NSW GOVERNMENT

NSW Resources Regulator

ARR0001486

BENGALLA MINE ANNUAL REHABILITATION REPORT

Monday 1 January 2024 to Tuesday 31 December 2024

Summary table

DETAIL	
Mine	Bengalla Mine
Reference	ARR0001486
Annual report period commencement date	Monday 1 January 2024
Annual report period end date	Tuesday 31 December 2024
Forward program	FWP0001391
Mining leases	ML 1469 (1992), ML 1397 (1992), ML 1729 (1992), ML 1450 (1992), ML 1711 (1992), ML 1728 (1992), ML 1796 (1992)
Lease holder(s)	Bengalla Mining Company Pty Limited
Contact	Craig White
Date of submission	Friday 9 May 2025

Important

The department may make the information in your report and any supporting information available for inspection by members of the public, including by publication on its website or by displaying the information at any of its offices. If you consider any part of your report to be confidential, please communicate this to the department via the message function on this submission within the NSW Resources Regulator Portal.

Mine details

Project description

Bengalla Mine (Bengalla) is located approximately 4 km west of Muswellbrook and is operated by Bengalla Mining Company Pty Limited (BMC) on behalf of the Bengalla Joint Venture (New Hope Bengalla Pty Limited (80%) and Taipower Bengalla Pty Limited (20%)). Bengalla operates in accordance with development consent State Significant Development 5170 (SSD 5170) which was granted on 3 March 2015 and has been modified on five occasions to date. SSD 5170 (as modified) provides approval for open cut multi-seam coal mining operations until 28 February 2039. Mining advances towards the west, extracting up to 15 Mtpa of ROM coal utilising dragline and truck and shovel mining methods. Progressive rehabilitation of the Overburden Emplacement Area (OEA) is undertaken as the final landform is achieved. ROM coal is processed at the Bengalla CHPP to produce a thermal coal product which is then loaded onto trains at the rail loading facility for transport.

Life of mine

44 years

Current development consents, leases and licences

Development consents granted under the *Environmental Planning and Assessment Act 1979*

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Authorisations covering the mining area granted under the *Mining Act 1992*

ML 1469 (1992), ML 1397 (1992), ML 1729 (1992), ML 1450 (1992), ML 1711 (1992), ML 1728 (1992), ML 1796 (1992)

Any other approvals, licences, or authorities issued by government agencies that are relevant to the progress of mining operation and rehabilitation activities

EPBC Approval 2012/6378
Environment Protection Licence (EPL) 6538

Summary of the scope and/or purpose of the new applications or modifications to existing approvals (if applicable)

There have been no changes to the status of approvals during the annual reporting period.

Changes to land ownership and land use

There have been no changes to BMC land ownership and related land use during the Reporting Period relevant to SSD-5170 (as modified). Certain private properties have rights to acquisition or mitigation upon request to BMC.

Surface disturbance and rehabilitation activities during the reporting period

Surface disturbance and rehabilitation activities that were conducted and an analysis of the progress against the rehabilitation schedule

Mining operations continued to progress to the west as approved by SSD-5170 (as modified). The main OEA is located to the east of the active mining area and continued to advance to the west. Surface disturbance activities relevant to Bengalla and in accordance with SSD-5170 (as modified) occurred. During the Reporting Period clearing towards the west is ongoing in association with ancillary mining activies and water management infrastructure. Large-scale remediation, rehabilitation and revegetation works are ongoing at Bengalla. The Year 1 Forward Work Program identified a 10ha target area for rehabilitation of HDWV. The program also included the ongoing retrofit of HDWV on the Eastern face of existing rehabilitated areas of the OEA. Since the start of the campaign extensive shaping was undertaken within the target area planned for rehabilitation. A total of 137k bulk cubic metres were pushed to final landform height during the reporting period. However works were ongoing at the end of the reporting period due to challenges relating to radio and global positioning system (GPS) communication. The progressive installation of HDWV primarily over existing rehabilitation areas across the southern and eastern OEA over a five year-period from 2020-2024 is continuing. In areas of virgin surface disturbance where vegetation with high value ecological features are recognised these are salvaged and relocated for utilisation in the rehabilitation.

Rehabilitation planning activities that were conducted, including any specialist studies

The Rehabilitation Objectives Statement and Final Landform Rehabilitation Plan was approved by the Resources Regulator on 22 December 2023. The RMP was updated and uploaded to the Bengalla website on 19 January 2024. The Bengalla Rehabilitation Strategy as required under Condition 47, Section 3 of SSD-5170 (as modified) was submitted on 1 March 2024 and approved by the Secretary on the 6 August 2024. The Rehabilitation Strategy was prepared in consultation with DPE Water (Water Group within the Department), Biodiversity & Conservation Division, MSC and the CCC. The existing landform has created interruptions to the communications link for radio and GPS systems. BMC have commissioned a new communications system for the rehabilitation fleet to ensure compliance with design and approved final landform. During the next reporting period, the Bengalla Rehabilitation Monitoring Program will be reviewed and updated to improve the quality and validity of the collected datasets. This will enable Bengalla to effectively monitor the progress of completed rehabilitation over time.

Overview of subsidence repair and/or remediation works undertaken

No underground mining is undertaken at Bengalla and hence no subsidence repairs were undertaken during the reporting period.

