

1. INTRODUCTION

EA Engineering, Science, and Technology, Inc. (EA) performed a site inspection (SI) for the U.S. Department of Agriculture, Forest Service (Forest Service) at the Idol City Mine site, located in the Malheur National Forest near Burns, Oregon. The work was performed under Contract Number 53-0604-02-33. The SI was performed in general accordance with U.S. Environmental Protection Agency (USEPA) guidance for performing SIs under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

The objectives of the SI were to (1) assess the immediate or potential threat that wastes at the site pose to human health and the environment, and (2) to collect information to support a decision regarding the need for further action under CERCLA and the Superfund Amendments and Reauthorization Act (SARA). Potential contaminant sources identified at the abandoned Idol City Mine site included waste rock and discharges from mine adits.

Preliminary findings of an Abbreviated Preliminary Assessment (APA) performed by Cascade Earth Sciences in October 2002 (CES 2002) indicated that waste rock piles associated with mining operations at the site occur within and adjacent to the floodplain of the Gold Gulch drainage. Soil and waste rock sampling indicated that arsenic and lead exceeded USEPA Region 9 Industrial Preliminary Remediation Goals (PRGs) for soil. Based on the limited APA sampling and the proximity of waste rock to the Gold Gulch drainage and Trout Creek, performance of a SI was recommended.

Tasks performed during the SI included background research and file review, onsite and offsite reconnaissance, and collection and analysis of soil, waste, surface water, pore water, sediment, plant tissue, and benthic macroinvertebrate samples. Field work for the SI was performed from 20 to 23 July 2003. The SI was performed in accordance with the project plans, including the Work Plan (EA 2003a), Sampling and Analysis Plan (EA 2003b) and Health and Safety Plan (EA 2003c). These plans were prepared for the Idol City Mine, together with 3 other abandoned mines in the Malheur National Forest. Investigations at the other 3 mines were not completed during the 2003 summer field season due to work restrictions caused by extremely high fire danger. Field methods used at the Idol City Mine site followed the Standard Operating Procedures initially prepared for the site (EA 2003d), except as modified for conformance with work at additional mine sites (EA 2003e). A number of modifications to the sampling locations and techniques were made in the field, based on site observations and field conditions, and with the concurrence of the Forest Service On-Scene Coordinator (OSC). These modifications are documented in Appendix A.

Descriptions of the site, operational history, and wastes generated are provided in Section 2. The results of the SI, along with discussions of the groundwater, surface water, soil, and air exposure pathways, are provided in Section 3. A summary and conclusions are provided in Section 4. The appendixes include a list of deviations from the project plans (Appendix A), site photographs (Appendix B), a General Information Form for the site (Appendix C), copies of supporting information (Appendix D), aquatic and terrestrial investigation tables (Appendix E), a soil sample log (Appendix F), laboratory analytical reports (Appendix G), and survey information and waste pile calculations (Appendix H).