

The main elements proposed for the Modification include the following:

- an increase in the approved ore processing rate from 32 Mtpa to 35 Mtpa;
- upgrades to Cadia East mining and ore processing infrastructure to enable capacity to accommodate a mining, materials handling and processing rate of 35 Mtpa;
- continued deposition of tailings into the NTSF, STSF and PTSF;
- construction works on the NTSF and STSF, including;
 - changes to wall construction designs of the NTSF and STSF embankments and associated disturbance;
 - implementation of NTSF repair works to restore the embankment by encapsulation of the slumped section¹;
 - construction of centreline lifts at the NTSF and STSF embankments in accordance with the findings of the Independent Technical Review Board's (ITRB) investigation into the NTSF slump;
- additional pre-conditioning of the overburden above the Cadia East orebody, to be achieved via direction drilling from the surface; and
- construction and operation of a Sodium Hydrosulphide Solutioning Plant.

Key elements of the Modification are shown on Figure 1-4.

The Modification would not change the following components of the approved CVO:

- mining method;
- mine life (approved until 2031);
- Cadia East underground mine footprint/dimensions;
- predicted extent of final subsidence zone;
- maximum approved heights of the TSF embankments;
- waste rock management;

- method of concentrate transport to CVO Dewatering Facility (i.e. via pipeline);
- electricity supply infrastructure;
- water supply and storage infrastructure; and
- operational hours.

1.6 Structure of the Modification Report

This Modification Report is structured as follows:

Section 1	Provides an overview of the existing/approved CVO and an overview of the proposed Modification.
Section 2	Describes the Modification.
Section 3	Provides a description of the strategic context for the Modification.
Section 4	Contains a description of the statutory context in relation to the Modification.
Section 5	Describes the stakeholder consultation undertaken for the Modification.
Section 6	Details the existing environment and provides an assessment of potential environmental impacts associated with the Modification.
Section 7	Provides a description of the justification for the Modification and an evaluation of merits.
Section 8	References.

Attachment A, and Appendices A to I provide supporting information as follows:

Attachment A	Summary Comparison Table – Cadia Valley Operations (CVO) Cadia East Project and Modifications 1-14
Appendix A	Surface Water Assessment
Appendix B	Groundwater Review
Appendix C	Biodiversity Development Assessment Report

¹ A limited breakthrough of tailings occurred at the NTSF in March 2018.