Overview of rehabilitation management and maintenance activities

Ongoing weed and feral animal inspections and control programs continued to be undertaken in accordance with the Biodiversity Management Plan and Rehabilitation Management Plan. A pig control program was conducted throughout 2024 at various locations across Bengalla. A total of 11 pigs were trapped utilising a penning system using grain and molasses then disposed of humanely. Two baiting programs focussing on wild dogs and foxes were undertaken in Spring and Autumn. During the autumn baiting program, results indicate 41 takes were by target species being foxes and no wild dog takes. During the spring baiting program, a total of 25 takes were by target species being foxes. No wild dog takes were recorded. Routine soil testing has been undertaken to identify areas of sodicity and any requirements for amelioration. Ongoing erosion and sediment control works identified during routine inspections were completed throughout 2024.

Details of any rehabilitation actions taken as required by any letters, notices or directions issued by government agencies, including the NSW Resources Regulator

In July 2024 the NSW Resources Regulator attended Bengalla and completed a Revegetation Targeted Assessment Program (TAP) on rehabilitation at Bengalla. The assessment provided recommendations for areas of improvement to support revegetation objectives including updates to the existing Rehabilitation Risk Assessment, RMP, TARP and formalise rehabilitation implementation works.

Details of any rehabilitation areas that have achieved the final land use

Whilst monitoring has demonstrated that areas of rehabilitation are trending towards the final land use objectives and completion criteria, no areas of rehabilitation have achieved Rehabilitation Completion during the Reporting Period.

Key production milestones

MATERIAL	UNIT	FWP0001391 YEAR 1	THIS REPORT
Stripped topsoil (if applicable)	(m^3)	44,600	162,008
Rock/overburden	(m^3)	60,024,038	58,387,493
Ore	(Mt)	13.72	13.74
Reject material[1]	(Mt)	3.25	3.74
Product	(Mt)	11.27	10.51

[1] This includes coarse rejects, tailings and any other wastes resulting from beneficiation.

Disturbance and rehabilitation statistics

Current disturbance and rehabilitation progression

	ELEMENT	UNIT	THIS REPORT
A1	Total disturbance footprint – surface disturbance	(ha)	1,522.84
B	Total active disturbance	(ha)	1,197.34
C	Rehabilitation – land preparation	(ha)	0
D	Ecosystem and land use establishment	(ha)	325.49
E	Ecosystem and land use development	(ha)	0
F	Rehabilitation completion	(ha)	0

Rehabilitation key performance indicators (KPIs)

	ELEMENT	UNIT	THIS REPORT
G	New disturbance area	(ha)	85.24
H	New rehabilitation commenced during annual reporting period	(ha)	0
I	Established rehabilitation	(ha)	0
J	Annual rehabilitation to disturbance ratio	%	0
K	Rehabilitated land to total mine footprint	%	0

Progressive achievement of established rehabilitation

	ELEMENT	UNIT	THIS REPORT
L	**Established rehabilitation for agricultural final land uses**	%	0
M	**Established rehabilitation for native ecosystem final land uses**	%	0
N	**Established rehabilitation for other/non-vegetated final land uses**	%	0

Variation to the rehabilitation schedule

Identify the components of the most recent forward program that were not achieved

Rehabilitation at Bengalla is undertaken in accordance with SSD-5170 (as modified), the Forward Program and the life of mine rehabilitation schedule subject to operational requirements. No new rehabilitation was completed during the Reporting Period. The Year 1 Forward Work Program identified a 10ha target area for rehabilitation of HDWV. The program also included the ongoing retrofit of HDWV on the Eastern face of existing rehabilitated areas of the OEA. Since the start of the campaign extensive shaping was undertaken within the target area planned for rehabilitation. A total of 137k bulk cubic metres were pushed to final landform height during the reporting period. However works were ongoing at the end of the reporting period due to challenges relating to radio and global positioning system (GPS) communication.

Key factors that delayed progressive rehabilitation

The existing landform created interruptions to the communications link for radio and GPS systems resulting in an inability to accurately achieve final landform shaping tolerances as well as required necessary safety requirements. This was identified early in the reporting period, and BMC has since comissioned a new communications system for the rehabilitation fleet to ensure compliance with design and approved final landform. In the interim rehabilitation works were progressed as far as reasonably poracticable including: › Establishing access to the work area and HDWV retrofit program; › Recovery program completed to reclaim clay topsoil for use in Dry Creek reinstatement; › Target to complete the 2024 landform in 2025 following resolution of communication issues; and › HDWV program continuing.

Outline actions that will be included in the forward program and carried out to minimise disturbance and undertake progressive rehabilitation as far as reasonably practical

Rehabilitation at Bengalla is undertaken progressively and as soon as practicable after the completion of surface preparation. Inert capping material and topsoil is spread over areas to be rehabilitated, to maintain topsoil quality and take advantage of native seed banks if present. This minimises the areas of disturbed land; reduces future rehabilitation liabilities; minimises visual impacts and helps suppress the potential for wind-blown dust and erosion. Seeding of a rehabilitation area commences as soon as practicable after scarification, if required, tube stock may be planted. Seeding and tube stock planting is preferably sown in Autumn and/or Spring when there is seasonal rain with cooler growing conditions. A cover crop may be applied if meteorological or seasonal conditions are not conducive to rehabilitation species seeding or the pasture rehabilitation species seed is unavailable.

