
2369 West Orton Circle, Suite 50
West Valley City, UT 84119 Phone: (801) 975-3330
Email: John_Isanhart@fws.gov

Chris Cline
U.S. Fish and Wildlife Service Region 6
Utah Ecological Services Field Office
2369 West Orton Circle, Suite 50
West Valley City, UT 84119
Phone: (801) 975-3330
Email: Chris_Cline@fws.gov

As to Park City:

Joan Card
Environmental Regulatory Affairs Manager
Park City Municipal Corporation
445 Marsac Ave
P.O. Box 1480
Park City, Utah 84060-1480
Phone: (435) 615-5153
Email: joan.card@parkcity.org

Polly Jessen
Kaplan Kirsch & Rockwell LLP
1675 Broadway, Suite 2300
Denver, CO 80202
Phone: (303) 825-7000
Email: pjessen@kaplankirsch.com

XXXIV. EFFECTIVE DATE

119. This Settlement Agreement shall be effective the day upon which it has been fully executed by all Parties.

The undersigned representatives certify that they are fully authorized to enter into the terms and conditions of this Settlement Agreement and to bind the Party they represent to this document.

Agreed this 10th day of January, 2013.

PARK CITY MUNICIPAL CORPORATION:

By: Dana Williams

ATTEST:

City Recorder's Office

APPROVED AS TO FORM;

City Attorney's Office

The undersigned representatives certify that they are fully authorized to enter into the terms and conditions of this Settlement Agreement and to bind the Party they represent to this document.

Agreed this 22 day of JANUARY, 2013.

BY:

Amanda Smith, Executive Director
Utah Department of Environmental Quality

BY:

Brad T Johnson
State of Utah Natural Resource Trustee

It is so ORDERED AND AGREED this _____ day of _____, 2013.

BY:

_____ DATE: 2/8/13

Laura B. Brown
Associate Solicitor, Division of Land and Water Resources
Office of the Solicitor, Department of the Interior
(on behalf of the Bureau of Land Management)

BY:

_____ DATE: 2-12-13

Noreen Walsh
Regional Director, Mountain-Prairie Region
(on behalf of the U.S. Fish and Wildlife Service)

It is so ORDERED AND AGREED this 19th day of February, 2013.

BY:

Andrea Madigan DATE: 2/19/13

Andrea Madigan, Supervisory Attorney
Legal Enforcement Program
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

BY:

Kelcey Land DATE: 2/14/13

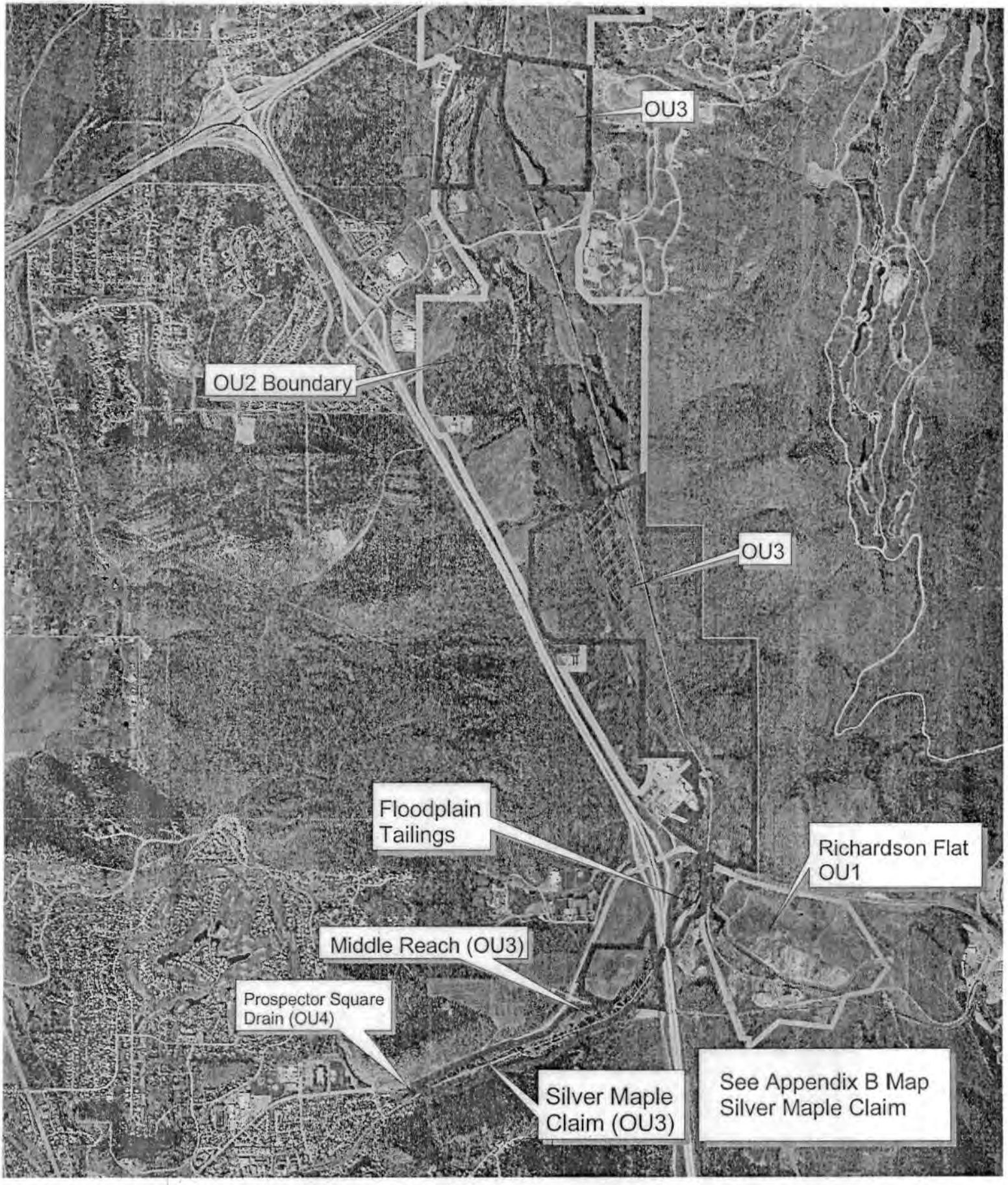
Kelcey Land, Director
RCRA & CERCLA Technical Enforcement Program
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

BY:

DATE: 2/13/13

Bill Murray, Director
Superfund Remedial Response Program
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

EFFECTIVE DATE: 2/19/2013



- Prospector Square Drain (OU4)
- LSC-MR (OU3) Boundary
- LSC Boundary (OU2)
- Richardson Flat (OU1) Study Area
- LSC OU3 Tailings
- Middle Reach OU3 Tailings

0 0.4 0.8 1.2 1.6 2 Miles

N

Appendix A

Map Date
02-24-2012

BLM Sliver Maple Parcel

SILVER MAPLE CLAIM
APPENDIX B

APPENDIX C
ENGINEERING EVALUATION / COST ANALYSIS
OU4 (PROSPECTOR DRAIN)

Park City, Utah

WORK PLAN

Prepared for

Park City Municipal Corporation

December 2012

Prepared by

URS Corporation
756 East Winchester, Suite 400
Salt Lake City, Utah 84107

TABLE OF CONTENTS

1.0 INTRODUCTION 1-1

1.1 Background 1-1

1.2 Purpose and Objectives 1-1

1.3 Work Plan Organization 1-1

2.0 SITE BACKGROUND AND SETTING 2-1

2.1 Previous Site Investigations 2-1

2.2 Environmental Setting 2-4

2.2.1 Geology and Terrain 2-4

2.2.2 Soils 2-5

2.2.3 Climate 2-5

2.2.4 Surface Water 2-5

2.2.5 Groundwater 2-5

2.2.6 Wetlands and Ecological Systems 2-6

2.2.7 Ecological Systems 2-6

3.0 PROJECT PLANNING 3-1

3.1 Scope 3-1

3.2 Identification of Data Gaps 3-1

3.3 Development of Data Quality Objectives for Performance of the EE/CA 3-1

3.3.1 Field Data Quality Objectives 3-2

3.3.2 Laboratory Data Quality Objectives 3-3

3.4 Community Relations 3-3

4.0 SITE CHARACTERIZATION TASK 4-1

4.1 Develop SAP (FSP and QAPP) and HASP 4-1

4.2 Field Investigation 4-1

4.2.1 Proposed Piezometer Installation 4-2

4.2.2 Proposed Data Collection and Sampling 4-3

4.3 Sample Analysis and Data Validation 4-3

4.4 Data Evaluation 4-4

4.5 Streamlined Human Health and Ecological Risk Evaluation 4-5

4.6 Site Characterization Reporting 4-6

4.6.1 Interim Site Characterization Summary Reports 4-6

4.6.2 Site Characterization Report 4-6

5.0 ENGINEERING EVALUATION/COST ANALYSIS REPORT TASKS 5-1

5.1 Identification of Remedial Action Objectives 5-1

5.2 Identification of Potential Removal Action Technologies 5-1
5.2.1 Passive Technologies to Reduce Impacted Flows to Prospector Drain 5-1
5.2.2 Active Technologies to Reduce Contaminant Discharges from Prospector Drain 5-1
5.3 Treatability Study – Bench Scale or Pilot Testing 5-2
5.4 Identification and Evaluation of Removal Action Alternatives 5-2
5.5 Comparative Analysis of Removal Action Alternatives 5-3
5.6 Preferred Removal Action Alternative 5-3
5.7 EE/CA Report 5-3
6.0 REFERENCES 6-1

LIST OF FIGURES

Figure 1-1 Vicinity and Site Location Map
Figure 2-1 Historic Groundwater Monitoring and Water Quality Data
Figure 2-2 Recent Prospector Drain Related Flow Data
Figure 4-1 Proposed Groundwater Monitoring Network and Sample Point Locations

LIST OF TABLES

Table 3-1 Established Screening Values for Heavy Metals
Table 4-1 Summary of Analytes per Method in Groundwater Samples (Total and Dissolved) and Soil Samples

ATTACHMENTS

Attachment A Prospector Drain Presumed Design Drawings
Attachment B Piezometer Specifications

LIST OF ACRONYMS AND ABBREVIATIONS

amsl	above mean sea level
ANL	Argonne National Laboratory, Environmental Research Division
ARARs	Applicable or Relevant and Appropriate Requirements
bgs	below ground surface
BLM	U.S. Bureau of Land Management
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
cfs	cubic feet per second
CLP	Contract Laboratory Program
CSM	Conceptual Site Model
CWA	Clean Water Act
DERR	State of Utah Division of Environmental Response and Remediation
DOI	U.S. Department of the Interior
DQO	data quality objectives
EDDs	electronic data deliverables
EE	Engineering Evaluation
EE/CA	Engineering Evaluation / Cost Analysis
EPA	U.S. Environmental Protection Agency
ERA	Ecological Risk Assessment
ERM	Environmental Resources Management
°F	degrees Fahrenheit
FWS	U.S. Fish and Wildlife Service
gpm	gallons per minute
HHRA	Human Health Risk Assessment
HASP	Health and Safety Plan
IC	Institutional Control
IDW	investigation derived waste
LUC	Land Use Control
MCL	maximum contaminant level
MDL	method detection limit
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
mL	milliliter
NCP	National Oil and Hazardous Substances Contingency Plan
ND	non-detect
NPL	National Priorities List

NRDA	Natural Resource Damage Assessment
O&M	Operation & Maintenance
OU3	Richardson Flat Tailings Site Operational Unit 3
OU4	Richardson Flat Tailings Site Operational Unit 4 (Prospector Drain)
Park City	Park City Municipal Corporation
PRGs	preliminary remediation goals
PRPs	Potentially Responsible Parties
QA	Quality Assurance
QC	Quality Control
QAPP	Quality Assurance Project Plan
RAA	Restoration Alternative Analysis
RAOs	remedial action objectives
RI/FS	Remedial Investigation / Feasibility Study
ROD	Record of Decision
SAP	Sampling and Analysis Plan
SETTLEMENT AGREEMENT	Administrative Settlement Agreement and Order on Consent for EE/CA Investigation and Removal Action
SOW	Scope of Work
TMDL	Total Maximum Daily Load
UDNR	Utah Department of Natural Resources, Division of Water Rights
UDEQ	State of Utah Department of Environmental Quality
URS	URS Corporation
UPCM	United Park City Mines Company
USCWG	Upper Silver Creek Watershed Group
VCP	State of Utah Voluntary Cleanup Program

1.0 INTRODUCTION

1.1 Background

This Work Plan is part of and incorporated into the Administrative Settlement Agreement and Order on Consent for EE/CA Investigation and Removal Action (Settlement Agreement) for the Richardson Flat Tailings Site in Park City, Utah. Unless otherwise expressly provided in this Work Plan, the terms used herein that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or such regulations. Whenever terms defined in the Settlement Agreement are used in this Work Plan, they shall have the same meaning assigned to them in the Settlement Agreement.

