

# BEARTRACK MINE

## Heap Leach Closure

Salmon, Idaho

### Client:

Meridian Beartrack  
Company

Mr. Adam Whitman  
775.200.4959

### Contract Value:

\$245,000

### Performance Period:

1990 to Current

### Technical Areas:

- Solid Waste Management
- Civil Design
- Geotechnical Engineering, Geology and Hydrogeology
- Financial and Risk Management

### Successes:

Reduced leachate

Two-phase construction designed to finish before winter season



## BACKGROUND

Meridian Beartrack Mine is located west of Salmon, Idaho, and is owned by the Meridian Gold Company. The mine ceased gold production in 1990. Closure operations started immediately upon cessation of mining and included closure of a 140-acre Heap Leach Pad. The Heap Leach Pad material consists of a silty, sandy soil that includes gravel and cobble-sized materials mined from two open pits. Infiltration from snowmelt and rain into the Heap Leach Pad emerges as leachate that is collected in pipes along its south and west perimeters.

The final discharge standards set very low concentrations for mercury and other constituents in discharge water. Consequently, infiltration has to be minimized by an effective cover that will also control surface water runoff.

## SES ROLE

SES analyzed different cover options for the deck and side slopes, including geosynthetics-based covers (GCL, geomembrane) and an evapotranspirative cover. Combinations of covers between top deck and side slopes were examined based on calculated infiltration and potential leachate generation. The solution selected includes a geomembrane-based cover on the top deck and an evapotranspirative cover for the side slope.

SES oversaw design of the top deck cover and is designing the side slope cover. Locally available soils are being tested for suitability in constructing the evapotranspirative cover.



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