

September 2024

## Rehabilitation information release

# Liddell Coal Mine – Approval of rehabilitation completion criteria

### Overview

The Resources Regulator is responsible for compliance and enforcement activities across the mining and exploration industry. The Regulator undertakes risk-based compliance and enforcement activities in relation to obligations under the *Mining Act 1992*. This includes:

- conducting assessments and compliance activities to ensure the rehabilitation of mines is undertaken progressively in accordance with the conditions of mining leases<sup>1</sup> and the requirements of the *Mining Act 1992*
- ensuring that rehabilitation security deposits held by the department cover the full costs in undertaking rehabilitation in the event of default by the mining company
- ensuring that rehabilitation achieves the approved final land use for the mining area –
  - as set out in the rehabilitation objectives and rehabilitation completion criteria statements, and
  - as spatially depicted in the final landform and rehabilitation plan<sup>2</sup>, and
  - as set out in the relevant development consent.

This information release provides information about the approval by the Regulator of the rehabilitation completion criteria statement for the Liddell Coal Mine. The mine is in the upper Hunter Valley about 25 kilometres north-west of Singleton.

### The mine

Liddell Coal Operations is owned through a joint venture between Glencore (67.5%) and Mitsui Matsushima Australia Pty Limited (MMA) (32.5%). Liddell Coal Operations Pty Ltd (Liddell Coal), a wholly owned entity of Glencore, managed the mining operation on behalf of the joint venture. The site is now under the custodianship of the Liddell Coal Closure Project team. The total area of land managed by Liddell Coal is 2,483 hectares (approximately 25 square kilometres).

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<sup>1</sup> The conditions of mining leases relating to environmental protection and rehabilitation are set out in [Schedule 8A of Mining Regulation 2016](#)

<sup>2</sup> This is only a requirement for 'large mines' under Schedule 8A of Mining Regulation 2016. **Large mine** means a mine the subject of one or more mining leases, the carrying out of activities under at least one of which requires an environment protection licence under the *Protection of the Environment Operations Act 1997*.

The Liddell Coal mine is a former open cut mine within the Hunter Valley coal fields. The mine produced thermal and metallurgical coal for about 100 years before ceasing operations in 2023. The mine is now in a closure and rehabilitation phase, however, rehabilitation has been undertaken progressively over the life of the mining operations with more than 1,000 hectares of land already under rehabilitation. It is expected that active rehabilitation activities such as demolition, landform shaping and revegetation will continue for at least the next 3 years. However, final sign-off by the Regulator is not expected to be granted for at least 10 years until it can be demonstrated, through monitoring and modelling, that rehabilitation has matured to a standard required to support the final land uses.

The approved final land uses for the Liddell Coal Mine includes a mix of native ecosystems, agricultural grazing, rehabilitation biodiversity offset areas, dams and 2 final void water bodies. The approved final land use and rehabilitation progress can viewed in the NSW Government’s SEED database by following the link below:

<https://datasets.seed.nsw.gov.au/dataset/mine-rehabilitation>

Figure 1: Aerial view of Liddell Coal Mine



## Rehabilitation obligations for mines

The overarching regulatory requirement is to ensure that rehabilitation of the mining area achieves the ‘final land use’. The final land use is approved before the commencement of a mine as part of a development consent granted pursuant to the *Environmental Planning and Assessment Act 1979*.

Once a mining operation commences the key obligations<sup>3</sup> are as follows:

- develop and seek approval of:
  - a rehabilitation objectives statement – that describes the rehabilitation outcomes required to attain the final land use for the mining area
  - a rehabilitation completion criteria statement – that expands on rehabilitation objectives to define the key criteria and ‘benchmark values’ for each criterion to be achieved - the attainment of which will demonstrate rehabilitation achieved the final land use
  - a final landform and rehabilitation plan (for large mines only<sup>4</sup>) – that spatially depicts the final land use, the final landform topography and the location of rehabilitation features.
- develop and implement a forward program that provides a schedule of mining activities and the spatial progression of rehabilitation activities for the next 3 years (which demonstrates rehabilitation is occurring as soon as reasonably practicable following disturbance)
- undertake progressive rehabilitation over the life of the mine and submit an annual rehabilitation report and forward program to demonstrate how rehabilitation is progressing against the approved performance measures and timeframes
- achieve the approved rehabilitation objectives
- achieve the approved rehabilitation completion criteria
- achieve the final landform and final land use(s).