1.2 Purpose and Objectives

The purpose of this Engineering Evaluation / Cost Analysis (EE/CA) Work Plan is to present the site-specific approach Park City will employ to complete the site investigation and removal action development and analysis required for an EE/CA at OU4. The goals of an EE/CA are to gather sufficient data to allow for the development of removal action alternatives, to analyze the effectiveness of those alternatives, and to ultimately recommend a preferred alternative.

Park City is responsible for conducting the OU4 EE/CA as outlined in the Settlement Agreement.

In conjunction with the EE/CA, Park City is preparing a separate natural resources Assessment Plan and performing an assessment to develop an Injury Assessment and Restoration Alternatives Analysis as required under the Settlement Agreement. Such assessment and analysis is structured in a manner that is in coordination with and consistent with the provisions of the EE/CA prepared for OU4. Park City expects to use EE/CA data and analysis and to supplement that data with additional data collection performed concurrently with the work performed under this Work Plan to support the Injury Assessment and Restoration Alternatives Analysis.

1.3 Work Plan Organization

The EE/CA will present the results of the investigation activities conducted at the site, and evaluate non-time critical removal action alternatives to meet water quality objectives. The report will be organized into the following sections:

- Section 1 – Introduction: This section summarizes the historical background, presents the basis for the work, and outlines the remaining sections.
- Section 2 – Site Background and Setting: This section provides an overview of previous site investigations and the environmental setting.
- Section 3 – Project Planning: this section identifies data gaps and develops data quality objectives for performance of the EE/CA.

- Section 4 – Site Characterization Task: This section summarizes the approach Park City will use to characterize OU4, including the sampling required to fill data gaps and how the data will be analyzed and presented in the Site Characterization Report.
- Section 5 – Engineering Evaluation / Cost Analysis: This section summarizes the approach Park City will use to develop and analyze removal alternatives for the site, as well as presents some potential passive and active technologies to be considered in developing those alternatives.

  The EE/CA report will be submitted to EPA in a phased approach starting with a Preliminary Engineering Evaluation (EE), which will summarize findings from the Site Characterization Report, and will present all of the evaluations performed up to and including the identification and evaluation of passive and active removal action alternatives necessary to meet the Remedial Action Objectives.

  Once the EPA has approved the Preliminary EE, the Draft EE/CA will be prepared and submitted to EPA, which will add a comparative analysis of removal actions and identification of the preferred removal action alternatives.

  Once the EPA has reviewed and commented on the Draft EE/CA, the Final EE/CA will be prepared, which will incorporate response to review comments, and the Final EE/CA will be submitted to the EPA.
- Section 6 – References: This section presents the references used in the document.

2.0 SITE BACKGROUND AND SETTING

Prospector Square is located adjacent to Silver Creek on the northeast side of Park City. Silver Creek flows through the historic district, then heads northeast along the south border of Prospector Square, continues through the wetlands downstream, passing U.S. Highway 40, and then at Keetley Junction turns north-northwest toward Interstate Highway 80. Figure 1-1, the Site Location and Vicinity Map, shows the general location of Prospector Square.

The Prospector Drain collects groundwater from the northeastern portion of Prospector Square and conveys it to a junction box where a portion is directed to an engineered wetland known as the Biocell for treatment and the remainder is directed into an underground bypass pipe (see Attachment A for the presumed design drawings of the drain). Both effluents discharge into the wetlands on or near the Silver Maple Claims. OU4 is the Prospector Drain and those areas within its zone of influence necessary to accomplish the response action goals.

2.1 Previous Site Investigations

Prospector Square has undergone several investigations beginning in 1975 with the groundwater and foundation study conducted to support economic development of the northeast subdivision of the former tailing area. The following sections summarize previous investigations and studies in chronological order.

***Report of Groundwater and Foundation Investigation, Northeastern Portion of Prospector Square Development Site, Park City, Utah* (Dames & Moore, 1975)**

Dames & Moore conducted a groundwater and geotechnical investigation in 1975 to support economic development of the former tailings pond. The purpose of the study was to develop overall drainage, foundation and earthwork recommendations for utilization in planning the layout of the development and design of structures within the former tailings area.

The field work generally consisted of site reconnaissance and excavation of 10 test pits for geotechnical samples and lithologic descriptions. Based on the test pits results, it was determined that the former mine tailings, now capped, were found to cover most of the site at thicknesses ranging from 0.5 to 3 feet thick.

The former tailings consisted of loose, light grayish-brown to gray, fine to medium-grained silty sand. Underlying the former tailings was a compressible, fine grained, cohesive soil (clayey silt) extending down to approximately 3-8 feet bgs. Underlining the cohesive soils was a granular material ranging from medium-dense to dense, silty sand and sandy gravel with cobbles.

Groundwater was encountered ranging from near the surface in the eastern portions of the site to greater than 10 feet bgs in the western portions of the site. The shallow groundwater in the northeastern portion of the site was attributed in the study to the impedance of groundwater flow, caused partially by the constriction/accumulation of alluvium in the valley to the northeast and by the flattening of the Silver Creek stream gradient east of the site.

The general recommendations of the Dames & Moore Investigation are:

1. Silver Creek should be deepened along the southeastern and eastern portion of the site and to the northeast of the site to decrease flooding potential.
2. A subsurface drain (Prospector Drain) should be installed to help lower the water table within the northeastern portion of the Prospector Square tailings area.
3. The irrigation diversion channel (Pace Homer Ditch) near the northeastern portion of the site should be lined.
4. Foundations should not be established upon the compressible cohesive soil or tailings.

***Hydrology of the Prospector Square Area, Summit County, Utah* (USGS, 1989)**

The United States Geological Survey (USGS), in 1988, conducted a study to characterize the former mine tailings, surface water system, stream sediment, and groundwater system in the vicinity of the former Silver Creek tailings site in the Prospector Square area. The results of the study were used by the EPA and the Utah Department of Health to determine if selected constituents are being released from the former tailings to Silver Creek and unconsolidated valley-fill aquifers.

The general findings of the study are:

1. The unconsolidated valley fill consists of poorly sorted mixtures of clay, silt, sand, and gravel with intermittent layers of clay. The hydraulic conductivity of the unconsolidated valley-fill aquifer ranged from 1 to 14 feet per day.
2. The generalized groundwater gradient was northeast towards the Pace Homer ditch. The depths to groundwater, shown in Figure 2-1, range from approximately 43 feet bgs on the west side of Prospector Square to 7 ft bgs on the east side of Prospector Square.
3. Pump tests indicated that groundwater located in unconsolidated valley-fill deposits did not move towards a pumped municipal well completed in consolidated rock aquifer.
4. Silver Creek surface water samples collected downstream of the former tailings site indicated that concentrations of dissolved and particulate cadmium, manganese, and zinc were greater than background levels.
5. Groundwater samples collected from six wells overlaid by tailings indicated that concentrations of dissolved and particulate cadmium, manganese, and zinc were greater than background levels.

Figure 2-1 presents the results from this study for the analytes that have a current screening value being used throughout Upper and Lower Silver Creek (Table 3-1). Many of the results in Figure 2-1 are elevated above those screening values. The method detection limits for cadmium and lead in groundwater are not low enough to determine if concentrations are above the screening value for some samples. Future water quality sampling must use EPA laboratory analytical method SW846-6020A to ensure proper detection limits are achieved.

***Hydrology and Snowmelt Simulation of Snyderville Basin, Park City, and Adjacent Areas, Summit County, Utah – Technical Publication No.115* (USGS, 1998)**

The USGS, in cooperation with the Utah Department of Natural Resources, Division of Water Rights, Park City, Summit County, and the Weber Basin Water Conservancy District, completed this study to assess the quantity and quality of the water resources of the Snyderville Basin and surrounding areas in Summit County. The study found that the consolidated rocks and unconsolidated valley fill in the study area form a heterogeneous, anisotropic, interconnected groundwater system.

During this study, observations from Silver Creek indicated that large stream flows were not generated by the spring snowmelt runoff in the spring of 1995. The lack of large snowmelt runoff within Upper Silver Creek suggests that most of the runoff from snowmelt seeps into the subsurface before reaching the Silver Creek steam channel. Silver Creek peak stream flows in 1995 occurred in March and reached a maximum flow of approximately 140 cfs.

***Geology of Snyderville Basin, Western Summit County, Utah, and its Relation to Groundwater Conditions* (UGS, 2001)**

The Utah Geologic Society (UGS) performed a study in 2001. The purpose of this study was to provide geologic information important in assessing groundwater resources and siting of wells within the Snyderville basin. The study found that groundwater does not readily flow across shale beds, and hydraulic communication only occurs between wells and springs in the same stratigraphic groundwater compartments.

The lack of hydraulic communication among the shallow wells (completed in the valley fill aquifer) and the municipal wells (completed within the consolidated rock aquifer) within the Park Meadows and Prospector Square area indicates that little to no hydraulic communication is likely occurring between the valley-fill and the consolidated rock aquifer (Woodside Shale Formation) underlying Prospector Square.

***QuickSite® Investigation for the Upper Silver Creek Watershed, Utah: Regional Analysis and Recommendations* (ANL, 2004)**

The objectives of this study were to characterize the hydrology of the Upper Silver Creek watershed; characterize the hydrologic system with respect to surface water and groundwater; develop conceptual models of the hydrologic systems for four CERCLIS sites (Marsac Mill, Prospector Square, Silver Maple Claims, and Richardson Flats; and use the models to reduce uncertainties, focus investigations and guide decisions on regulation and environmental remediation. The study identified a series of uncertainties and recommended additional monitoring, aquifer tests, and groundwater flow modeling.

Groundwater Flow Modeling for Prospector Square and Silver Maple Claims Tailings Sites (Kolm and Yan, 2005)

In 2005, the BLM conducted initial groundwater flow modeling for the Prospector Square and Silver Maple Claims (SMC) sites. The objective of the work was to quantitatively understand the site-specific groundwater flow system and evaluate the potential impacts of lining Silver Creek, lining the Pace Homer Ditch, and blocking flow through the Prospector Drain. The modeling indicated that groundwater from the Park City Formation (bedrock aquifer flow) is contributing to the alluvial aquifer below the Prospector Square pipe discharge and may affect groundwater flow into the southern boundary of Prospector Square-Silver Maple Claims. The modeling also indicated that: 1) lining Silver Creek would affect water levels and flow paths throughout the area; 2) lining the Pace Homer Ditch would affect the water levels and flow paths throughout the part of Silver Maple Claims evaluated; and 3) blocking flow through the Prospector Drain would affect water levels throughout the area.

***Data-collection Activities by the US Geological Survey (USGS) in support of groundwater flow modeling being conducted by the Bureau of Land Management (BLM) near the Prospector Square Tailings Site, Park City, Utah* (USGS, 2005)**

The objectives of this study were to better define boundary conditions within the Prospector Square area to support the Bureau of Land Management (BLM) groundwater flow model. Generally, the study found a downward vertical gradient existing within the western and middle portions of the Prospector Square area, resulting in Silver Creek losing surface water to groundwater in this area. Silver Creek is likely gaining water within the eastern portions of the site from groundwater seepage.

2.2 Environmental Setting

The following subsections provide a description of the general environmental setting within and in the vicinity of Prospector Square. The description includes: geology and terrain, soils, climate, surface water, and groundwater.

2.2.1 Geology and Terrain

Prospector Square, located in Park City, Utah, is bounded by Silver Creek on the south and east, Kearns Boulevard and Park Meadows on the north, and Bonanza Boulevard on the west (see Vicinity and Site Location Map, Figure 1-1).

The terrain generally slopes north to northeast towards Park Meadows from Bonanza Boulevard. Elevations range from approximately 6820 feet above mean sea level (amsl) to approximately 6720 feet amsl at the northern portion of Park Meadows.

The consolidated strata under Prospector Square have undergone reverse faulting during the Sevier Orogeny, approximately 66 to 100 million years ago, resulting in structural deformation (folding and fracturing) of the consolidated rock.

