

COPPABELLA COAL MINE EAST PIT PARAMETER

EROSION AND SEDIMENT CONTROL IMPLEMENTATION AND MONITORING PLAN
June 2016

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1 Implementation Plan

The East Pit Parameter (Project) Erosion and Sediment Control (ESC) implementation plan is represented in Figure 1 below.

The ESC plan is based on a combination of erosion, sediment and drainage controls. The primary control to ensure the movement of sediment off lease is through erosion management, in particular Permian rock capping waste dumps to encapsulate exposed dispersive material. Where Permian capping cannot be achieved due to operational requirements the focus is through end of pipe sediment controls.

Erosion Controls

- Permian Capping of approximately 0.5m in heavily scoured areas as highlighted in Figure 1, Zone 2 below.
- Rip/Seeding reworked areas as seen in Figure 1, Zone 1 and 2.

Drainage Controls

- Installation of contour banks are to be installed at pre-determined intervals at a 1% grade to direct water flow towards rock verges which enter into constructed spine drains as seen in Figure 1, Zone 1, 2 and 3.
- 10m Permian rock lined verges capture water flow and direct it into an 8m wide rock lined spine drain. A cross section of this spine drain design is shown in Figure 2.

Sediment Controls

- Sediment basins will be installed at the base of each of the rock lined spine drain and will be designed to capture base load sediment
- Sediment basins will be monitored by installing an indication peg approximately $\frac{3}{4}$ along the length of the trap. Where loading occurs beyond this point a corrective action will be implemented.

Implementation time line;

- Zone 2 Permian capping – Completed by Mid-November 2016
- Water Management structures – Completed by December 2016
- Rip and Seed – Completed by end of January 2017
- Project completed – End of January 2017

2 Inspection and Maintenance Plan

The project will be inspected bi-annual, with a major inspection completed post wet season to highlight any required remediation works for that year. A minor inspection plan will then be completed pre wet season ensuring that any identified remediation requirements have been completed. Actions from inspections will be entered into the Peabody action tracking system.

2.1 Major Maintenance Inspection

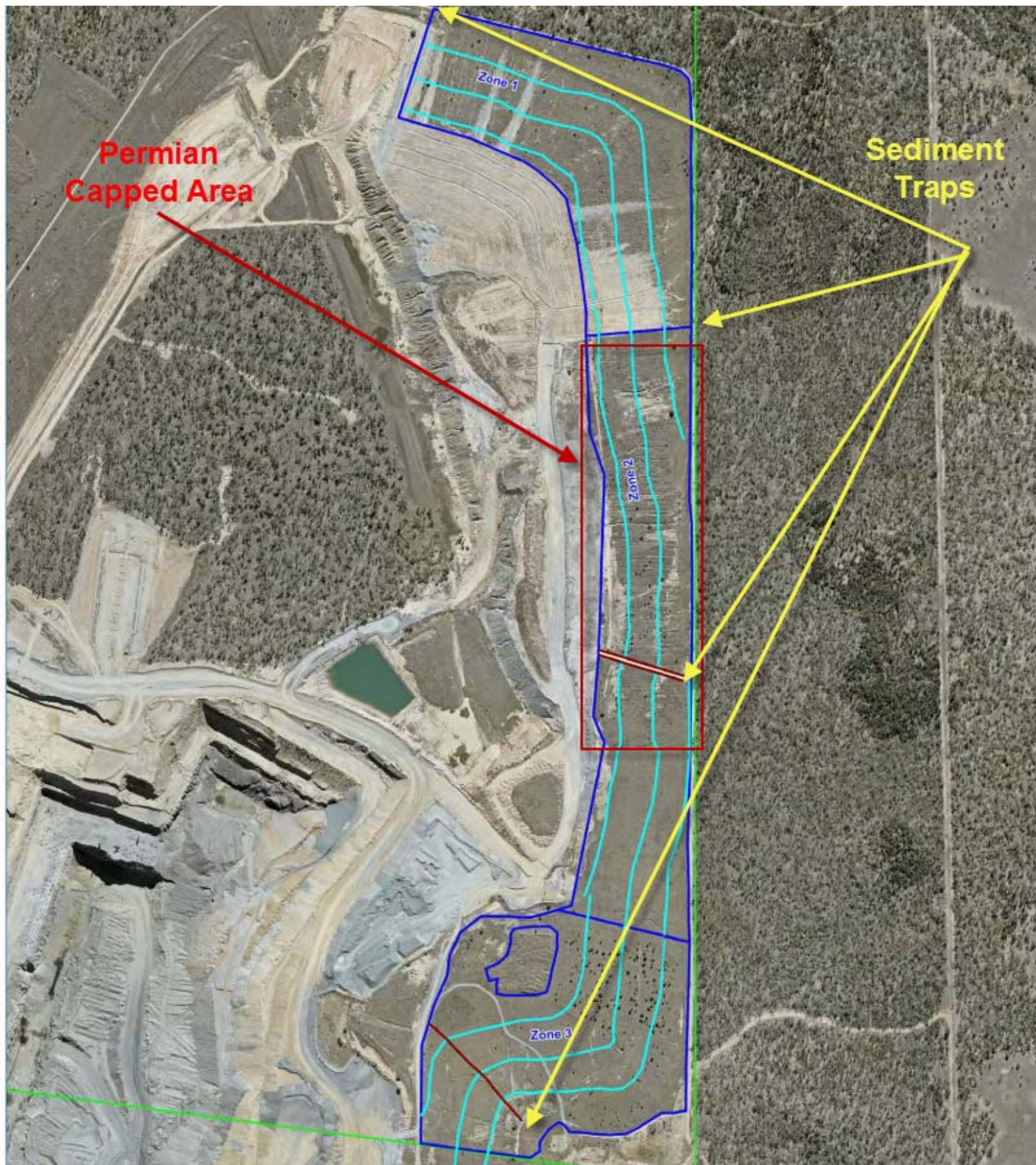
A major maintenance inspection will be conducted post wet season (May), to ensure the structural integrity has been maintained and adequate sediment capacity is present.

