



Project name: Banbury heritage restoration project

Client: Department of Conservation

Project date: November 2013 – May 2014

Project description

Operational from 1879 to 1890, the Banbury Mine was the first producing mine on the Denniston plateau. An underground coal mine, horses were used to haul coal from the mine workings, stockpiling it for transport as soon as the Denniston incline was completed in 1880. Banbury is now part of the high profile mining heritage site at Denniston. In 2008, the Department of Conservation, in conjunction with the Denniston Heritage Charitable Trust, undertook a project with a view to re-opening parts of the mine and tram line for a tourist heritage operation, now operational as the 'Denniston Experience'.



Geotech's role

Geotech were engaged to assist in the establishment of a 179m second egress for the Denniston Experience, running from the mine to the surface. Work involved:

- Blasting
- Excavation/mucking out
- Roof support and stabilisation (bolting using resin encapsulated anchor rock bolts and cable bolting the overlying rock)
- Installation of timber props and pigsties
- Drill and blast floor dinting to lower the floor down approximately 0.6m and widening (to a width of 1.8m)
- Ground support (resin anchored steel rock bolts, w-straps and props)
- Portal recovery and stabilisation, installation and packing of steel sets and heavy mesh grille
- Installation of a drainage sump and grille to assist with draining accumulated water



Resources applied

A range of resources were mobilized to the Denniston site to assist with the project, including:

- LHD underground boggers
- Compressor
- Water pump
- Hand drills and rock bolting drills
- Ventilation fan



Innovation and performance

Geotech remained responsive to the changing and challenging nature of the contract, working with both the client, WorkSafe NZ High Hazard Unit



staff and the Concessionaire (operating the tourism venture) to ensure minimal disruption to planned tours. Banbury is part of a very high profile conservation and heritage site, which remained open to the public during the time work was being undertaken. Geotech staff liaised with a range of heritage and environmental consultants, to ensure that work was done to a high standard, but was appropriate for this important heritage site. The client indicated that they were pleased with the consistently high standard of workmanship being executed, and the presentation of the worksite. *“The ground support has been carried out by a good team who are experienced in this type of work.”*



WorkSafe New Zealand commented at the completion of the project that *“the [second egress] project has been done to a very high standard and all involved should be very pleased with the results”*.

At the completion of the contract, an independent report recommended the installation of additional props, pigsty and ‘Clock-It’ – instrumentation installed to measure and monitor strata movement. Geotech were engaged to complete this installation, evidence of the good working relationship between the company and client.

Project value
\$300,000

Project reference
Bob Dickson
Department of Conservation