Prospector Square is underlain by a thick layer (100+ feet) of unconsolidated glacial outwash and alluvium valley fill. The valley fill consists of poorly sorted gravels and cobbles intermixed with

silt, and clay. Consolidated rocks beneath the valley fill of Prospector Square primarily consist of Triassic Age Woodside Shale.

2.2.2 Soils

Prospector Square has been developed as residential and commercial property. The area is covered by imported topsoil and asphalt and concrete pavement. Underneath this cap lies the original tailings pond or other mine waste. Park City manages a strict soil ordinance as an institutional control that was initially enacted in 1988 and enhanced in 2003.

Below this imported surface material, a thin (0 to 3 feet) and discontinuous layer of mine tailings exists. Below the mine tailings, the native soils consist of clay, silt, sand, gravel, and cobbles.

2.2.3 Climate

The Prospector Square site receives 16-22 inches of average annual precipitation and has 80 to 100 days in the annual frost-free period (USDA, 2002). The average monthly temperature highs range from 37°F to 87°F with extremes ranging from over 100°F in summer months to below 0°F in winter months.

2.2.4 Surface Water

The Park City area is generally divided by a slight topographic ridge (Cemetery Hill) located southwest of Park meadows and west of Prospector Square. Drainage separates to the east towards Silver Creek, and north towards McLeod Creek.

Prospector Square is almost entirely drained by Silver Creek, a tributary to the Weber River (see Figure 1-1). The headwater to Silver Creek is located in Empire Canyon and flows north to the west side of Prospector Square, where a slight topographic ridge diverts Silver Creek to the east.

The headwater of McLeod Creek is located in Thaynes Canyon and flows northwestward becoming a tributary to East Canyon Creek. McLeod Creek drains the north western portion of Park City.

2.2.5 Groundwater

Prospector Square is a shallow basin that slopes gently to the northeast. Groundwater is present at 5-35 feet bgs. The groundwater gradient / flow direction likely mirrors the topographical gradient (approximately 0.015 feet per foot) to the east-northeast towards Park Meadows, the Pace-Homer Ditch, and the Prospector Drain.

Prospector Drain intercepts a portion of this groundwater. A portion of the groundwater collected by the Prospector Drain is conveyed to the Biocell and treated before discharging on or near OU3. The remaining portion is conveyed, via an underground bypass pipe, directly to an adjacent discharge point on or near OU3.

Figure 2-2 shows measured flows from Prospector Drain, and downstream flows at the Biocell and the bypass to Silver Creek.

Generally, a downward vertical gradient exists within the western and middle portions of the Prospector Square area, resulting in Silver Creek losing surface water to groundwater in this area (USGS, 2005). Silver Creek may gain water in the eastern portions of the site from groundwater seepage.

The unconsolidated valley-fill aquifer is likely greater than 100 feet thick within the Prospector Square area, and underlain by a consolidated rock aquifer comprised mainly of Woodside Shale formation and, to a lesser extent, the lower Thaynes Formation. The hydraulic conductivity of the unconsolidated valley-fill aquifer ranges from 1 to 14 feet per day (USGS, 1989). Impacts from past mining activities are likely limited to the uppermost portion of the shallow unconfined aquifer (USGS, 1989).

2.2.6 Wetlands and Ecological Systems

Prospector Drain discharge enters wetlands downstream on or near the Silver Maple Claims that is a part of OU3.

2.2.7 Ecological Systems

Prospector Drain discharges to the wetlands downstream on or near the Silver Maple Claims that is a part of OU3.

3.0 PROJECT PLANNING

3.1 Scope

The purpose of project planning is to define the type, extent and level of investigation and analysis necessary to characterize the site sufficiently to adequately inform the evaluation of appropriate removal actions for the Prospector Drain and to ensure that the removal action alternatives developed comply with the Remedial Action Objectives (RAOs).

The scope must identify any data gaps in existing available information, as well as define the data quality objectives (DQOs) required for the project. A Conceptual Site Model will be submitted to the EPA for comment and approval with or prior to the Sampling and Analysis Plan submittal.

3.2 Identification of Data Gaps

A better understanding of the area of groundwater influenced by the Prospector Drain is needed in order to evaluate the incremental contribution of its discharge to downstream contamination. Data gaps identified in this understanding include:

- Zone of influence of the Prospector Drain.
- Groundwater seasonal variations within the zone of influence of the Prospector Drain.
- Sources of water contributing to the shallow groundwater within the zone of influence of the Prospector Drain.
- The surface water and groundwater zone of influence on the Prospector Drain.
- Contributions from Silver Creek, Pace-Homer Ditch, the Kearns Boulevard swale, or other surface water sources into the Prospector Drain.
- Baseline and seasonal water quality data for Silver Creek at several locations upstream of the Prospector Drain outfall, to establish the background values for constituents of concern (arsenic, cadmium, lead and zinc).
- Seasonal water quality data for the Prospector Drain and Biocell outfalls for the primary constituents of concern.
- Seasonal water quality data for the groundwater influence on the Prospector Drain.
- Seasonal water quality data in Silver Creek and the shallow groundwater in the zone of influence to the Prospector Drain.

3.3 Development of Data Quality Objectives for Performance of the EE/CA

DQOs define the type, quantity and quality of data necessary to meet the project objectives (EPA, 2000). There are several project-specific DQOs for OU4:

- Determine the area of groundwater influence on the Prospector Drain.
- Determine the time-variable contaminant loads and concentrations from the Prospector Drain and Biocell discharges to the downstream Silver Maple Claims.
- Determine the surface water and shallow groundwater sources and contributions to contaminant loading in the reaches of Silver Creek that influence the Prospector Drain. This includes the area of Silver Creek adjacent to the Silver Creek Tailings area that has an influence on the Prospector Drain.
- Determine the influence of the Pace Homer Ditch on the Prospector Drain.

Table 3-1 presents the established screening values used to evaluate surface water and groundwater at the Site.

Table 3-1: Established Screening Values for Heavy Metals

Heavy Metal	Soil[1]	Sediment[1]	Surface Water	Shallow Groundwater	Groundwater
Pb	500 mg/kg	310 mg/kg	2.50 µg/L	2.50 µg/L	15.0 µg/L
As	100 mg/kg		150 µg/L	150 µg/L	10.0 µg/L
Zn			118 µg/L	118 µg/L	5000* µg/L
Cd			0.250 µg/L	0.250 µg/L	5.0 µg/L
NOTES	Soil samples: • 0-2" surface • 2-12" sub-surface	Use sediment values when sampling in irrigation ditches, drainages and any wetlands.	Dissolved concentrations. Hardness value in LSC surface water = 100 mg/L	Dissolved concentrations.	Drinking Water MCLs. *Zinc does not have an MCL but a secondary MCL

[1] *Soil values are included for informational purposes to assist in evaluation of passive removal alternatives. Sediment values are included for the sake of completeness.*

Note: Water samples shall be analyzed by analytical method SW846-6020A to meet the required detection limits for cadmium. Soil/sediment samples can be analyzed by analytical method SW846-6010C.

3.3.1 Field Data Quality Objectives

The objectives of the site characterization are to physically and chemically define the zone of influence contributing to groundwater discharges from the Prospector Drain and Biocell outfalls and to gather data sufficient to inform the evaluation of appropriate removal alternatives for the Prospector Drain.

A second objective is to generate adequate data to conduct a streamlined risk evaluation for OU4.

3.3.2 Laboratory Data Quality Objectives

Laboratory DQOs will be developed and presented in the Site QAPP after the Effective Date of the Settlement Agreement. All samples will be analyzed by a certified laboratory. All analytical data will be validated by a URS chemist, per the project QAPP, prior to reporting results, to ensure that all data is defensible and useful for the intended purpose. In addition, EPA will be sent electronic data deliverables and Level 4 QA/QC packages directly from the laboratory to allow EPA to confirm data validation for all sample results.

3.4 Community Relations

EPA will develop and implement community relations activities for OU4. Park City shall, as requested by EPA, assist EPA by providing information regarding the Site and/or OU4 history, participating in public meetings, developing graphics, placing newspaper ads developed by EPA, or distributing fact sheets developed by EPA.

4.0 SITE CHARACTERIZATION TASK

Site characterization is necessary in order to evaluate appropriate removal alternatives for the Prospector Drain. A Site Characterization Report will be submitted to EPA for comment and approval prior to evaluating removal action alternatives for Prospector Drain.

4.1 Develop SAP (FSP and QAPP) and HASP

The Sampling and Analysis Plan (SAP) (comprised of the Field Sampling Plan [FSP] and Quality Assurance Project Plan [QAPP]) and the HASP will be prepared within ninety days after the Effective Date of the Settlement Agreement. The SAP and HASP will be submitted to and approved by EPA prior to field mobilization.

4.2 Field Investigation

The proposed field investigation at the site consists of a combination of surface water sampling, groundwater sampling, and soil sampling, as summarized below.

- Quarterly collection of chemical and physical (stream flow and elevation) data from four surface water sample locations, as shown on Figure 4-1.
- Monthly collection of surface water level data from 7 measuring points in Silver Creek and 4 measuring points in the Pace Homer Ditch, as shown on Figure 4-1. If there is no flow at the lower surface water monitoring location, the sample will be collected and flow monitored above it at Wyatt Earp Drive.
- Surface water chemical sampling and associated flow measurement will be conducted quarterly, with surface water elevation measurements collected monthly.
- Installation of a network of at least 24 piezometers (shown in Figure 4-1), followed by data collection from the piezometers. Should the initial water level data collected from these piezometers indicate that the groundwater zone influencing the Prospector Drain has not been delineated, additional piezometers will be installed.
- Soil sample profile logs and analytical chemistry composite soil samples will be collected at four foot intervals and, in general, from different stratigraphic units, to the maximum depth of the piezometer (anticipated to be 25 feet).
- Surface water collection from the outfalls for the Biocell and the Prospector Drain bypass.

The intent of the investigation is to gain a better understanding of the local groundwater regime adjacent to the Prospector Drain (see Attachment A for a presumed design drawing of the Prospector Drain), to define the hydrogeologic area that the drain captures, and to gather data to support evaluation of removal efforts that may be implemented to reduce metal concentrations in the outfall from the Biocell and Prospector Drain Bypass.

4.2.1 Proposed Piezometer Installation

Piezometers will be installed in the area of the Prospector Park subdivisions to better understand the local groundwater in the area of the Prospector Drain. According to available data (USGS, 1989, pages 51-56), depth to groundwater across Prospector Square varies from near 40 feet bgs in the western portion to less than 5 feet bgs in the eastern portion. Installation of piezometers in areas where depth to groundwater is less than 30 feet bgs can be accomplished using a direct-push drill rig. Installation of piezometers in areas where depth to groundwater is greater than 30 feet bgs will require use of a different drill rig, likely sonic, due to the depth and geology.

Therefore, since mobilization of two different drill rigs would be required in order to install piezometers across the length of Prospector Square, piezometers will be installed in phases, if necessary, with the shallower to medium depth piezometers (less than 30 feet in depth) installed and surveyed first.

It is anticipated that installation of the shallow to medium depth piezometers, using the direct-push drill rig, will provide sufficient data to delineate the shallow groundwater influence on the Prospector Drain. However, should initial groundwater depth data collected after installation of these piezometers indicate that delineation has not occurred, Park City will work with EPA and UDEQ to identify any additional deeper locations required and will then mobilize the sonic drill rig to install those piezometers.

A total of twenty-four (24) shallow to medium depth 1-inch diameter piezometers will be installed as shown on Figure 4-1, using 3-inch diameter direct-push rods to the depth required to reach the groundwater table, in accordance with the specifications included in Attachment B. The piezometers will be installed in the late spring/early summer, during a period of high groundwater levels. All piezometers will be screened across the water table, taking into consideration its seasonal fluctuation. Three (3) of the piezometers will be hand augered in the bottom of Silver Creek to a maximum depth of 5 feet below ground surface (bgs) to better understand base flow within the coarse grain sediments of Silver Creek during low water periods (Figure 4-1). Elevation measurement points will be established along Silver Creek and the Pace Homer Ditch to facilitate an understanding of water levels. Surface water elevations will be monitored on a monthly basis at the time of piezometer elevation monitoring.

Soil profiles will be continuously logged during installation of the piezometers and composite soil samples will be collected at four foot intervals (and, in general, from different statigraphic units) to the maximum depth (anticipated to be 30 feet) of each boring.

