NiWest Nickel Cobalt Project

Proposal Content Document

Table 1: NiWest Nickel Cobalt Project - general proposal content description

Proposal title	NiWest Nickel Cobalt Project
Proponent name	Alliance Nickel Ltd
Short description	Alliance Nickel plans to develop a greenfield nickel and cobalt mine, the NiWest Nickel Cobalt Project, in the central southern area of Western Australia, approximately 50km southeast of Leonora. The primary product, nickel sulphate, will be exported for use in the manufacture of batteries for electric vehicles, in line with the global trend towards net zero of greenhouse gas emissions. This Proposal includes the following key features: • The development of an open pit mine (below the water table) for the Mt Kilkenny deposit and mining of nickel laterite ore. • Treatment of ore via a heap leach facility with associated water management and irrigation systems. • Production of nickel and cobalt sulphates. • Water treatment and wastewater evaporation system. • Permanent in-pit storage of process wastes - leached ore ('ripios') and process plant residue. • Infrastructure to support the mining and processing facilities, including roads, transmission lines, pipelines and conveyors. • A calcrete quarry. • Two borefields (Depot Springs South and Sandstone South) and a pipeline corridor. • Non process infrastructure including the accommodation camp, offices, stores, maintenance facilities, domestic wastewater systems, fire systems and potable water systems. All activities will occur within a Development Envelope (DE) of 11,497 ha and will require land clearing of up to 4,253 ha.

Table 2: NiWest Nickel Cobalt Project - proposal content elements

Proposal element	Location / description	Maximum extent, capacity or range
Physical elements		
Nickel / cobalt mine elements including: • Open pits; • Haul and access roads; • Waste rock landforms; • ROM pad; • Residue and ripios storage; • Topsoil stockpiles, and • Dewatering infrastructure.	Figures 2-1, 2-4, 2-5 and 2-6, Referral Supporting Document (RSD)	Clearing of up to 2,257 ha of native vegetation within an overall DE of 11,497 ha.
Process plant including: • Ore stockpiles; • Crushing and screening plant; • Heap leach pad; • Sulphuric acid plant; • Process plant; • Calcrete stockpile, and • Water storage and evaporation ponds.		
Supporting infrastructure including: • Accommodation camp; • Domestic wastewater treatment system, and • Access and haul roads.		
Calcrete quarry elements including: • Open pits; • Haul and access roads; • Waste rock landforms; • Topsoil stockpiles, and • Dewatering infrastructure.		

Proposal element	Location / description	Maximum extent, capacity or range
Borefield elements including: • Groundwater abstraction bores, and • Pipeline and access corridors.	Figures 2-2 and 2-3, RSD	Clearing of up to 1,996 ha of native vegetation within an overall DE of 11,497 ha.
Operational elements		
Pit dewatering	-	1.5 GL/a
Sulphuric acid production and usage	Figure 2-6, RSD	1.8 Mt/a
Calcrete mining and use in plant for neutralisation	Figures 2-1 and 2-4, RSD	1.7 Mt/a
Mineral processing	Figure 2-4, RSD	2.6 Mt/a
Backfill of ripios and residue	Figure 2-5, RSD	3.5 Mt/a
Borefield abstraction	Figures 2-2 and 2-3, RSD	6 GL/a
Proposal elements with greenhouse gas emissions		
Operation elements:		
Scope 1	440,000 t CO2e/a	
Scope 2	Nil	
Scope 3	73,000 t CO2e/a	
Rehabilitation		
Some waste rock landforms will be permanent but most waste rock will be utilised as backfill or as capping over backfilled ripios and residue from the process plant.		
Commissioning		
Commissioning of the processing facility to be undertaken subject to operational designs above.		
Decommissioning		
Removal of all infrastructure, retention of access roads by agreement.		
Other elements which affect extent of effects on the environment		

Proposal element	Location / description	Maximum extent, capacity or range
Proposal time	Maximum project operating life	14 years