Rehabilitation monitoring and research findings

Rehabilitation monitoring

The rehabilitation monitoring carried out in the annual reporting period

Rehabilitation at Bengalla is carried out progressively and as soon as reasonably practicable following disturbance. The Rehabilitation Monitoring and Audit 2024 (Koru Environmental, 2025). There were varying levels of success recorded across the transects , influenced by the different revegetation techniques and approaches implemented. Additional revegetation works or infill planting campaigns will be required in most of these areas to achieve the outcomes of the Rehabilitation Objectives and Completion Criteria. During the next reporting period, the Bengalla Rehabilitation Monitoring Program will be reviewed and updated to improve the quality and validity of the collected datasets. This will enable Bengalla to effectively monitor the progress of completed rehabilitation over time.

Status of performance against rehabilitation objectives and rehabilitation completion criteria

The monitoring program that has been implemented

The Annual Rehabilitation Monitoring Report includes an assessment of rehabilitation performance considering the rehabilitation objectives, proposed rehabilitation completion criteria and final landform design described in the RMP. The report recommended remedial actions including: › Erosion repairs required at contour banks, drainage channels and more generally across the rehabilitated landform; › Priority areas and species for any upcoming weed control programs; › Continued implementation of the HDWV program including infill planting; › Increased focus on habitat augmentation and placement of features; and › Continued implementation of the Annual Monitoring Program to align with the RMP and rehabilitation objectives. Generally, the completed rehabilitation areas are progressing towards the achievement of the rehabilitation objectives, proposed rehabilitation completion criteria and final landform design described in the RMP.

Are all rehabilitation areas in Landform Establishment phase or higher represented in the monitoring program to assess performance against the rehabilitation objectives and approved or, if not yet approved rehabilitation completion criteria and final landform and rehabilitation plan?

Yes

Year rehabilitation areas will be included as part of the monitoring program

An appraisal of whether rehabilitation is moving towards achieving the proposed rehabilitation objectives, approved or, if not yet approved, rehabilitation completion criteria and final landform and rehabilitation plan as soon as reasonably practicable.

Generally, the completed rehabilitation areas are progressing towards the achievement of the rehabilitation objectives, proposed rehabilitation completion criteria and final landform design described in the RMP. This has been influenced by As noted above, there are some areas which require further attention and are subject to ongoing work programs.

Appraisal description

Rehabilitation is moving towards achieving the final land use as soon as reasonably practicable.

Rehabilitation monitoring program findings

Rehabilitation monitoring at Bengalla is undertaken annually through the implementation of the following: › A transect-based monitoring program; and › A rehabilitation walkover audit. During the Reporting Period, rehabilitation monitoring was undertaken during October 2024 to represent the 2024 monitoring period. The program focussed on the continued long term monitoring program in the OEA rehabilitation areas of pasture and HDWV rehabilitation, including areas retrofit with HDWV. Large-scale remediation, rehabilitation and revegetation works are ongoing at Bengalla to establish HDWV across the southern and eastern OEA over a five year-period from 2020-2024. This program will be ongoing in 2025 due to delays experienced during the reporting period. Visual inspections of rehabilitation areas are undertaken to confirm appropriate landform construction vegetative cover, incidents of weeds and feral animals, water storages and quality, evidence of erosion and any visible evidence of hazards or potential risks to successful rehabilitation.

Performance issues and their causes including identification of any knowledge gaps that must be addressed

The Bengalla Rehabilitation Strategy as required under Condition 47, Section 3 of SSD-5170 (as modified) was submitted on 1 March 2024 and approved by the Secretary on the 6 August 2024. The Rehabilitation Strategy was prepared in consultation with DPE Water (Water Group within the Department), Biodiversity & Conservation Division, MSC and the CCC.

Outcomes of rehabilitation research and trials

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
RRT0001031	Tailings to Topsoil	To investigate the potential to improve soil quality through direct tailings emplacement.	Research into the effectiveness of blending tailings and soils has commenced with germination and ex-situ glasshouse plant growth trials conducted at the University of Newcastle. To assess in-situ conditions, a plant growth trial is planned to be conducted at Bengalla. Tailings are a source of carbon and so have potential to improve soil quality by increasing carbon content.	2 Jul 2026	Ongoing	Yes
RRT0001032	Landscape Evolution Modelling	To demonstrate that the final landform is long term "safe and stable" and address any long term erosion and stability risks.	BMC is investigating Landscape Evolution Modelling (LEM) or similar methods. Unless the Resources Regulator directs or agrees otherwise: (a) LEM or similar methods will be used to evaluate the long-term erosion rates by modelling erosion and deposition over time; and (b) a monitoring program (excluding surface variations not related to erosion) will be formulated to inform modelling output.	2 Jul 2026	Ongoing	Yes

Outcomes of completed trials and research

N/A

Attachment 1 – Reporting Definitions

REPORTING CATEGORY		DEFINITION
A1	Total disturbance footprint – surface disturbance	All areas within a mining lease that either have at some point in time or continue to pose a rehabilitation liability due to surface disturbance activities. The total disturbance footprint is the sum of the total active disturbance, decommissioning, landform establishment, growth medium development, ecosystem and land use establishment, ecosystem and land use development and rehabilitation completion (see definitions below). Underground mining operations should not include the footprint of underground mining areas/subsidence management areas in the total disturbance footprint.
A2	Underground Mining Area	Underground mining operations areas/subsidence management areas.
B	Total active disturbance	Includes on-lease exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste rock emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped) and temporary stabilised areas (e.g. areas sown with temporary cover crops for dust mitigation and temporary rehabilitation).
C	Rehabilitation – land preparation	Includes the sum of all disturbed land within a mining lease that have commenced any, or all, of the following phases of rehabilitation – decommissioning, landform establishment and growth medium development. Refer to the glossary of terms in this document for the definition of these phases of rehabilitation.