Piezometers and surface water measuring points will be surveyed by a Utah Licensed surveyor. Investigation-derived waste (soil cuttings and purge water) will be appropriately handled for disposal.

4.2.2 Proposed Data Collection and Sampling

During the installation of the 24 shallow to medium-depth, and any additional piezometers, soil profiles will be collected with soil liner sleeves that will be cut open to fully view and log the soil profile and also allow for composite soil samples to be collected at four foot intervals (and, in general, from different stratigraphic units), per the project SAP.

Data collection and sampling will be conducted for a period of one year to physically and chemically characterize surface water, OU4 discharge water (comprised of the discharge at the outfalls from the Biocell and the Prospector Drain Bypass), and groundwater in order to evaluate the sources of flow for OU4 and their contaminant loading throughout the year. Surface water flow will be monitored at the four surface water locations shown on Figure 4-1 to aid in the estimation of the relative contribution of the Drain to downgradient areas.

Water levels will be measured monthly at all piezometers and surface water elevation measuring points shown on Figure 4-1 in accordance with the project SAP. This data will be collected and evaluated monthly in order to determine the temporal effect on the shallow groundwater at OU4 and determine the area contributing flows to Prospector Drain.

Quarterly groundwater, surface water, and discharge water sampling will be conducted at the piezometers and sample points shown on Figure 4-1 in accordance with the project SAP. Samples will be collected and analyzed for metals as described below, and water quality parameters (temperature, dissolved oxygen, pH, hardness, conductivity, total suspended solids, nitrates, and alkalinity) will be recorded for each sample location. Surface water flow measurements will be collected quarterly at all surface water sampling locations. This data, in conjunction with the results of the metals analyses described below, will be used to evaluate contaminant loading to the Prospector Drain and from OU4, comprised of discharges from the Prospector Drain Bypass and Biocell outfalls and facilitate the site characterization effort. This sampling will be conducted quarterly, as opposed to monthly, because contaminant concentrations are not expected to fluctuate significantly on a monthly basis.

4.3 Sample Analysis and Data Validation

Laboratory preparation and analytical methods will be consistent throughout the project to facilitate comparison with agency split samples. All detection limits will be sufficient to compare to the screening levels shown in Table 3-1. Groundwater and surface water samples will be analyzed for the heavy metals (dissolved and total concentrations) shown in Table 4-1 by method SW846-6020A, in accordance with the project QAPP. These analytes are the metals for which there is a Utah aquatic wildlife water quality standard in the Utah Administrative Code R317-2-7. The samples will also be analyzed for temperature, dissolved oxygen, pH, hardness, conductivity, total suspended solids, nitrates, and alkalinity.

Soil samples collected during piezometer installation will be analyzed for the heavy metals shown in Table 4-1 (with the exception of mercury) by method SW846-6010C. All soil sample analysis will be conducted in accordance with the project QAPP.

Table 4-1: Summary of Analytes per Method in Groundwater Samples (Total and Dissolved) and Soil Samples		
Analyte	**Preparation Method**	**Analytical Method**
Aluminum	SW846 3050 or 3051 for soil 3010A for groundwater	SW846 6010C for soil 6020A for groundwater
Arsenic		
Barium		
Cadmium		
Calcium		
Chromium		
Copper		
Lead		
Magnesium		
Nickel		
Selenium		
Silver		
Zinc		
Additional Groundwater Analyte (Total and Dissolved)		
Mercury	SW846 7470A	SW846 7470A

All sample results will be provided to the EPA in electronic data deliverable format with corresponding Level 4 Quality Assurance/Quality Control package from the laboratory. EPA will perform data validation in accordance with the project QAPP to ensure data usability according to the data quality objectives.

4.4 Data Evaluation

Monthly groundwater level data will be evaluated to determine depth to groundwater and groundwater elevations at each sample point. This data will be contoured on a monthly basis and be used to create a monthly potentiometric groundwater surface, and to determine the extent of groundwater contributing to OU4 (comprised of the Biocell and Prospector Drain Bypass outfalls).

Quarterly groundwater sample data will be tabulated and used to evaluate overall and seasonal contaminant loading to the OU4 discharge points and the groundwater and surface water in the immediate vicinity of the Prospector Drain. Sample results will be statistically analyzed (to the extent possible based on statistical method), to determine any spatial or temporal trends. Surface water and Prospector Drain metals loadings will be calculated based on the quarterly sampling data. In addition all sample results will be compared to the established Silver Creek screening values presented in Table 3-1.

Composite soil samples collected during piezometer installation will be analyzed by analytical chemistry at a four foot interval (and, in general, from different stratigraphic units). Sample

profile results will be plotted on a site map to facilitate evaluation of passive and active removal actions for OU4.

The relative contribution of the Prospector Drain to down gradient areas will be estimated from a mass loading analysis using Drain, surface water and groundwater data. The Drain and surface water mass loading calculations will use Biocell, bypass, and surface water concentration and flow data collected during the site characterization. The groundwater mass loading calculation will use concentration and gradient data collected during the site characterization, in conjunction with the a hydraulic conductivity value estimated from the 1989 USGS Prospector Square area hydrology study (USGS, 1989).

4.5 Streamlined Human Health and Ecological Risk Evaluation

Park City recognizes that the quality of the water discharging from OU4 via the Biocell and the Prospector Drain bypass requires the actions being initiated with this EE/CA Work Plan. Park City will conduct a Streamlined Risk Evaluation for the water discharging from OU4 as outlined in EPA's *Guidance on Conducting Non-Time Critical Removal Actions Under CERCLA* (EPA, 1993).

As stated in the EE/CA guidance manual, the Streamlined Risk Evaluation (SRE) should focus on the specific problem that the removal action is intended to address. Therefore, since the removal action is intended to address the contamination discharging from the Prospector Drain, it is appropriate that the Streamlined Risk Evaluation only addresses that contamination. However, it is important that the SRE provide information on contaminant source(s) and locations, environmental media impacted, degree of site contamination (quantity, concentrations), potential receptors, and valuable natural resources. The Conceptual Model will be used to integrate the above information for the Prospector Drain and will be based on information gathered during the Site Characterization.

The objectives of the SRE are to:

- Identify principal chemicals of concern and exposure pathways from the Prospector Drain bypass and Biocell outfalls,
- Identify risks to human health and the environment from Prospector Drain in the absence of a removal action that should be addressed.

To address the objectives, the SRE may use analytical data collected from the Biocell and bypass during the site characterization and compare the appropriate values to the screening levels established for heavy metals in Table 3-1 to provide an assessment of the environmental and health effects associated with the OU4 outfalls.

The results of the Streamlined Risk Evaluation and the results of the mass loading analysis, conducted as part of data evaluation, will be discussed in the risk section of the EE/CA to inform a risk management decision.

4.6 Site Characterization Reporting

Site characterization reporting comprises the interim reports required to provide EPA and UDEQ a timely notification of site activities, as well as the more comprehensive Site Characterization Report that will be the basis for the subsequent Preliminary EE Report. Both of these site characterization reporting tasks are described below.

4.6.1 Interim Site Characterization Summary Reports

The following interim summary reports will be prepared and submitted to EPA and UDEQ:

- An interim Piezometer Installation report which will include a summary of installation activities, boring logs, survey data, development logs, and IDW disposal documentation.
- Monthly letter reports summarizing the results of each monthly water level collection effort, including potentiometric mapping and quarterly letter reports summarizing the results of each quarterly sampling effort.
- Monthly letter reports will include a summary of Prospector Drain Bypass and Biocell Outfall flows and laboratory reports.

4.6.2 Site Characterization Report

At the culmination of the year-long data collection and sampling effort, a Site Characterization Report will be produced that summarizes all of the field activities, presents and analyzes all of the data, presents the nature and extent of contamination based on that analysis, and provides a fate and transport evaluation. The Site Characterization Report shall include an outline for the EE/CA and shall be submitted within 90 days of Park City's receipt of all analytical laboratory data. The Site Characterization report will be included as an appendix to the EE, Draft EE/CA, and Final EE/CA reports.

5.0 ENGINEERING EVALUATION/COST ANALYSIS REPORT TASKS

The EE/CA uses information presented in the Site Characterization Report (which will be included in the EE/CA appendix), in conjunction with the Remedial Action Objectives (RAOs) developed by EPA and UDEQ to identify and evaluate alternatives, such that the most cost effective and appropriate removal action may be selected for OU4. The tasks necessary to perform the EE/CA are presented below.

5.1 Identification of Remedial Action Objectives

This section will be authored collectively by EPA and UDEQ to adequately address site conditions based on the findings of the Site Characterization Report.

5.2 Identification of Potential Removal Action Technologies

Both passive and active technologies will be identified for use in developing removal action alternatives. Examples of potential technologies are presented below. However, the technologies included in the EE/CA will be based on the results of the Site Characterization Report and the RAOs developed by EPA and UDEQ.

5.2.1 Passive Technologies to Reduce Impacted Flows to Prospector Drain

As part of the analysis of data collected during the project, actions may be considered singly or in combination that reduce the groundwater inflows into and through the Prospector Drain zone of influence that would reduce metal contamination in the drain, and thus the mass transport in the Biocell influent/effluent and bypass. These may include, depending on the results of the Site Characterization Report, but are not limited to:

1. Lining Silver Creek in the upstream losing segment close to Prospector Square.
2. Lining the Kearns Boulevard swale to reduce infiltration into Prospector Drain.
3. Lining Pace-Homer Ditch to reduce infiltration into Prospector Drain.
4. A hydraulic cutoff wall in one or more areas where groundwater is entering the zone of influence of the Prospector Drain.
5. Improvements to surface runoff management.
6. Irrigation management.

5.2.2 Active Technologies to Reduce Contaminant Discharges from Prospector Drain

There are several technologies that in combination can be used to treat discharges from Prospector Drain in order to meet water quality requirements. The exact mix of processes

depends on the constituents that must be removed since removal performance varies by metal. Metals to be removed may include arsenic, cadmium, lead and zinc but the specific contaminants of concern for removal actions will be determined during performance of the EE/CA.

The removal processes may include but are not limited to:

- Processes to precipitate / settle / filter dissolved and suspended metals through coagulation and/or pH adjustment.
- Filtration processes via activated media, conventional media, or membranes (microfiltration, ultrafiltration, nanofiltration, or reverse osmosis).
- Adsorption processes via various types of activated media (greensand or similar, granular activated carbon).
- Electrodialysis and ion exchange.
- Effluent conditioning including pH / alkalinity adjustment.
- Adaptation or expansion of the Biocell in conjunction with other treatment steps.

Each mix of technologies will be evaluated for its ability to comply in a consistent manner with water quality requirements, ease of operation, and the attendant capital and O&M costs.

5.3 Treatability Study – Bench Scale or Pilot Testing

The need for treatability studies (bench scale or pilot testing) will be determined based on the results of the site investigation and the potential removal action technologies identified. If such studies or tests are indicated, an appropriate work plan to accomplish that task will be developed and submitted by Park City to EPA and UDEQ for approval.

5.4 Identification and Evaluation of Removal Action Alternatives

A range of removal action alternatives will be developed that consist of the identified applicable technologies, individually or in combination, as appropriate. The alternatives will address the RAOs developed for OU4 by EPA and UDEQ and will be evaluated based on their compliance with the EPA and UDEQ identified Applicable or Relevant and Appropriate Requirements (ARARs), effectiveness, implementability, and cost.

5.5 Preliminary Engineering Evaluation Report

A Preliminary EE Report will be submitted to EPA and UDEQ for review, comment and approval prior to incorporating Cost Analysis and preparing the Draft EE/CA. This Preliminary EE will ensure that the agencies are in agreement with the proposed engineering and/or removal action alternatives prior to conducting detailed comparative and costs analysis. The Preliminary EE shall be submitted within 60 days after EPA approval of the Site Characterization Report. The Parties acknowledge that additional time may be needed if treatability studies are required.

5.6 Comparative Analysis of Removal Action Alternatives

A comparative analysis of the alternatives will be conducted to evaluate the relative performance of the alternatives with respect to effectiveness, implementability, and cost. The purpose of this analysis is to identify the relative advantages and disadvantages of the alternatives to assist in the selection of the appropriate removal action alternative.

5.7 Preferred Removal Action Alternative

Based on the evaluation and comparative analysis of removal action alternatives, the preferred removal action alternative will be identified. The preferred removal action may incorporate one or more passive and active technologies to achieve the RAOs.