### Submitting rehabilitation completion criteria for approval

As noted above, strict rehabilitation obligations are set through the development consent for the mine as well as the rehabilitation objective statement and final landform and rehabilitation plan approved under the *Mining Act 1992*. To ensure that the appropriate benchmarks are clearly defined in terms of how to measure whether rehabilitation has successfully met these obligations, it is the expectation that lease holders will submit final rehabilitation completion criteria for approval well in advance before rehabilitation of the whole (or identified part) of the mining area is proposed to be completed.

However, for some mining operations, the development of final rehabilitation completion criteria will take many years as time is required for research, monitoring and stakeholder consultation to set the appropriate benchmarks to be achieved for the various aspects of rehabilitation (e.g. landform stability, establishment of vegetation community types, water quality parameters, etc).

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<sup>3</sup> These obligation are set out in Schedule 8A of Mining Regulation 2016.

<sup>4</sup> **Large mine** means a mine the subject of one or more mining leases, the carrying out of activities under at least one of which requires an environment protection licence under the *Protection of the Environment Operations Act 1997*.

To cater for this, final rehabilitation completion criteria are only required to be submitted no later than the due date of the forward program that covers a period which includes completion of rehabilitation for the mining area or part thereof<sup>5</sup>.

The intent of the required timing for submission is to allow sufficient time for research, monitoring and further stakeholder consultation to set the appropriate rehabilitation benchmarks to be achieved. There are some mines where aspects of rehabilitation require further research and consultation before suitable rehabilitation completion criteria can be approved. To confirm expectations, the Regulator will be working closely with some mines on key aspects of rehabilitation such as ecological and agricultural revegetation, landform stability, surface and groundwater quality to better define rehabilitation completion criteria. The key objective being to ensure that when rehabilitation is signed-off against the completion criteria, it will mean that rehabilitation will be sustainable for the long term.

This is consistent with a key aim of Schedule 8A of the Mining Regulation 2016, which is to improve the clarity of the benchmark to be achieved for rehabilitation to be deemed sustainable for the long term. This will also lead to more specificity and consistency in monitoring programs to track the trajectory and compliance of rehabilitation in meeting the final land use.

Rehabilitation completion criteria that have not been approved by the Regulator are considered to be preliminary only, and are to be included as part of the published rehabilitation management plan. Where this is the case, the process and timeframe of ongoing refinement of rehabilitation completion criteria, before being submitted for final approval, will need to be documented in the forward program. The progress towards finalisation will also need to be reported in the annual rehabilitation report.

### Submitting a rehabilitation completion (sign-off) application

The timeframe it takes for active rehabilitation works to be undertaken following the cessation of mining, as well as for rehabilitation to mature to a standard where it is assessed as complete, can take in the order of 3 to 20 years (or longer) following the cessation of mining operations at a mine. Mines can lodge an application with the department for rehabilitation sign-off when it can be demonstrated that rehabilitation areas have achieved the approved final land use -

- as set out in the approved rehabilitation objectives and rehabilitation completion criteria statements, and
- as spatially depicted in the approved final landform and rehabilitation plan, and
- as set out in the relevant development consent.

This may include completion of rehabilitation within a particular area of land within the mining lease or completion of rehabilitation across the entire mining lease area. The application needs to:

- demonstrate that rehabilitation has met the approved rehabilitation objectives
- demonstrate that rehabilitation has achieved the approved rehabilitation completion criteria
- demonstrate that rehabilitation has achieved the approved final landform and final land use(s)

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<sup>5</sup> Clause 15(3) of Schedule 8A of the Mining Regulation 2016.

- provide sufficient evidence, in some case years of monitoring data, to demonstrate that the standard of rehabilitation has achieved the final land use as set out in above approved rehabilitation outcome documents.

Mines are encouraged to apply for rehabilitation completion progressively when portions of the mining area have achieved the final land use. This will facilitate the lease holder’s demonstration of successful progressive rehabilitation ‘as soon as reasonably practicable’ as required by clause 5 in Schedule 8A of the Mining Regulation 2016. It may also result in partial return of the security deposit.

## Liddell Coal Mine rehabilitation completion criteria

The rehabilitation completion criteria statement for the Liddell Coal Mine was approved by the Regulator in July 2024. This followed extensive consultation with the mine and a detailed assessment by the Regulator.

