BEARTRACK MINE HEAP LEACH CLOSURE

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, which started immediately upon cessation of mining, 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 snow melt 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 leachate. Consequently, infiltration has to be minimized by an effective cover that will also control surface water runoff.

OUR ROLE
• Analyzed different cover options for the deck and side slopes. These included geosynthetics-based covers (GCL, geomembrane) and an evapotranspirative cover. Combinations of covers were examined based on calculated infiltration and potential leachate generation. The selected solution includes a geomembrane-based cover on the top deck and an evapotranspirative cover on the side slope.

HIGHLIGHTS
• Reduced Leachate
• Two-phase construction designed to finish before winter season

ADDITIONAL INFORMATION
Project Value: $245,000