5.8 EE/CA Report

The EE/CA report will be submitted to EPA in a phased approach in accordance with Pafagraph 53 of the Settlement Agreement, starting with a Preliminary EE, which will present all of the evaluations performed up to and including the identification and evaluation of passive and active removal action alternatives, as described through Section 5.4 above.

Within 60 days after the EPA has approved the Preliminary EE, a Draft EE/CA will be completed and submitted to EPA, which will add a comparative analysis of removal actions, which includes the cost analysis, and identification of the preferred removal action alternatives, as described in Sections 5.6 and 5.7 above, to the Preliminary EE.

Once EPA has reviewed and commented on the Draft EE/CA, a Final EE/CA will be prepared, responding to review comments, and will be submitted to the EPA.

6.0 REFERENCES

ANL, 2004. Argonne National Laboratory, *QuickSite® Investigation for the Upper Silver Creek Watershed, Utah: Regional Analysis and Recommendations*, 2004.

D&M, 1975. Dames & Moore, *Report of Groundwater and Foundation Investigation, Northeastern Portion of Prospector Square Development Site, Park City, Utah*, 1975.

EPA, 1988. United States Environmental Protection Agency, *Guidance for Conducting Remedial Investigation and Feasibility Studies Under CERCLA*, October 1988.

EPA, 1993. United States Environmental Protection Agency, *Guidance on Conducting Non-Time-Critical Removal Actions under CERCLA*, August 1993.

EPA, 2000. United States Environmental Protection Agency, *Guidance for the Data Quality Objectives Process*, August 2000.

EPA, 2003. United States Environmental Protection Agency, *Draft Park City Environmental Management System (EMS) dated August 18, 2003*, letter to Park City Municipal Corporation, dated September 29, 2003.

UDNR, 1998. Utah Department of Natural Resources, Technical Publication No.115, *Hydrology and Snowmelt Simulation of Snyderville Basin, Park City, and Adjacent Areas, Summit County, Utah*, 1998.

UGS, 2001. Utah Geological Survey, *Geology of Snyderville Basin, Western Summit County, Utah, and its Relation to Groundwater Conditions*, 2001.

USGS, 1989. United States Geological Survey, *Hydrology of the Prospector Square Area, Summit County, Utah*, 1989.

USGS, 2005. United States Geological Survey, *Data-Collection Activities by the USGS in Support of Groundwater Flow Modeling Being Conducted by the Bureau of Land Management (BLM) near the Prospector Square Tailings Site, Park City, Utah*, 2005.

Figures

Figure 1-1
Vicinity and Site Location Map
Park City
Summit County, Utah

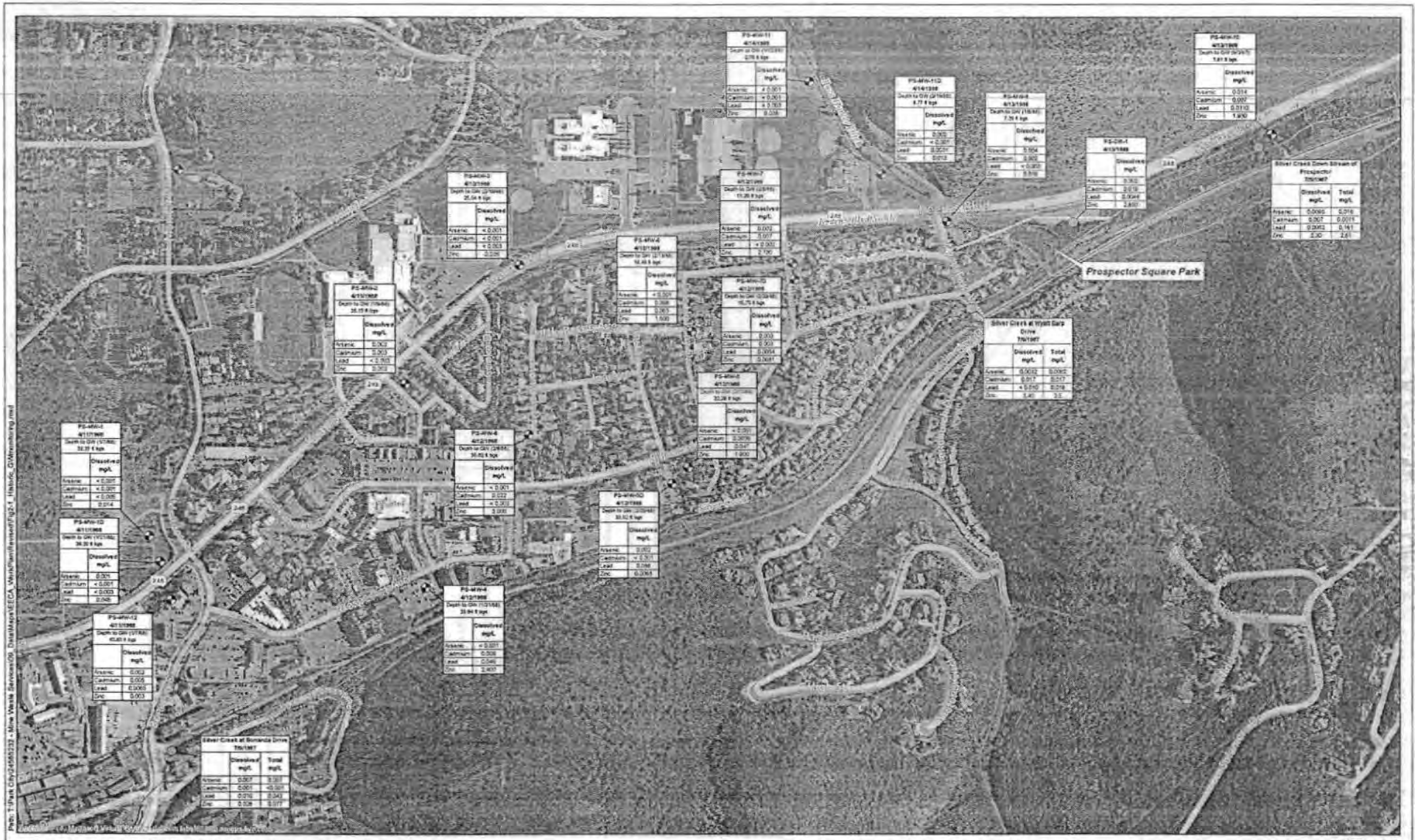
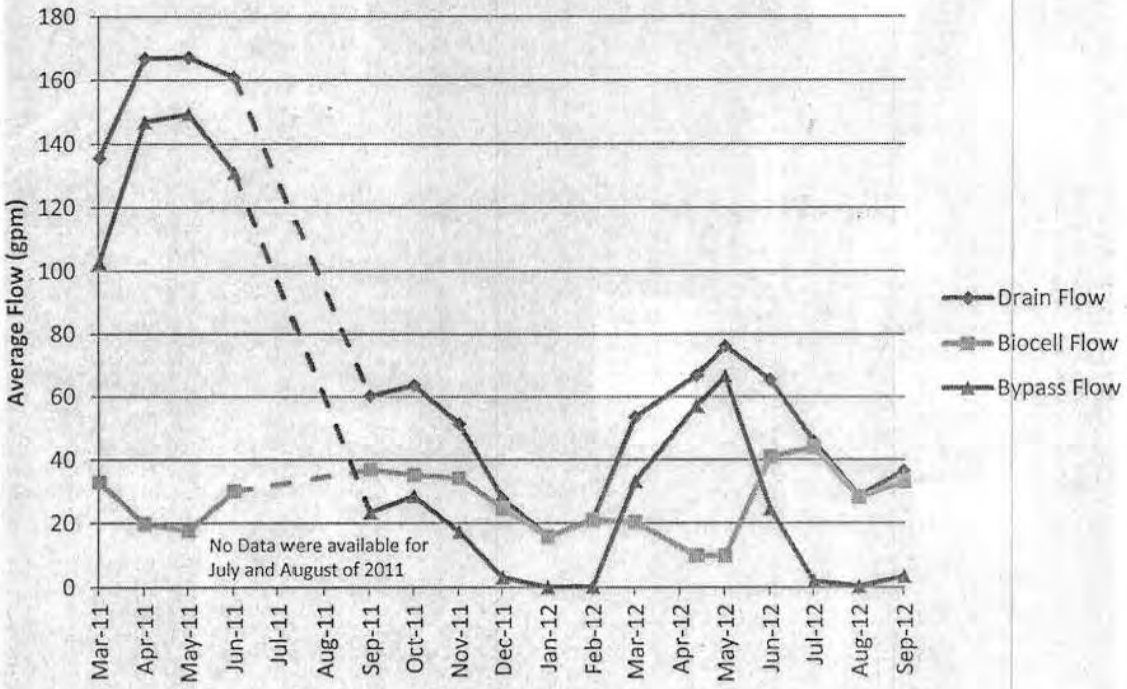


Figure 2-1
Historic Groundwater Monitoring and Water Quality Data
Park City
Summit County, Utah

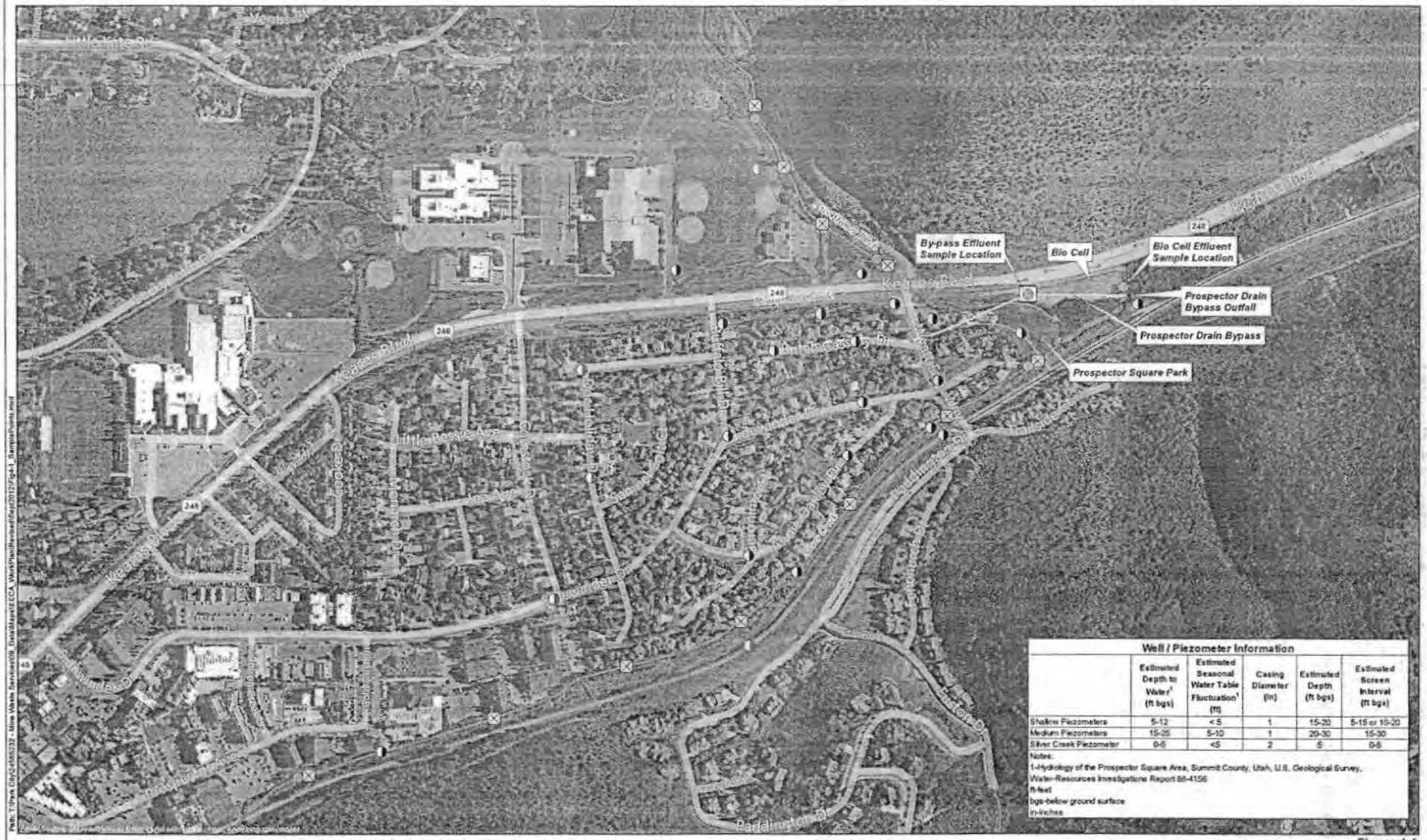


OU4 Average Flows			
Year/Month	Prospector Drain (gallons per minute)	Bio-Cell (gallons per minute)	Bypass to Silver Creek (gallons per minute)
2011			
March	135.6	32.9	102.6
April	166.8	19.8	146.9
May	167.1	17.7	149.4
June	160.9	30.0	130.9
July	No Data	No Data	No Data
August	No Data	No Data	No Data
September	60.2	36.9	23.4
October	63.6	35.2	28.5
November	51.4	34.2	17.2
December	27.7	24.6	3.1
2012			
January	15.8	15.8	0.0
February	21.2	21.0	0.2
March	53.5	20.3	33.2
April	66.8	9.8	57.0
May	75.4	9.8	66.6
June	65.4	41.0	24.4
July	45.8	43.9	1.9
August	28.5	28.2	0.3
September	36.6	33.1	3.4