REPORTING CATEGORY		DEFINITION
D	Ecosystem and land use establishment	Includes the area which has been seeded/planted with the target vegetation species for the intended final land use. However, vegetation has not matured to a stage where it can be demonstrated that it will be sustainable for the long term and or require only a maintenance regime consistent with target reference/analogue sites. Typically, rehabilitation areas would be in this phase for at least two years (and usually more) before rehabilitation can be classified as being in the ecosystem and land use development phase. This phase does not apply to infrastructure areas that are being retained as part of final land use for the site.
E	Ecosystem and Land Use Development	Rehabilitation has matured to a level where target revegetation outcomes are on a trajectory towards meeting the final rehabilitation objectives and rehabilitation completion criteria (as verified by monitoring). This phase includes infrastructure areas that are to be retained for an approved post mining land use, following completion of all necessary measures to render the infrastructure fit for this purpose (for example structural integrity).
F	Rehabilitation Completion	The NSW Resources Regulator has determined in writing that the mining area has achieved the approved rehabilitation objectives and approved rehabilitation completion criteria and final landform and rehabilitation plan following the submission of *Form: ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate and/or notification of mine or petroleum site closure.*
G	New active disturbance area	The area of any new active disturbance that has been created during the annual reporting period (definition A1 in Table 5).
H	New rehabilitation commenced during annual reporting period	The sum of any new rehabilitation commenced in the annual reporting period. These areas may be in the rehabilitation land preparation phase or the ecosystem & land use establishment phase (definitions C and D in Table 5).
I	Established rehabilitation (hectares)	The total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5).

REPORTING CATEGORY		DEFINITION
J	Annual rehabilitation to disturbance ratio	The rehabilitation to disturbance ratio (H/G) indicates how many hectares of new rehabilitation are undertaken for each hectare of land disturbed during the year. A ratio of 1/1 indicates that the area of new rehabilitation and disturbance in that year are the same.
K	% Rehabilitated land to total mine footprint	The proportion of the total mine footprint (area of land that has been disturbed by past or present surface disturbance activities) that has established rehabilitation (I/A1 x 100). For open cut mining, the proportion of the total mine footprint verified to be “established rehabilitation” should substantially increase as an operation progresses towards mine closure.
L	Established rehabilitation for agricultural final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5) that have been returned to an agricultural final land use.
M	Established rehabilitation for native ecosystem final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or rehabilitation completion phase (definitions E & F in Table 5) that have been returned to native ecosystem final land use.
N	Established rehabilitation for other/non-vegetated final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5) that have been returned to other/non-vegetated final land use.

Attachment 2 – Definitions

WORD	DEFINITION
Active	In the context of rehabilitation, land associated with mining domains is considered 'active' for the period following disturbance until the commencement of rehabilitation.
Active mining phase of rehabilitation	In the context of rehabilitation, the active mining phase of rehabilitation constitutes the rehabilitation activities undertaken during mining operations such as salvaging and managing soil resources, salvaging habitat resources, and native seed collection. This phase also includes management actions taken during operations to manage risks to rehabilitation and enhance rehabilitation outcomes such as selective handling of waste rock and management of tailings emplacements.
Analogue site	In the context of rehabilitation, an analogue site is a 'reference site' that represents an example of the defining characteristics (such as vegetation composition and structure or agricultural productivity) of the final land use. Characteristics of analogue sites can be assessed to develop the rehabilitation objectives and completion criteria for final land use domains.
Annual rehabilitation report and forward program	As described in the Mining Regulation 2016.
Annual reporting period	As defined in the Mining Regulation 2016.
Closure	A whole-of-mine-life process, which typically culminates in the relinquishment of the mining lease. It includes decommissioning and rehabilitation to achieve the approved final land use(s).
Decommissioning	The process of removing mining infrastructure and removing contaminants and hazardous materials.
Decommissioning Phase of Rehabilitation	Activities associated with the removal of mining infrastructure and removal and/or remediation of contaminants and hazardous materials. In the context of the rehabilitation management plan this phase of rehabilitation may also include studies and assessments associated with decommissioning and demolition of infrastructure or works carried out to make safe or 'fit for purpose' built infrastructure to be retained for future use(s) following lease relinquishment.

WORD	DEFINITION
Department	The Department of Regional NSW.
Disturbance	See Surface Disturbance.
Disturbance area	An area that has been disturbed and that requires rehabilitation. This may include areas such as on-licence exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped), and areas requiring rehabilitation that are temporarily stabilised (i.e. managed to minimise dust generation and/or erosion).
Domain	An area (or areas) of the land that has been disturbed by mining and has a specific operational use (mining domain) or specific final land use (final land use domain). Land within a domain typically has similar geochemical and/or geophysical characteristics and therefore requires specific rehabilitation activities to achieve the associated final land use.
Ecosystem and Land Use Development	This phase of rehabilitation consists of the activities to manage maturing rehabilitation areas on a trajectory to achieving the approved rehabilitation objectives and completion criteria. For vegetated land uses this phase may include processes to develop characteristics of functional self-sustaining ecosystems, such as nutrient recycling, vegetation flowering and reproduction, and increasing habitat complexity, and development of a productive, self-sustaining soil profile. This phase of rehabilitation may include specific vegetation management strategies and maintenance such as tree thinning, supplementary plantings and weed management.
Ecosystem and Land Use Establishment	This phase of rehabilitation consists of the processes to establish the approved final land use following construction of the final landform. For vegetated land uses this rehabilitation phase includes establishing the desired vegetation community and implementing land management activities such as weed control. This phase of rehabilitation may also include habitat augmentation such as installation of nest boxes.
Exploration	Has the same meaning as that term under the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

