

CANNINGTON TAILINGS FACILITY INFORMATION

Tailings Storage Facility (TSF) Information (GISTM Requirement 15.1 B1)

Cannington is located approximately 800 km west of Townsville and 190 km south of Cloncurry in the north-west of Queensland, Australia. Key activities on site are mining and processing of silver-lead-zinc ore from an underground deposit.

The Cannington TSF consists of a three part ‘turkey’s nest’ (Cell 1, Cell 2 and Cell 3) providing containment for tailings from the process plant, as shown in Figure 1.

The topography of the site is generally flat and slopes gently towards the south, with drainage lines flowing into the Hamilton River and Trepell Creek located to the west and east of the TSF respectively.

An effluent leachate dam is located to the west of the TSF, an offline water storage facility to the east, and a decant dam for recycling of decant water from the tailings dam is located to the south of the TSF.



TAILINGS FACILITY INFORMATION



Cannington TSF (GISTM Requirement 15.1 B4)

Cell 1 started construction in 1997 and was completed in 1998, Cells 2 and 3 were constructed in 2002 and 2013 respectively. Each cell has been raised allowing for continued operation with cycling deposition between the Cells.

The Cells are constructed from borrow clay fill located on site to form the starter embankments and successive raises. Seepage collection systems have been incorporated for each cell and all cells with the exception of Cell 3 are at final height except for Cell 3. Monitoring of the cells incorporates visual inspections, monitoring of piezometers installed in the embankment and regular interferometric synthetic aperture radard (InSAR) and drone surveillance.

Description		Year	Method	Height (toe to crest) [m]	Reduced Level (RL) m Mine Grid
Cell 1	Starter	1997	Starter	6	1,260.1
Cell 1	Raise 1	1999	Centreline	9	1,263.1
Cell 2	Starter	2002	Starter	7	1,266.1
Cell 1	Raise 2	2005	Centreline	12	1,266.1
Cell 2	Raise 1	2006	Downstream	10	1,269.1
Cell 1	Raise 3	2009	Upstream	15	1,269.1
Cell 2	Raise 2	2012	Upstream	13	1,272.1
Cell 3	Starter	2014	Starter	8	1,267.7
Cell 1	Raise 4	2016	Upstream	18	1,272.3
Cell 2	Raise 3	2019	Upstream	17	1,275.7
Cell 2	Spillway	2019	Spillway	16	1,275.3
Cell 2	Buttress E and W	2019	Buttress	10	1,269.1
Cell 3	Raise 1	2020	Upstream	11	1,271.2
Cell 3	Spillway	2020	Spillway	11	1,270.6
Cell 1	Buttress	2020	Buttress	14	1,268.6
Cell 1	Raise 5	2023	Upstream	21	1,275.7

Table 1: Cannington TSF Construction History