



Denniston Incline Stonewall Heritage Restoration: Donkey Winch wall rebuild (2023)

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In early 2023 Geotech Limited were awarded a contract to rebuild a failed portion of the Donkey Winch Wall situated high on the Denniston Plateau at the start/loading area of the famous Denniston coal transporting Incline. This site is extremely popular, often cold and bleak, difficult to work on and always rewarding.

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Plate One – The task, failed historic stone wall.

Department of Conservation manage the site under authority from Heritage New Zealand, who administer Class One historic sites such as this. Dominant legislation is the Heritage New Zealand Pouhere Taonga Act (2014). To operate and construct under this regime Geotech had to be cognizant of the following documentation required for the site:-

Heritage NZ archaeological authority 2019
Denniston Stonewalls Archaeological Management Plan 05062019 version 3
Denniston Stonewalls Archaeological Assessment

In addition to the above, reconstruction was to comply with McManus Geotech “Denniston Design Report 2023”



Plate 2. Shotcrete 1st layer



Plate 3. FRS Top Layer



Plate 4. Cloud break, warmed to 8 degrees – last layer of shotcrete



Plate 5. Mesh 661 Galvanised

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Plate 6. Reinforcing mesh 661 galvanised in floor and wall.



Plate 7. Drilling anchors through mesh and first layer of shotcrete.

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Plate 8. Drilling anchor holes.



Plate 9. Reconstructing Stone wall

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Plate10. Stone Mason Gary Swanson (GT Stone) Dean Curry (GT Stone) and Daniel Nelson (Geotech) rock being lowered into place.

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Plate 11. Completed stone wall, Kevin McManus Engineer.