WORD	DEFINITION
Final landform and rehabilitation plan	As defined in the Mining Regulation 2016.
Final land use	As defined in the Mining Regulation 2016.
Form and way	Means the form and way approved by the Secretary. Approved form and way documents are available on the Department's website.
Growth Medium Development	This phase of rehabilitation consists of activities required to establish the physical, chemical and biological components of the substrate required to establish the desired vegetation community (including short lived pioneer species. This phase may include spreading the prepared landform with topsoil and/or subsoil and/or soil substitutes, applying soil ameliorants to enhance the physical, chemical and biological characteristics of the growth media, and actions to minimise loss of growth media due to erosion.
Habitat	Has the same meaning as that term under the *Biodiversity Conservation Act 2016* and the *Fisheries Management Act 1994* (as relevant).
Indicator	An attribute of the biophysical environment (e.g. pH, topsoil depth, biomass) that can be used to approximate the progression of a biophysical process. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion (i.e. defined end point). It may be aligned to an established protocol and used to evaluate changes in a system.
Land	As defined in the *Mining Act 1992.*
Landform Establishment	This phase of rehabilitation consists of the processes and activities required to construct the final landform. In addition to profiling the surface of rehabilitation areas to the approved final landform profile this phase may include works to construct surface water drainage features, encapsulate problematic materials such as tailings, and prepare a substrate with the desired physical and chemical characteristics (e.g. rock raking or ameliorating sodic materials).
Large mine	As defined in the Mining Regulation 2016.
Lease holder	The holder of a mining lease.

WORD	DEFINITION
Life of mine	The timeframe of how long a mine is approved to mine, from commencement to closure.
Mine rehabilitation portal	Means the NSW Resources Regulator's online portal that lease holders must use (via a registered account) to: ■ upload rehabilitation geographical information system (GIS) spatial data ■ develop rehabilitation GIS spatial data (using online tracing functions) ■ generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities. Data submitted to the mine rehabilitation portal is collated in a centralised geodatabase for use by the NSW Resources Regulator to regulate rehabilitation performance of lease holders.
Mining area	As defined in the *Mining Act 1992*.
Mining domain	A land management unit with a discrete operational function (e.g. overburden emplacement), and therefore similar geophysical characteristics, that will require specific rehabilitation treatments to achieve the final land use(s).
Mining land	As defined in the *Mining Act 1992.*
Native vegetation	Has the same meaning as that term under section 60B of the *Local Land Services Act 2013.*
Overburden	Material overlying coal or a mineral deposit.
Performance indicator	An attribute of the biophysical environment (for example pH, slope, topsoil depth, biomass) that can be used to demonstrate achievement of a rehabilitation objective. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion, that is, a defined end point. It may be aligned to an established protocol and used to evaluate changes in a system.

WORD	DEFINITION
Phases of rehabilitation	The stages and sequences of actions required to rehabilitate disturbed land to achieve the final land use. The phases of rehabilitation are: ■ active mining ■ decommissioning ■ landform Establishment ■ growth medium development ■ ecosystem and land use establishment ■ ecosystem and land use development.
Progressive rehabilitation	The progress of rehabilitation towards achieving the approved rehabilitation completion criteria. This may be described in terms of domains, phases, performance indicators and rehabilitation completion criteria.
Rehabilitation Completion	The final phase of rehabilitation when a rehabilitation area has achieved the approved rehabilitation objectives and rehabilitation completion criteria for the final land use. Rehabilitation areas may be classified as complete when the NSW Resources Regulator has determined in writing that the relevant rehabilitation obligations have been fulfilled following submission of *Form ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate* application by the lease holder.
Rehabilitation Completion criteria	As defined in the Mining Regulation 2016.
Rehabilitation cost estimate	As defined in the Mining Regulation 2016.
Rehabilitation management plan	As defined in the Mining Regulation 2016.
Rehabilitation objectives	As defined in the Mining Regulation 2016.
Rehabilitation risk assessment	As defined in the Mining Regulation 2016.
Rehabilitation schedule	The defined timeframes for progressive rehabilitation set out in the forward program.

WORD	DEFINITION
Relevant stakeholders	Means any persons or bodies who may be affected by the mining operations, including rehabilitation, carried out on the lease land, and includes: ■ the relevant development consent authority ■ the local council ■ the relevant landholder(s) ■ community consultative committee (if required under the development consent) or equivalent consultative group ■ affected land holder(s) ■ government agencies relevant to the final land use ■ affected infrastructure authorities (electricity, telecommunications, water, pipeline, road, rail authorities) ■ local Aboriginal communities, and ■ any other person or body determined by the Minister to be a relevant stakeholder in relation to a mining lease.
Risk	The effect of uncertainty on objectives. It is measured in terms of consequences and likelihood (AS/NZS ISO 31000:2009).
Secretary	The Secretary of the Department.
Security deposit	An amount that a mining lease holder is required to provide and maintain under a mining lease condition, to secure funding for the fulfilment of obligations under the lease (including obligations that may arise in the future).
Surface disturbance	Includes activities that disturb the surface of the mining area, including mining operations, ancillary mining activities and exploration.
Tailings	A combination of the fine-grained solid material remaining after the recoverable metals and minerals have been extracted from the mined ore, and any process water[2].
Waste	Has the same meaning as that term under the *Protection of the Environment Operations Act 1997*.