Figure 2-2
Recent Prospector Drain Related Flow Data
Park City
Summit County, Utah

PARK CITY
1884

URS



Well / Piezometer Information

	Estimated Depth to Water[1] (ft bgs)	Estimated Seasonal Water Table Fluctuation[1] (ft)	Casing Diameter (in)	Estimated Depth (ft bgs)	Estimated Screen Interval (ft bgs)
Shallow Piezometers	5-12	< 5	1	15-20	5-15 or 10-20
Medium Piezometers	15-25	5-10	1	20-30	15-30
Silver Creek Piezometer	0-5	<5	2	5	0-5

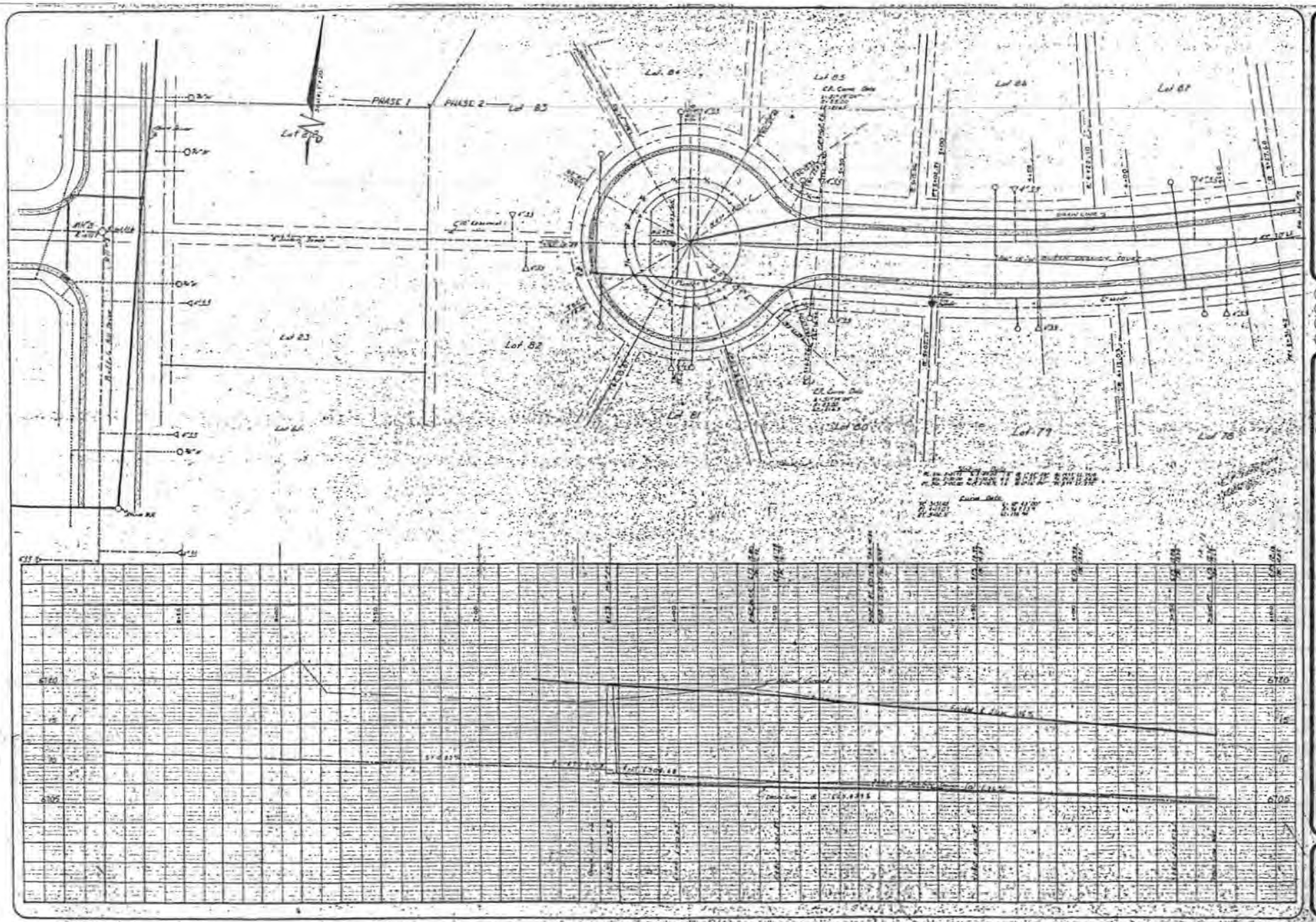
Notes:
1-Hydrology of the Prospector Square Area, Summit County, Utah, U.S. Geological Survey, Water-Resources Investigations Report 88-4156
ft-feet
bgs-below ground surface
in-inches

Figure 4-1
Proposed Groundwater Monitoring Network and Sample Point Locations
Park City
Summit County, Utah

PARK CITY

URS

Attachment A
Prospector Drain Presumed Design Drawings

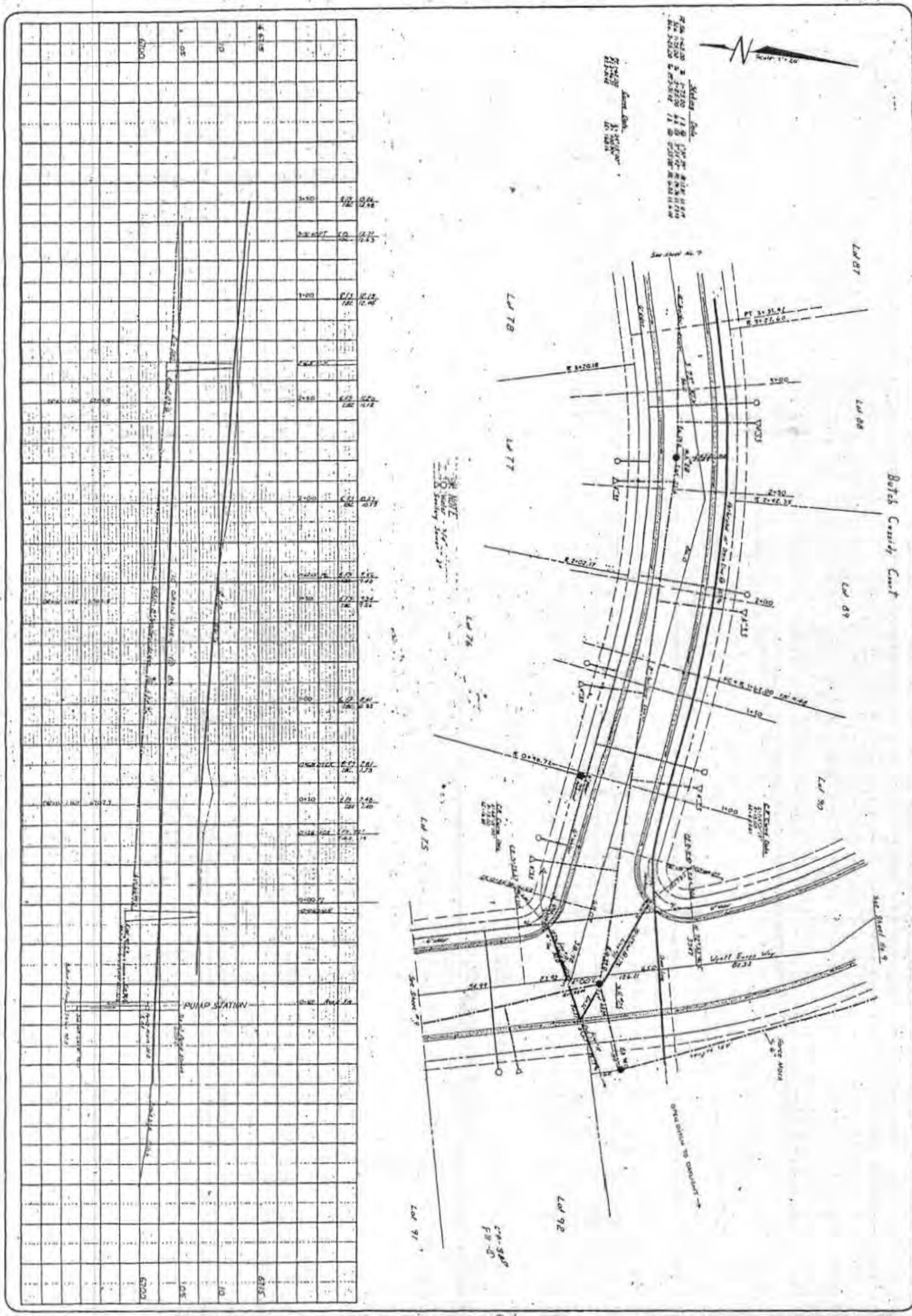


J.J.Johnson & Associates
1700 Park Avenue, Police 1201
Park City, Utah 84060
(801) 649-9811

Drawn R. Hovey
Checked SD
Approved
Date July 9, '78

PROSPECTOR PARK SUBDIVION PHASE
Butch Cassidy Court
for THE LEARNING CENTER ASSOCIATES

Sheet 7
of 13



PROSPECTOR PARK SUBDIVION PHASE 2

Butch Cassidy Court

For THE LEARNING CENTER ASSOCIATES

Sheet 8 Of 13

Drawn R. Hever
Checked JD
Approved
Date July '72

J.J.Johnson & Associates
1700 Park Avenue, p.o.box 1661
Park City, Utah 84060
(801) 649-9811

Attachment B
Piezometer Specifications

SPECIFICATION: DIRECT PUSH PIEZOMETERS INSTALLATION

A total of twenty-four (24) direct push borings (3-inch diameter) will be advanced and completed as 1-inch diameter piezometers. Continuous soil sampling will be performed using soil liner sleeves to document the soil profile and obtain XRF (one foot intervals) or grab soil samples at four foot intervals. Piezometers will be screened across the water table and will be completed according to the general specifications listed below.

To ease installation, it is suggested that the piezometers consist of Geoprobe Prepacked Well Screens, or equivalent, designed for setting small diameter monitoring wells. The pre-packed screens consist of a standard, slotted 0.75 to 1½ inch diameter PVC well screen pipe surrounded by a stainless steel mesh. An end cap will be placed on the bottom of the well screen. Sand is packed between the slotted PVC and the stainless steel mesh. Because the sand is packed around the slotted PVC before the well screen is installed, using prepacks assures that sand will be directly around the well screen. That makes well installation quicker and more efficient than traditional methods. To install monitoring wells with the prepacks, probe rods are first driven to depth and continuous soil samples can be obtained. The well assembly is then lowered into the probe rod string with a threaded PVC riser pipe. Once the well assembly is lowered to the bottom of the probe rod string, the probe rods are retracted to a point above the screen. A sand barrier will be introduced by gravity installation of 10-20, well-rounded silica sand through the rod annulus. With the barrier in place, granular bentonite or bentonite slurry is then placed above the sand and hydrated to the ground surface. The wells will be allowed to stabilize for at least 24-hours before well development. All piezometer installation shall follow EPA's March 1991 Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells (http://www.epa.gov/oust/cat/wwelldct.pdf).

