

Geotechnical Engineering Services

Foundations

*Spread footings
Mats
Piers
Piles*

Temporary and Permanent Retaining Structures

*Soldier pile
Soil nail
Sheet pile
Concrete
Mechanically-stabilized earth
Masonry*

Underground Structures and Excavations

*Basements
Tunnels
Mines
Dewatering*

Slopes and Embankments

*Cuts
Fills
Concrete dams
Earthen and tailings dams
Failures*

Ground Modification

*Dynamic deep compaction
Vibroflotation
Vibroreplacement
Geopiers
Slurry trenches
Staged filling and surcharging*

Instrumentation

*Piezometers and monitoring wells
Inclinometers
Time-domain reflectometry
Tilt sensors
Alignment gauges*

Gentek's Geotechnical engineers, engineering geologists, and structural engineers work with clients to develop site characterization programs and evaluate foundation, ground modification, and stabilization alternatives. We also help clients as their projects progress by providing foundation and structural component design and construction document preparation.

Technical Tools

Gentek's engineers apply powerful computer programs to Geotechnical problems. Using SLOPE/W, SIGMA/W, and SEEP/W, we evaluate material stability and deformation in response to cuts, fills, other structural loads, and changes in groundwater regime. We can model aquifer response and groundwater flow using SLAEM and MLAEM. We also perform finite element analyses of soils, rocks, and structures using FLAC and apply WEAP analyses to pile foundation design.



Gentek performed slope stability and transient seepage analyses for Dewatering this large open-pit iron mine in soil and rock. (Soganli Mountains, Turkey; Client : Blacksea iron company)

Construction Services and long-term Support

When Geotechnical determinations are completed, Gentek can help you prepare project plans and specifications and associated contracts and bid documents. We can also develop cost estimates for construction management, inspection, and testing; wave equation analysis for pile foundations; and dynamic pile testing with a Case Goble Pile Driving Analyzer. After your facilities are up and running, Gentek can provide critical support services. We prepare and help implement operations manuals, set up and provide or oversee database management systems, and, when needed, provide expert testimony.

For more information

on the full range of Gentek's Geotechnical engineering services, please call 90 312 499 40 45-GENTEK. For more on all of Gentek's services, visit our web site at www.gentekconsult.com.



Gentek's work at Mountain Taurus West Copper Mine includes stabilizing a large landslide by designing an economical flexible pin system (shown at left) that anchored the upper sliding mass to the lower sliding mass. (Picture before operation)