[2] Commonwealth of Australia (DITR), 2007. *Tailings Management*.

Attachment 3 – Rehabilitation Complaints

DATE	COMPLAINANT	COMPLAINT DETAILS	RESPONSE DETAILS	STATUS OF RESPONSE	DATE RESPONSE COMPLETED (IF APPLICABLE)

Attachment 4 – Stakeholder consultation

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
21 Feb 2024	CCC	CCC Meeting	Consultation Matters › Completed 20 hectares of rehabilitation in 2023; › Discussed the requirement for Bengalla to revisit all rehabilitation completed for the last 22 years and install High Density Woody Vegetation (HDWV); › Continuing to monitor and maintain areas of HDWV.; ›Forward Program years 1, 2 and 3 plans presented.	na
22 Feb 2023	CCC	CCC Meeting	· Conceptual Final Landform shown; · The Resources Regulator requires a Forward Plan, which was circulated; · The RMP replaces the MOP; · Bengalla is required to 'dehab' all the rehabilitation completed for the last 22 years and install High Density Woody Vegetation (HDWV); · HDWV will be planted at a rate of 400 stems/ha; · Planting is targeted for May/June; and · Continuing to manage the clay and topsoil stockpiles.	Share photos of the rehabilitation areas at BMC. Mainly tube stock plantings
7 Mar 2024	CCC	Email	Consultation on the Bengalla Mining operations-Rehabilitation Strategy	na
28 Aug 2024	CCC	CCC Meeting	› Discussed the progress of the 2024 rehabilitation program including 3.5 ha pasture and 6 hectares of HDWV. › In July 2024 the NSW Resources Regulator attended Bengalla and completed a Targeted Assessment Program (TAP) on rehabilitation at Bengalla. › Described the tiger orchid relocation program completed under the supervision of an ecologist.	NA

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
			› Weed control program underway targeting a variety of species.	
13 Mar 2024	Biodiversity and Conservation Division (BCD)	Via Portal	Consultation on the Bengalla Mining operations-Rehabilitation Strategy	NA
1 Mar 2024	Muswellbrook Shire Council (MSC)	Via Portal	Consultation on the Bengalla Mining operations-Rehabilitation Strategy	na
22 May 2024	CCC	CCC Meeting	› Details provided on topsoil stockpiling and stripping processes; › Rehabilitation preparation underway including planting cover crops to improve the soil quality; › Pest management control programs underway including wild dog baiting and pig trapping.	NA
27 Nov 2024	CCC	CCC Meeting	› Discussed the progress of the 2024 rehabilitation program revised to 10 ha of HDWV. › Update provided on the weed and feral animal control program continuing across the mine site. › Presented an update on upcoming modification including a temporary overburden emplacement area and adjustments to the final landform.	NA
1 Mar 2024	DPE (Water)	Via portal	Consultation on the Bengalla Mining operations-Rehabilitation Strategy	NA
31 Mar 2024	Various	Annual Review	Details rehabilitation activities undertaken during the Reporting Period that support progression towards the final land use and rehabilitation objectives. The Annual Review relevantly includes: · A summary of mining operations; · A summary of rehabilitation	Identifies any emerging issues, recommends appropriate measures to be implemented to improve the environmental performance of the development.

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
			activities; · Environmental performance; · Trends in monitoring data; ·Non-compliances and actions that were or are being taken to ensure compliance; and ·Proposed activities for the next Reporting Period.	
16 Aug 2023	NSW Resources Regulator	Microsoft teams meeting	· Meeting held 16 August 2023 to discuss the submission of spatial data in the Mine Rehabilitation Portal; ·RR requested rehabilitation theme polygons are revised to remove overlaps and to reflect the latest rehabilitation campaign with the original rehabilitation included in the 'additional information' attribute; · RR acknowledges that this action with artificially inflate the KPI disturbance calculation in subsequent Annual Rehabilitation Reports	· A letter was sent by BMC to the RR (dated 4 October 2023) to document and justify the discrepancies in the subsequent Annual Rehabilitation Report (this report)
16 Nov 2023	NSW Resources Regulator	Microsoft Teams	· A meeting was held on 16 November 2023 to discuss the requested changes to the Rehabilitation Objectives and the Final Landform and Rehabilitation Plan	· Spatial data was re-submitted and approved 22 December 2023
22 Nov 2023	CCC	CCC Meeting	· Photos of the HDWV installation areas for 2023 were presented.	NA
24 May 2023	CCC	CCC Meeting 23 November 2022	· Clay and topsoil stockpile to be relocated; · Zone 1 HDWV area planted and progressing well; · Further zones to be completed throughout the year; · Next steps for HDWV installation is weed spraying, ripping then planting of tube stock commencing 29 May 2023; and · Last year 20,000 stems planted and 60,000 stems planned for 2023.	NA