A summary of both the process and considerations related to the development of the rehabilitation completion criteria for key aspects of rehabilitation at Liddell Coal Operations, is outlined below:

### Ecological rehabilitation completion criteria

- Comprehensive monitoring over several years was undertaken across a range of reference sites that represent the key vegetation communities that are the ecological target for native rehabilitation at the mine.
- As part of the Glencore group of mines, Liddell Coal Operations participated in a research program coordinated and funded by the Australian Coal Association Research Program, which published a report entitled “ACARP Project C27038 - Establishing Self-sustaining and Recognisable Ecological Mine Rehabilitation” (December 2021).
- Based on the ACARP final report, and in consideration of years of rehabilitation and reference site monitoring, rehabilitation completion criteria for the mine were developed and refined following consultation with both the Regulator and the Conservation and Restoration Science Branch within the Science and Insights Division of the NSW Department of Climate Change, Energy, the Environment and Water.
- As a result of this consultation, agreement was reached on the use of the 10<sup>th</sup> and 90<sup>th</sup> percentile of reference site values for many completion criteria attributes, as this approach removes the influence of anomalies and outliers in reference site values and prevents unusually high or low values which are atypical of the target community being used as threshold values.
- To adequately define successful ecological rehabilitation, the approved rehabilitation completion criteria address species composition, structure and ecological function (self-sustainability) attributes. This ensures that ecological rehabilitation can be assessed in terms of both recognisability and long term sustainability as a means to determine alignment with the target vegetation communities to be achieved.

### Agricultural grazing rehabilitation completion criteria

- The key to the development of agricultural rehabilitation completion criteria at the mine has been that the rehabilitation areas have been set up with appropriate infrastructure such as



fenced paddocks, stock water troughs, cattle yards, etc in order to facilitate active rotational grazing in parallel with mining operations.

- Active grazing of rehabilitation areas has enabled the mine to conduct research and monitoring programs coordinated by suitably qualified agronomists to assess the performance of rehabilitation areas against reference sites that have not been impacted by mining.
- The capacity of the rehabilitated land to sustain on-going agricultural production without degradation of soil, land air and water resource can be determined using the NSW Land and Soil Capability Assessment Scheme. As such, land capability has been used as one of the rehabilitation completion criteria as the assessment takes into account the inherent physical capacity of the land to sustain land management practices in the long term without degradation.
- Research conducted at Scone in the Upper Hunter Valley by the former Department of Infrastructure, Planning and Natural Resources has shown that at least 70% ground cover is required to prevent excessive run-off and erosion. A ground cover of 70% or greater is required as a completion criterion for agricultural rehabilitation. (Lang & McDonald,2005).
- 70% of pasture species are perennial - Perennial pastures provide stability and long term productivity to pasture systems. A dominance of perennial species is preferred in a grazing enterprise to ensure long term ground cover and soil protection. Perennial pastures also provide competition against weed invasion. The dominance of perennials is important for sustainability as they tend to have:
  - a longer growing season,
  - deeper roots which result in greater water use,
  - a greater ability to maintain ground cover, the ability to build soil organic matter (Leech and Keys 2003).
- 70% of pasture species are palatable - Pasture ‘palatability’ is often closely related to the digestibility of the pasture. Low digestibility, stalky grass is less palatable than leafy growth. Providing pasture of suitable digestibility will ensure increased palatability. Pasture digestibility is largely influenced by the stage of growth of a pasture. Pasture is of highest quality in the vegetative /leafy stage and declines rapidly after flowering.
- Pasture or priority weed cover <20% - The classification of a plant as a weed depends on the proposed use for the plant. In grazing paddocks, plants that are potentially damaging to the health of the livestock or have a negative effect on pasture and hence animal production are generally classified as weeds or undesirable plants.
- Biomass (Dry Matter (kg DM)/ha) of pasture vegetation is >1500 - Pasture herbage mass is measured as kilograms of dry matter per hectare. While total herbage mass provides an indication of total mass of the grass/pasture available for livestock to graze, not all the pasture will be utilised. Cattle will preferentially graze some pasture species over other species, which also depends on their stage of growth. Tall, rank growth is often avoided while short fresh green leaf is preferred. Some ‘weed’ species are also palatable at times and can provide a meaningful proportion of livestock diet at certain times. Pasture utilisation is usually in the range of 30-40% of the feed on offer. The level depends on grazing management, stocking rates and pasture types and growth.

- Low pasture herbage mass will limit livestock performance and can be reflected in reduced ground cover. If pasture biomass is allowed to decline below 1,500 kg DM/ha, cattle are unable to graze enough pasture to maintain weight. Once this critical level of pasture mass is reached, cattle should be removed from the pasture or weight loss will occur.