(24) Shallow Piezometers (approximately 15-20' bgs)

- 14" diameter core cut though asphalt or concrete
- 1" PVC blank from 0-5'
- 1" PVC prepack screen (0.020 slots) from 5-15'
- slip cap on bottom (no cement)
- lockable pressure cap on top
- 10-20 silica sand from 3-15'
- hydrated bentonite seal from 1-2'
- concrete from 0-1'
- 7" flush mount

APPENDIX D

SCOPE OF WORK – Park City

FOR

INJURY ASSESSMENT AND RESTORATION ALTERNATIVES ANALYSIS FOR THE RICHARDSON FLAT TAILINGS SITE, OPERABLE UNIT 4, PARK CITY, UTAH

Introduction and Objectives

This Statement of Work (SOW) is an attachment to the Administrative Settlement Agreement and Order on Consent for EE/CA Investigations and Removal Action (Settlement Agreement). Park City Municipal Corporation (Park City or RESPONDENT herein) is a respondent to the Settlement Agreement. Capitalized terms used in this SOW shall have the meaning assigned to them in the Settlement Agreement, unless the term is defined in the SOW.

This SOW describes the work to be performed by RESPONDENT to fulfill the requirements of Section X of the Settlement Agreement by conducting a Natural Resource Injury Assessment and Restoration Alternatives Analysis ("Injury Assessment and Restoration Alternatives Analysis") for OU4. RESPONDENT shall coordinate with the Natural Resource Trustees in performing this work. RESPONDENT shall provide all documents and responses required by this SOW to the Natural Resource Trustees, the Lead Administrative Trustee (LAT) and to the State Trustee's technical advisors identified in Section XXXIII of the Settlement Agreement. The Natural Resources Trustees have identified DOI as the LAT, to be represented by the Fish and Wildlife Service. Should the Natural Resources Trustees change the LAT, it shall notify the RESPONDENT of the change in designation. The Natural Resource Trustees intend to have the LAT provide coordinated comments to RESPONDENT regarding all activities and deliverables performed or prepared by the RESPONDENT.

All activities performed and deliverables prepared by RESPONDENT pursuant to this SOW shall be subject to the review, comment, and approval of the Natural Resource Trustees. The activities and deliverables specified in Tasks 1 - 6 of this SOW shall be used by RESPONDENT to prepare the Draft Injury Assessment and Restoration Alternatives Analysis required by Task 7. Thereafter, the Natural Resource Trustees will prepare the Final Injury Assessment and Restoration Alternatives Analysis.

In coordination and concurrence with the authorities of the Trustees for Natural Resources as set forth in Subpart G of the National Contingency Plan, 40 C.F.R. Part 300, Subpart G, and as described in an Assessment Plan that is prepared by RESPONDENT, RESPONDENT shall collect data to determine and quantify injuries to natural resources resulting from the release of hazardous substances at or from OU4. In consultation with the LAT and in coordination with the performance of the EE/CA Work Plan, RESPONDENT shall collect various data types which may include but are not limited to geological (e.g. soils, sediments), biological (e.g. vegetation, biota), surface water, ground water, and air samples and at analytical detection concentrations sufficient to determine potential injury to federal and state natural resources and their supporting ecosystems. RESPONDENT shall coordinate with the Natural Resource Trustees and EPA to ensure that the sampling required for the EE/CA and the Injury Assessment and Restoration Alternatives Analysis is integrated to the extent practicable. All work shall be technically and legally defensible and in full compliance with the National Contingency Plan (NCP) and Natural Resource Damage Assessment (NRDA) Regulations, 43 C.F.R. Part 11. The Natural Resources Trustees acknowledge that the procedures and tasks established and identified in this SOW are consistent with Subpart G of the NCP and the NRDA Regulations.

In accordance with 43 C.F.R. §11.82, RESPONDENT shall, in consultation with the Natural Resource Trustees, develop and evaluate a range of alternatives for the restoration, rehabilitation, replacement and/or acquisition of the equivalent of injured natural resources and the services those resources provide to baseline conditions (hereafter referred to as "restoration alternatives"). Such restoration alternatives will identify and evaluate opportunities for coordinating or integrating implementation of restoration with the Removal Action Alternative selected for OU4. Restoration alternatives must be appropriate for NRDA restoration under the NRDA Regulations and must be described in sufficient detail to be analyzed under the National Environmental Policy Act that the Federal Natural Resource Trustees intend to prepare. The Injury Assessment and Restoration Alternatives Analysis shall be consistent with the outline presented in Attachment A of this SOW. RESPONDENT will perform all necessary technical analyses, edit the documents, prepare graphics, and provide any other necessary technical products for distribution to and review by the Natural Resource Trustees.

This SOW defines the specific tasks to be performed by RESPONDENT to develop its Draft Injury Assessment and Restoration Alternatives Analysis. RESPONDENT will work closely with the Natural Resource Trustees to develop the Injury Assessment and Restoration Alternatives Analysis for OU4, including all related components and reports, and remain in close communication with representatives of the Natural Resources Trustees throughout the work period. Upon request, RESPONDENT shall submit all deliverables in electronic form to the LAT.

Project Description and Tasks

RESPONDENT will be responsible for completing the following tasks for OU4:

Task 1 - Coordinate Assessment Planning and Data Collection and Review with Natural Resource Trustees

RESPONDENT shall coordinate with the Natural Resource Trustees in developing an Assessment Plan that ensures the assessment is performed in a planned and systematic manner. The Assessment Plan shall be prepared by RESPONDENT in a manner consistent with the NRDA regulations and the tasks listed in this SOW, and shall be structured in a manner that is in coordination with and consistent with the provisions of the EE/CA that is prepared for OU4.

RESPONDENT shall conduct data collection and interpretation activities to determine and quantify potential injuries resulting from the releases of hazardous substances to natural resources at or from OU4. RESPONDENT shall coordinate with the Natural Resource Trustees on various data collection activities which may include but are not limited to collecting geological (e.g. soils, sediments), biological (e.g. vegetation, biota), surface water, ground water, and air samples. The Natural Resource Trustees shall review and approve all data collection methods, analytical procedures and results, quality assurance/quality control measures, and all other methods, procedures, or practices needed to determine potential injury to or loss of federal and state natural resources and their supporting ecosystems. These data collection activities shall be coordinated or integrated with data collection activities conducted by RESPONDENT in preparing the EE/CA for OU4 to the extent practicable.

Task 2- Assist Natural Resource Trustees with a Baseline Resources and Services Analysis

RESPONDENT shall assist the Natural Resource Trustees with preparing a "Baseline Services Analysis," consistent with the definition of the term "baseline" as defined in 43 C.F.R. Part 11, regarding resources and services within OU4. The Baseline Services Analysis will later be used in preparing the Injury Assessment and Restoration Alternatives Analysis. During preparation of this analysis, RESPONDENT will regularly communicate and interact with the Natural Resource Trustees (via conference calls, meetings and/or the exchange of written material) as injury determination and quantification proceeds. This analysis will provide the basis for assessing potential natural resource injuries and service losses and evaluating the effects of the Removal Action Alternative selected for OU4 on such potential injuries and service losses.

Task 3 - Assist Natural Resource Trustees with Identification of Restoration Objectives and the Identification and Quantification of Injuries to Natural Resources

RESPONDENT shall assist the Natural Resource Trustees to identify restoration objectives for OU4. RESPONDENT shall participate in meetings with the Natural Resource Trustees to identify criteria for selection of restoration alternatives that should be used to support development of potential primary and compensatory restoration alternatives as part of Task 5.

RESPONDENT will use readily available information identified in Attachment B to this SOW and, in coordination with the Natural Resource Trustees, will use data collected under Task 1 to identify and quantify potential injuries to natural resources, including injuries that may have already occurred as a result of the release of hazardous substances at or from OU4 and injuries that would result from the selected Removal Action Alternative for OU4. As necessary, the Natural Resource Trustees will provide RESPONDENT (or vice-versa) with available documents associated with the CERCLA removal and NRDA processes, other environmental investigations at the RFT Site, and preliminary findings on injuries to natural resources. RESPONDENT will assist the Natural Resource Trustees to develop an analysis of potential past injuries and anticipated injuries that may result from the Removal Action Alternative selected for OU4 to estimate appropriate compensation for lost services using a valuation methodology and technical approaches to quantify injuries in a manner consistent with applicable federal and state statutes and the NRDA Regulations. Such analysis shall be included in the Draft Injury Assessment and Restoration Alternatives Analysis.

Task 4 - Assist Natural Resource Trustees with Evaluation of Lost Human Use Services

In coordination with the Natural Resource Trustees, RESPONDENT shall assist the Natural Resource Trustees in an assessment of lost and/or diminished recreational uses that may have resulted from the release of hazardous substances at or from OU4. This assessment will include, but shall not be limited to, reviewing existing information, assisting with the assessment of lost and/or diminished recreational use, and documenting and presenting determined human use losses, if any. Primary and compensatory restoration for lost recreational opportunities or human uses will be analyzed under Task 5 below. Such analysis shall be included in the Draft Injury Assessment and Restoration Alternatives Analysis.

Task 5 - Identification, Scaling and Costing of Primary and Compensatory Restoration Projects

Upon issuance of the Final EE/CA for OU4, RESPONDENT shall, in coordination with the Natural Resource Trustees, identify potential restoration alternatives that can be coordinated with the preferred Removal Action Alternative for OU4 identified by the Final EE/CA. In coordination with the Natural Resource Trustees, RESPONDENT will, during the identification of potential restoration projects, develop preliminary estimates of project scale and costs and/or implement valuation approaches, all based on methods consistent with NRDA regulations. Restoration alternatives will include restoration for lost and/or diminished human use and ecological services. Such analysis shall be included in the Draft Injury Assessment and Restoration Alternatives Analysis.

Task 6 - Assist Natural Resource Trustees with Development of Maps and Graphics

In coordination with the Natural Resource Trustees, RESPONDENT shall support development of GIS exhibits, maps and other graphics that visually illustrate the extent and severity of injury in the assessment area, link restoration and injury analyses, and/or otherwise support the assessment needs.

Task 7 - Prepare Draft and Final Injury Assessment and Restoration Alternatives Analysis

Based on the results of the activities and deliverables required under Tasks 2 through 6, RESPONDENT shall prepare and deliver to the Natural Resource Trustees a Draft Injury Assessment and Restoration Alternatives Analysis 30 days after the Final EE/CA is completed. The RESPONDENT shall assist the Natural Resource Trustees with revising the Draft Injury Assessment and Restoration Alternatives Analysis, as the Natural Resources Trustees deem appropriate. The Natural Resources Trustees shall complete a final version of the Injury Assessment and Restoration Alternatives Analysis and intend to provide it to EPA prior to the time EPA issues its Action Memorandum for OU4.

Task 8- Meetings and other support

RESPONDENT will participate in meetings with the Natural Resource Trustees to facilitate development of the Injury Assessment and Restoration Alternatives Analysis. RESPONDENT should anticipate attending several meetings per year during the period of performance and expect to participate in conference calls each month with the Natural Resource Trustees (in addition to more frequent interaction with the primary contacts for the Natural Resource Trustees). The contacts for the Natural Resource Trustees are included in the AOC.

Schedule for Coordination Activities and Deliverables

The Natural Resource Trustees anticipate that aspects of several of the tasks should be coordinated and implemented prior to RESPONDENT's submission of a final EE/CA and issuance of the Action Memorandum for OU4.

Deliverable	Timeline
Teleconferences and meetings with Natural Resource Trustees	Beginning 30 days after the Effective Date of the Settlement Agreement.
Draft Injury Assessment and Restoration Alternatives Analysis Report for OU4	After the final EE/CA for OU4 is completed

ATTACHMENT A

EXAMPLE INJURY ASSESSMENT AND RESTORATION ALTERNATIVES OUTLINE
(Note: To the extent applicable and appropriate, data and information may be incorporated into documentation by reference.)