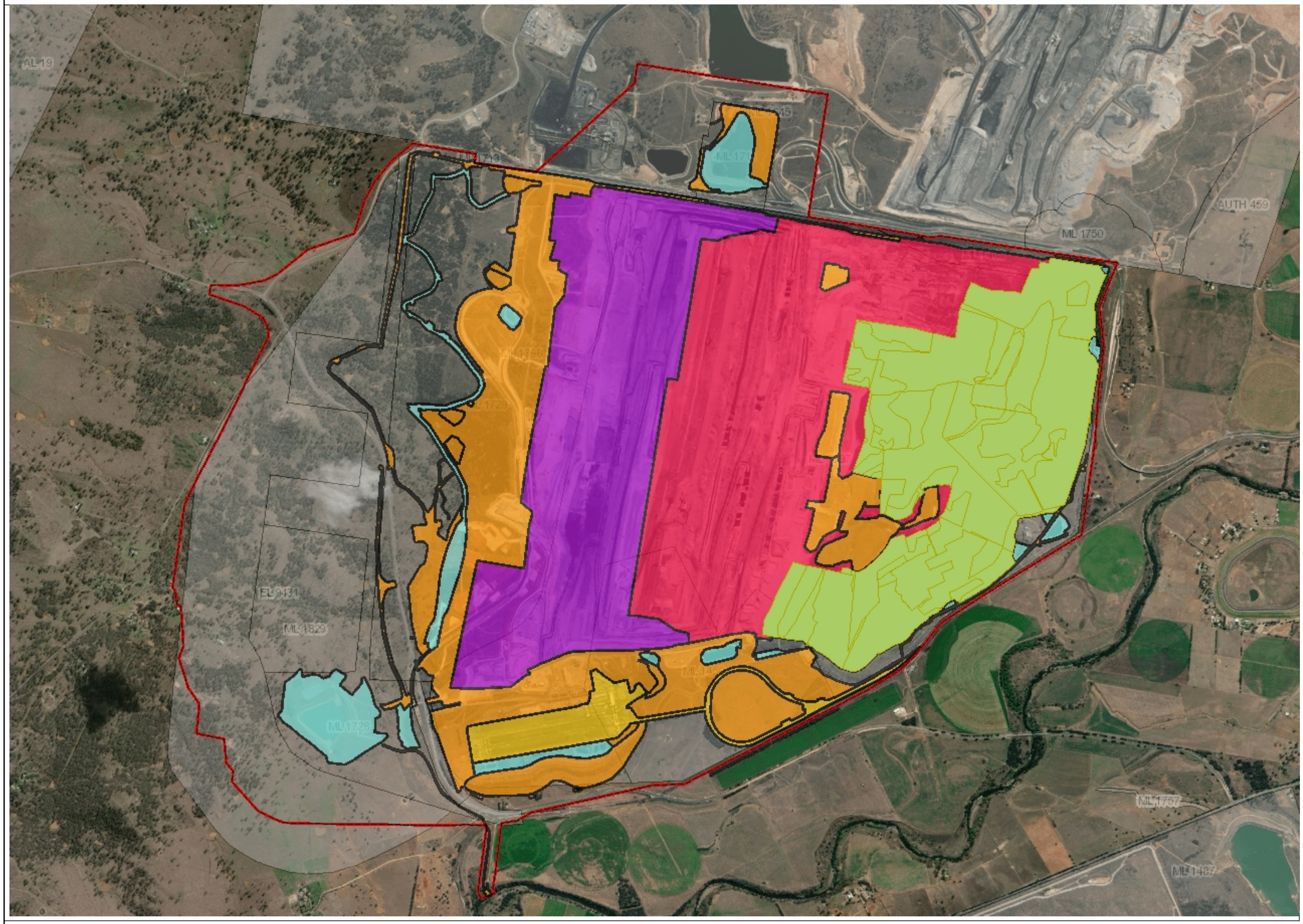
DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
23 Aug 2023	CCC	CCC Meeting	A rehabilitation strategy is required as part of Modification 5 of SSD-5170. This will be provided to the CCC for consultation along with MSC, DPE Water and BCD	NA
30 Mar 2023	Various	Annual Review	Details rehabilitation activities undertaken during the Reporting Period that support progression towards the final land use and rehabilitation objectives. The Annual Review relevantly includes: · A summary of mining operations; · A summary of rehabilitation activities; · Environmental performance; · Trends in monitoring data; ·Non-compliances and actions that were or are being taken to ensure compliance; and ·Proposed activities for the next Reporting Period.	Identifies any emerging issues, recommends appropriate measures to be implemented to improve the environmental performance of the development.

Attachment 5 – Plans

Plan 1A Bengalla Current status of mining and rehabilitation.pdf

Plan 1B.2 Current Landform Contours.pdf

Plan 1A: Current status of mining and rehabilitation



Legend

Rehabilitation
- Decommissioning
- Landform Establishment
- Growth Media Development
- Ecosystem and Land Use Establishment
- Ecosystem and Land Use Development
- Relinquishment (Rehabilitated)
- Rehabilitation Completion

Disturbance
- Beneficiation Facility
- Infrastructure Area
- Other
- Overburden Emplacement Area
- Tailings Storage Facility
- Underground Mining Area (SMP)
- Active Mining Area (Open cut void)
- Water Management Area

- Project Approval Boundary
- MINERALS - CURRENT TITLES
- COAL - CURRENT TITLES
- PETROLEUM-CSG - CURRENT TITL
- World Imagery
- Low Resolution 15m Imagery
- High Resolution 60cm Imagery
- High Resolution 30cm Imagery
- Citations