- Contour banks, rock verges and down drains will be inspected for tunnel and rill erosion, remediated as required.
- Sediment Basins will be desilted once loading has reached the indication peg (approximately $\frac{3}{4}$ along the length of the trap).
- Riprap remains in place and operational, to be replaced where necessary.

2.2 Minor Maintenance Inspection

A minor maintenance inspection will be completed pre wet season (November) or on completion of any actions from the Major inspection. The minor inspection will allow time for any minor remediation works to be completed prior to the wet season.

Figure 1 – East Pit Parameter – Project area (Conceptual design)



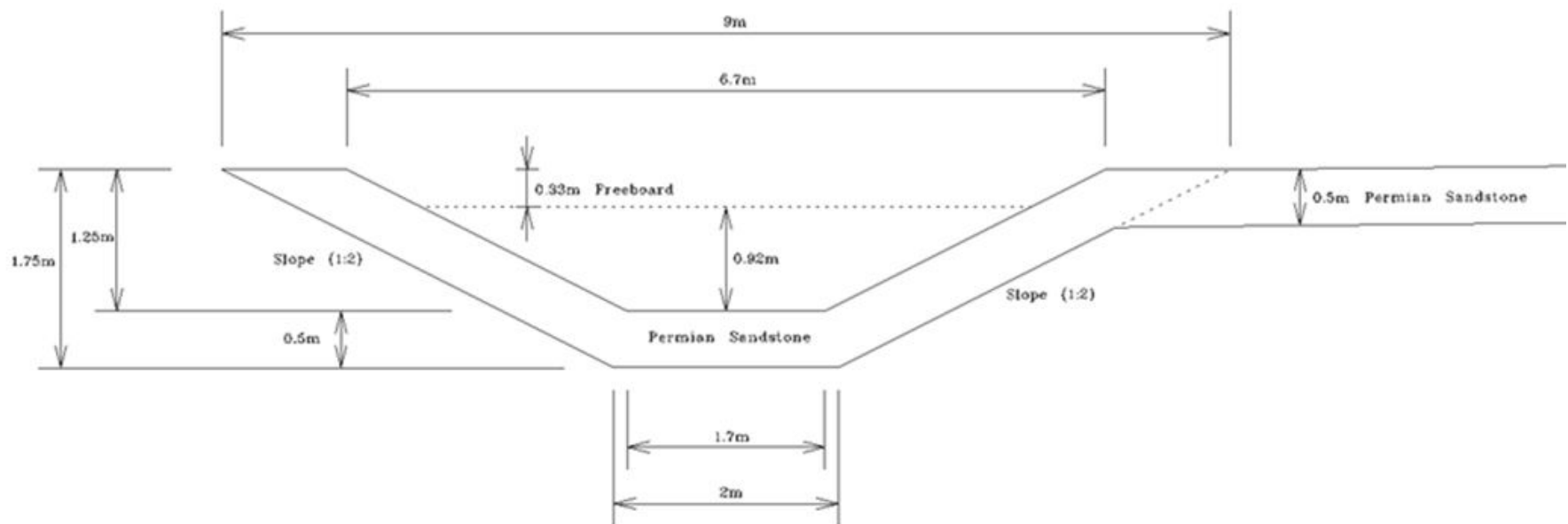


Figure 2 – Down-Drain Specifications