Title Page
Signature Page
Table of Contents
List of Tables
List of Figures
List of Appendices

Summary

1. Introduction
   - 1.1. Authority
   - 1.2. Contents of This Document
   - 1.3. Public Participation
2. Purpose and Need for Restoration
   - 2.1. Purposed and Need
   - 2.2. Overview and History of OU4
     - 2.2.1. OU4 Location and Description
     - 2.2.2. OU4 History
   - 2.3. Resource Characteristics
     - 2.3.1. Habitat
     - 2.3.2. Surface Water
     - 2.3.3. Groundwater
     - 2.3.4. Fish and Wildlife
     - 2.3.5. Human Use
   - 2.4. Summary of Response Actions
   - 2.5. Summary of Previous Investigations
   - 2.6. Overview of Requirements
     - 2.6.1. Injury Determination and Quantification
     - 2.6.2. Damage Determination
     - 2.6.3. Restoration Determination and Alternatives

3. Injury Determination and Quantification
    3.1. Injury Assessment Strategy
    3.2. Injury Determination
        3.2.1. Contaminants of Concern
        3.2.2. Pathways of Contamination
        3.2.3. Testing and Sampling Methodology
    3.3. Injury Quantification
        3.3.1. Ecological Services at OU4
        3.3.2. Ecological Services Evaluated/Not Evaluated
        3.3.3. Ecological Toxicity Benchmarks
        3.3.4. Estimating Loss of Aquatic Services
            3.3.4.1. Wetland Losses
            3.3.4.2. Stream Losses
        3.3.5. Estimating Loss of Terrestrial Services
        3.3.6. Estimating Loss of Human Uses
    3.4. Damage Determination
        3.4.1. Habitat Equivalency Analysis (HEA)
            3.4.1.1. Methodology
            3.4.1.2. Input Assumptions for OU4
            3.4.1.3. OU4 Features
            3.4.1.4. Assumptions
                3.4.1.4.1. Baseline
                3.4.1.4.2. Injury
                3.4.1.4.3. Natural Recovery
                3.4.1.4.4. Primary Restoration
                3.4.1.4.5. Compensatory Restoration
            3.4.1.5. HEA Results
                3.4.1.5.1. Debits
                3.4.1.5.2. Compensatory Restoration
        3.4.2. Human Use Analysis
            3.4.2.1. Methodology
            3.4.2.2. Input Assumptions for OU4
            3.4.2.3. OU4 Features

3.4.2.4. Assumptions
3.4.2.4.1. Baseline Level of Recreational Use
3.4.2.4.2. Current Level of Recreational Use
3.4.2.5. Economic Assessment Results
3.4.2.5.1. Debits
3.4.2.5.2. Compensatory Restoration
4. Restoration Determination and Alternatives
4.1. Restoration Objective
4.2. Restoration Selection Criteria
4.3. Screening of Restoration Alternatives
4.4. Scaling Restoration Alternatives
4.5. Proposed Restoration Alternatives
4.5.1. No Action
4.5.2. Alternative A (Preferred Alternative)
4.5.3. Alternative B
4.5.4. Alternatives Considered but Dismissed
4.5.5. Management
4.5.6. Implementation
4.5.7. Schedule
5. Environmental Consequences
5.1. No Action
5.1.1. Physical Environment
5.1.2. Biological Environment
5.1.3. Cultural and Human Environment
5.2. Alternative A
5.2.1. Physical Environment
5.2.2. Biological Environment
5.2.3. Cultural and Human Environment
5.3. Alternative B
5.3.1. Physical Environment
5.3.2. Biological Environment
5.3.3. Cultural and Human Environment
6. Impact Comparison Matrix

7. Monitoring Program and Performance Criteria
8. Preferred Alternative
9. Implementation
    9.1. Management
    9.2. Implementation
    9.3. Schedule
10. List of Preparers
11. List of Agencies, Organization, and Parties Consulted and/or Contacted
12. Literature Cited
13. Appendices

ATTACHMENT B

LIST OF LITERATURE TO BE USED TO SUPPORT ASSESSMENT AS APPLICABLE

A partial list of investigations includes:

- Agra Earth and Environmental (Agra), Inc. 2000.Site Inspection Analytical Results Report, Marsac Mill, Park City, Summit County, Utah. Consultant's report prepared for Park City Municipal Corporation.
- Ashland, F.X., Bishop, C.E., Lowe, M., and B.H. Mayes. 2001. The Geology of the Snyderville Basin, Western Summit County, Utah, and its relation to ground-water conditions, Water Resource Bulletin 28.
- Brooks, L.E., Mason, J.E., and D.D. Susong. 1998. Hydrology and Snowmelt Simulation of the Snyderville Basin, Park City, and Adjacent Areas, Summit County, Utah: U.S. Geological Survey, Water-Resources Investigation Report.
- Broomfield, C.C. and M.D. Crittenden. 1971. Geologic Map of the Park City East Quadrangle Summit and Wasatch Counties, USGS Map GQ-852.
- Bureau of Land Management (BLM).2005. Removal Site Inspection, Silver Maple Claims. National Science and Technology Center. Denver, CO. April 25, 2005
- Dames and Moore.1975.Report Of Groundwater and Foundation Investigation Northeastern Portion of Prospector Square Development Site, Park City, Utah for Prospector Square Development Company
- Dynamac Corporation.2003. Final Silver Maple Wetland Functional Assessment
- Giddings, E.M., Hornberger, M.I., and H.K. Hadley. 2001. Trace metal concentrations in sediment and water and health of aquatic macroinvertebrate communities of streams near Park City, Summit County, Utah: U.S. Geological Survey Water- Resources Investigations Report 01-4213.
- Holmes, W.F., Thompson, K.R., and M. Ehright.1986.Water resources of the Park City area, Utah, with emphasis on groundwater: Utah Department of Natural Resources Technical Publication 85.
- Kimball, B.A., Johnson, K.K., Runkel, R.L., and J.I. Steiger. 2004. Quantification of metal loading to Silver Creek through the Silver Maple Claims area, Park City, Utah, May 2002: U.S. Geological Survey Water-Resources Investigations Report 03-4296

- Kimball, B.A., Runkel, R.L., and K. Walton-Day. 2005. Principal Locations of Metal Loading from Floodplain Tailings, Lower Silver Creek, Utah, April 2004: U.S. Geological Survey Scientific Investigations Report.
- Kolm, K.E. and E. Yan. 2004. Quick Site Investigation for the Upper Silver Creek Watershed, Utah: Regional Analysis and Recommendations.
- Kolm, K.E. and E. Yan.2005.Groundwater Flow Modeling for Prospector Square and Silver Maple Claims Tailings Sites, Park City, Utah
- Mason, J.L.1989.Hydrology of the Prospector Square Area, Summit County, Utah, United States Geological Survey, Water Resources Investigation Report 88-4156.
- Michael Baker Jr., Inc. 2004.Silver Creek Total Maximum Daily Load for dissolved zinc and cadmium: Utah Department of Environmental Quality, Division of Water Quality, (http://www.waterquality.utah.gov/TMDL/Silver_Creek_TMDL.pdf)
- Park City Municipal Corporation. 1984. Construction Drawings for Prospector Detention Structure.
- Tetra Tech Inc. 2008. Lower Silver Creek, Utah, Reactive Transport Modeling Under High Flow Conditions for Cadmium and Zinc.
- Tetra Tech, Inc. 2008. Lower Silver Creek Data Summary Report, Park City, Utah.
- Tetra Tech, Inc. 2008. Lower Silver Creek Draft Wetland Delineation, Park City, Utah.
- Tillia, Ann M. 2001. Lower Silver Creek Innovative Assessment Work Plan, Utah Department of Environmental Quality Division of Environmental Response and Remediation.
- Tillia, Ann M. 2002. Innovative Assessment Analytical Results Report, Utah Department of Environmental Quality Division of Environmental Response and Remediation.
- U.S. Environmental Protection Agency and Upper Silver Creek Watershed Stakeholders Group. 2001. Data Interpretation Report Upper Silver Creek Watershed Surface Water/Stream Sediment Monitoring 2000
- United Park City Mines. 2005.Richardson Flat Record of Decision, (http://www.epa.gov/region8/superfund/ut/richardsonflat/)
- USDA. 1977. Soil Conservation Service, Soil Survey and interpretations Parleys Park Portion of Soil Survey of Summit Valley Summit County, Utah, Bulletin 495.

- USGS. 2005. Data-collection activities by the U.S. Geological Survey (USGS) in support of groundwater flow modeling being conducted by the Bureau of Land Management (BLM) near the Prospector Square Tailings Site, Park City, Administrative Report.

- Utah Department of Environmental Quality/Division of Environmental Response and Remediation (UDEQ/DERR) and the United States Geological Survey (USGS).1986. Water Resources of the Park City Area, Utah with Emphasis on Groundwater; Technical Publication No. 85.

- Utah Department of Health (UDH).1989. Groundwater and Surface Water Study Report, Silver Creek Tailing Site.

APPENDIX E
MAJOR DELIVERABLES

DOCUMENT/ACTIVITY	REFERENCE	RECEPIENTS	DUE DATE
Names, titles, qualifications of personnel to implement Removal Action	Settlement Agreement Paragraph 26 (a)	EPA	60 days following EPA's issuance of Action Memorandum
Designation of project coordinator responsible for Removal Action Work	Settlement Agreement Paragraph 26 (b)	EPA	15 days following EPA's issuance of Action Memorandum
Request for additional data	Settlement Agreement Paragraph 34 (a)	EPA UDEQ BLM FWS State NR Trustee	7 days after identification of need
EE/CA Progress Reports	Settlement Agreement Paragraph 36	EPA UDEQ BLM FWS State NR Trustee	Quarterly
Notice of significant field events	Settlement Agreement Paragraph 38(b)	EPA UDEQ BLM FWS State NR Trustee	30 days prior to the event
All EE/CA plans, reports or other submittals	Settlement Agreement Paragraph 39	EPA UDEQ BLM FWS State NR Trustee	As set forth in Settlement Agreement, work plans or SOWs.
Draft Removal Action Work Plan	Settlement Agreement Paragraph 42 (a)	EPA UDEQ BLM FWS State NR Trustee	90 days following EPA's issuance of Action Memorandum

Health and Safety Plans	Settlement Agreement Paragraph 43	EPA UDEQ BLM FWS State NR Trustee	60 days following EPA's issuance of Action Memorandum
Removal Progress Reports	Settlement Agreement Paragraph 45(a)	EPA UDEQ BLM FWS State NR Trustee	Quarterly
Notice of transfer of site property	Settlement Agreement Paragraph 45 (b)	EPA UDEQ	30 days prior to transfer
Final Removal Report	Settlement Agreement Paragraph 46	EPA UDEQ BLM FWS State NR Trustee	30 days after completion of Work
All Removal Action plans, reports or other submittals required by the Settlement Agreement	Settlement Agreement Paragraph 47	EPA UDEQ BLM FWS State NR Trustee UDPR if impact on Rails & Trails	As set forth in Settlement Agreement, work plans or SOWs.
Notification of off-site shipment of Waste Material	Settlement Agreement Paragraph 48	EPA Official in receiving state	Prior to shipment
Notice of Force Majeure	Settlement Agreement Paragraph 81	EPA	48 hours after
Certificate of Insurance	Settlement Agreement Paragraph 108	EPA	30 days prior to commencing work on-site
Financial Assurance for EE/CA	Settlement Agreement Paragraph 109 (a)	EPA	60 days of Effective Date of Settlement Agreement
Financial Assurance for Removal Action	Settlement Agreement Paragraph 109 (b)	EPA	60 days after issuance of Action Memorandum

OU4 Sampling and Analysis Plan , which includes EE/CA Field Sampling Plan, Health & Safety Plan and QAPP	EE/CA SOW 4.1	EPA UDEQ BLM FWS State NR Trustee	60 days after Effective Date of Settlement Agreement
Interim Site Characterization Reports including Piezometer Installation Report	EE/CA SOW 4.6.1	EPA UDEQ BLM FWS State NR Trustee	Monthly during site characterization activities
OU4 Site Characterization Report	EE/CA SOW 4.6.2	EPA UDEQ BLM FWS State NR Trustee	90 days from Park City's receipt of all analytical laboratory data
OU4 EE/CA Outline	EE/CA SOW 4.6.2	EPA UDEQ BLM FWS State NR Trustee	Concurrent with submittal of Site Characterization Report
Preliminary EE Report	OU4 SOW 5.5	EPA UDEQ BLM FWS State NR Trustee	60 days after EPA approval of Site Characterization Report
Final EE Report	SOW 5.8	EPA UDEQ BLM FWS State NR Trustee	30 days after receipt of EPA comments on draft EE Report
OU4 Draft Assessment and Restoration Analysis	OU4 NRD SOW	EPA UDEQ BLM FWS State NR Trustee	30 days after EPA approval of final EE/CA Report
OU4 Final Assessment and Restoration Analysis	OU4 NRD SOW	EPA UDEQ BLM FWS State NR Trustee	30 days after EPA issuance of the OU4 Action Memorandum