Notes

Mine Name: Bengalla Mine
Annual Reporting Period: 1/1/24 - 31/12/24
Date of Creation: 06/05/2025
Submission ID 10170 and 10173

1,573.0 0 786.51 1,573.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

© DRE

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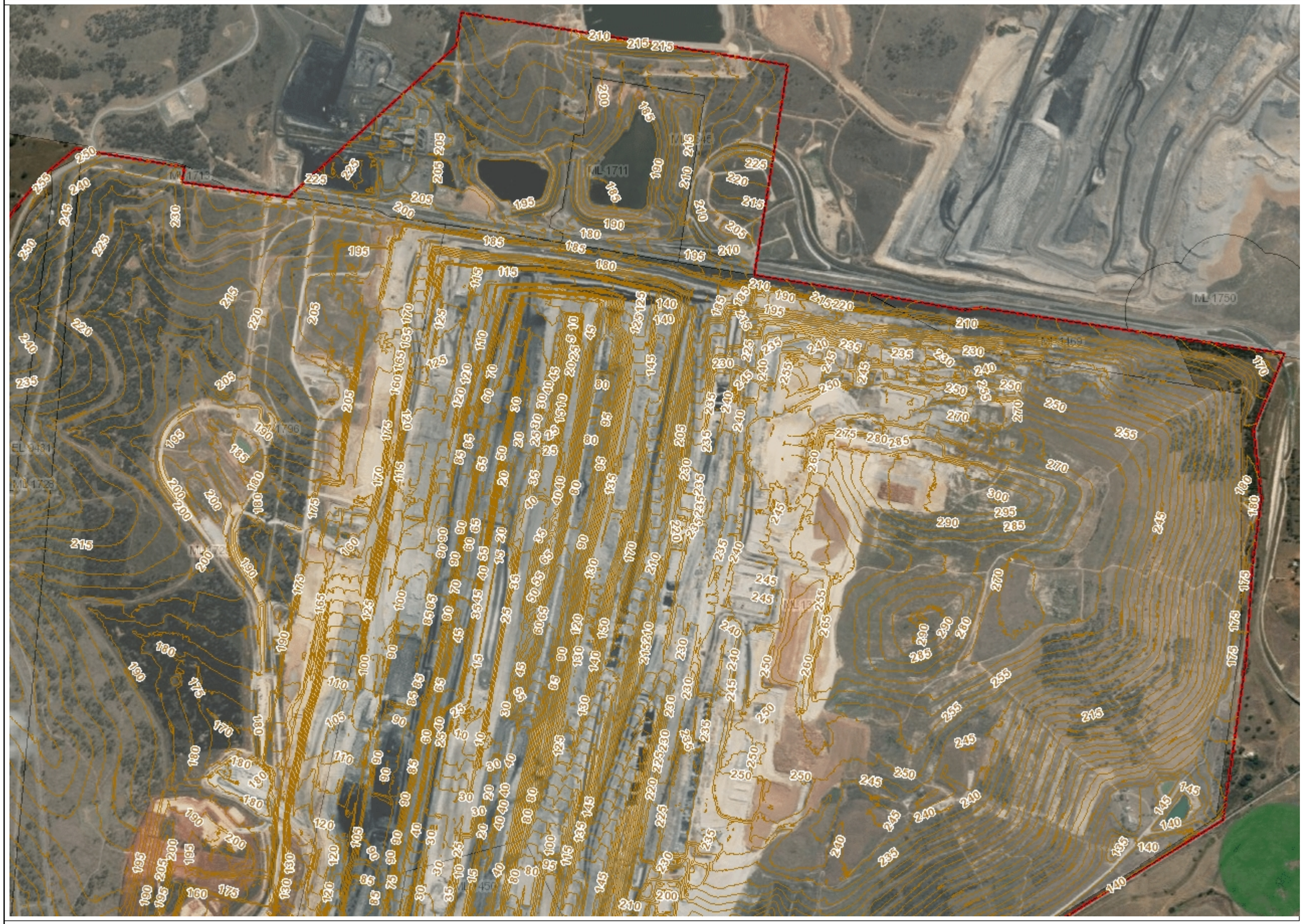
THIS MAP IS NOT TO BE USED FOR NAVIGATION

Plan 1B.1: Current landform contours



Legend

- Current Landform Contours
- Project Approval Boundary
- MINERALS - CURRENT TITLES
- COAL - CURRENT TITLES
- PETROLEUM-CSG - CURRENT TITL
- World Imagery
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- Citations

Notes

Mine Name: Bengalla Mine
Annual Reporting Period: 1/1/24 - 31/12/24
Date of Creation: 06/05/2025
Submission ID 10172

917.2 0 458.62 917.2 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

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Plan 1B.2: Current landform contours

Legend

- Current Landform Contours
- Project Approval Boundary
- MINERALS - CURRENT TITLES
- COAL - CURRENT TITLES
- PETROLEUM-CSG - CURRENT TITL
- World Imagery
- Low Resolution 15m Imagery
- High Resolution 60cm Imagery
- High Resolution 30cm Imagery
- Citations

917.2 0 458.62 917.2 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

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Notes

Mine Name: Bengalla Mine
Annual Reporting Period: 1/1/24 - 31/12/24
Date of Creation: 06/05/2025
Submission ID 10172