A mine site in Elko, NV was experiencing trouble with operating equipment, specifically the tunnels spread throughout the project site. The tunnel floors were susceptible to trapping moisture, creating saturated soil which was a problematic for the mine workers and maintenance crews. It was a regular occurrence for the mine vehicles to end up stuck in the tunnels from sinking saturated areas.
THE CONSTRUCTION

Mirafi® H₂Ri was placed over the existing soils and expelled into drainage channels on either side of the mine tunnel. The 17 ft. wide roll was a perfect width to cover the roadway and no overlaps were required. Pit run gravel was placed over the H₂Ri. As soon as the gravel was placed, the project team witnessed squeezing of the moisture out of the subgrade soils and into the drainage zones. Consolidation of the soils was occurring before their eyes. With more placement of gravel, the section firmed up and provided a stable base for mine equipment trafficking. Light compaction was achieved through trafficking vehicles over the placed gravel.

THE PERFORMANCE

Following the test tunnel demonstration, several other problematic tunnels were remediated with the Mirafi® H₂Ri, and the moisture management system is also being deployed in new tunnel construction. The H₂Ri provided a solution that granular gravel on its own, chemical stabilization and lime stabilization previously did not conquer. One year following installation, the tunnel sections with Mirafi® H₂Ri were reported to be functioning as intended. Now, the mine owner spends less resources on short term fixes for these problematic areas and had provided the mine team with increased safety during daily operation of the equipment through the mine tunnels.