

Assessment of Selected Contaminant Concentrations and Loads in Streams Draining
the Historic Stibnite Mining District

Candice Adkins
U.S. Geological Survey
230 Collins Rd
Boise, ID 83702
208-387-1331
208-387-1372 (fax)
cadkins@usgs.gov

The U.S. Geological Survey, in cooperation with the Idaho Department of Lands, is conducting a study in the Stibnite mining district, central Idaho, along a 5-km stretch of Meadow Creek and the East Fork of the South Fork of the Salmon River, an area of heavy mining activity since the 1920s. Extensive reclamation in the area of Stibnite has been performed by various public and private entities, but discrete sources of potential contaminants, such as metals, arsenic, and cyanide still exist in the area's soil, groundwater, seeps, and sediments. Further remediation will require a detailed understanding of the location and magnitude of contaminant sources contributing to the area's streams. The two-part study will evaluate these sources, their location, magnitude, and the timing of contaminant transport to surface water in the district. Part one of the study involved synoptic sampling to quantify trace metals while simultaneously conducting a trace-injector study during base streamflow conditions. These data will be used to develop spatially-detailed profiles of metal loading along the study reach. The second part of the study involves the placement of a series of continuous water quality monitors, and stream gages, to profile contaminant loading on a spatial and temporal basis in the study reach. Together, these data will help to identify contaminant sources to be targeted for future remediation.