

GCL serves as more stable component to compacted clay liner in critical areas of Gold Heap Leach Pad

The Gold Mine Heap Leach project is a large, open pit gold deposit located in central Turkey. The site processes gold ore through leaching, in which a chemical solution is irrigated through heaps of ore, dissolving the precious metal. The resulting gold-infused liquid trickles down to a leach pad, where it is collected and pumped to a recovery facility.



PROJECT DETAILS

Heap Leach Pad in Gold Mine

LOCATION

Erzincan Province, Turkey

PRODUCTS USED

BENTOMAT® ST (AS3000) GCL

A large, open pit gold deposit located in central Turkey.

CHALLENGE:

To install a seamless and gas-tight membrane to the 250,000 square foot underslab and to cost-effectively seal around the numerous penetrations, columns and tie backs and to protect the 70,000 square feet of vertical walls from water ingress.

This renowned and prestigious school campus site is the home to a world-class headquarters facility, located in Seattle, WA. The campus is situated on a site with petroleum gas issues from a former maintenance facility. The campus has a large underground parking structure with two buildings and a plaza on top.

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SOLUTION:

The owner petitioned for a permit to use GCL in the critical areas of the leach pad to enhance stability, avoiding potential deformation of natural compacted clay on the northern and eastern perimeters of the leach pad. The company was successful in approving BENTOMAT® ST GCL as the secondary liner to be used in lieu of the 30 cm of compacted natural clay for these critical areas.

The heap leach pad was lined with a geomembrane placed over BENTOMAT ST (AS3000) GCL in order to contain the leaching liquids from infiltrating surrounding soil and water.

RESULT:

Phase 1 of the lined heap leach pad has now been completed. The leach pad will consist of three phases and will have an approximate area of 440,000 m². Initial estimates indicate that the ultimate pad will process 40 million tonnes of crushed and agglomerated ore in over 12 years. The pad will be lined with 1.5-mm (60-mil) LLDPE geomembrane placed on compacted clay, and in critical areas on BENTOMAT ST (AS3000) GCL supplied by CETCO Iberia.