A copy of the approved rehabilitation completion criteria statement is included in **Appendix 1**.

The approved rehabilitation completion criteria statement recognised that there is still further refinement required for the following completion criteria within some parts of the mine site:

- clarity of the benchmark to be achieved to ensure impacts to the groundwater regime and groundwater quality are within the range predicted in the pre-mining environmental assessment
- clarity of the benchmark to be achieved to ensure impacts to the surface water quality, across areas of the site that drain to the external environment, are within the range predicted in the pre-mining environmental assessment
- the benchmark to be applied to some higher risk landforms to ensure the final landform is stable and does not present a risk of environmental harm downstream/downslope or a safety risk
- the need for additional ecosystem function criteria for soil health and resilience indicators within the areas of the site that will have a native ecosystem final land use.

The Regulator will be working with Liddell Coal and other government agencies to establish the appropriate benchmarks for these aspects of the rehabilitation. This will include working with the NSW Environmental Protection Authority to develop appropriate surface water and groundwater quality criteria for mine rehabilitation. This will enable Liddell Coal to prepare and submit an updated and revised rehabilitation completion criteria statement to the Regulator for determination.

## Rehabilitation sign-off by the Regulator

The approved Liddell Coal Mine rehabilitation completion criteria statement will be used by the Regulator in the assessment of applications for rehabilitation completion across the mine site.

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## Further information

- [Mine rehabilitation regulatory framework](#)
- [Standard rehabilitation conditions on mining leases](#)
- [Guideline: Rehabilitation objectives and rehabilitation completion criteria](#)
- [Guideline: Achieving rehabilitation completion \(sign-off\)](#)
- [Rehabilitation completion on a mining lease application form](#)

## References

*Lang D and Mc Donald W (2005) NSW Department of Primary Industries Agfact p2.1.14. Maintaining groundcover to reduce erosion and sustain production.*

*Leech F and Keys M (2003), The Grazier's Guide to Pastures. NSW Agriculture, Orange, NSW.*

*Neil Nelson Agvice P/L (2004), Agricultural Rehabilitation Certification Liddell Coal Operations Railway and Pipeline Paddocks.*

*Umwelt (Australia) Pty Limited (2021), ACARP Project C27038 Establishing Self-sustaining and Recognisable Ecological Mine Rehabilitation.*

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## About this information release

The information contained in this publication is based on knowledge and understanding at the time of writing. However, because advances in knowledge, users are reminded of the need to ensure that the information upon which they rely is up to date and to check the currency of the information with the appropriate officer of the NSW Resources Regulator or the user's independent advisor.

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# Appendix 1 - Approved rehabilitation completion criteria (Liddell Coal Mine)

(see next page)

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RCC0001014

Approved rehabilitation completion criteria statement

Liddell Coal

30 July 2024

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## Application summary

Detail	Approval
Reference	RCC0001014
Date of decision	30 July 2024
Mine	Liddell Coal
Contact	Sean Pigott
Nominated contact person	Ben de Somer

## Important note

While every effort is being made to ensure that documents hosted by the NSW Resources Regulator are WCAG 2.0 Level AA compliant, we acknowledge that not all resources have achieved this. If you require this document in an alternative format, please email [industry.engagement@regional.nsw.gov.au](mailto:industry.engagement@regional.nsw.gov.au)

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## Rehabilitation Completion Criteria

The following rehabilitation completion criteria have been approved. Please note the table below will also include any previously approved rehabilitation objectives.

### ROB0014518

Final Land Use Domain	Native Ecosystem	Mining Domain	Infrastructure Area	Spatial Reference	A1
Rehabilitation Objective Category	Bushfire	Rehabilitation Objective	The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.		

### ROCC0002142

Rehabilitation completion criteria	Bushfire controls implemented.				
Indicators	Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.				
Validation method	Independent verification report.				

### ROB0014604

Final Land Use Domain	Native Ecosystem	Mining Domain	Infrastructure Area	Spatial Reference	A1
Rehabilitation Objective Category	Groundwater	Rehabilitation Objective	Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.		

### ROCC0002384

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				

### ROB0014570

Final Land Use Domain	Native Ecosystem	Mining Domain	Infrastructure Area	Spatial Reference	A1
Rehabilitation Objective Category	Land and water contamination	Rehabilitation Objective	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.		

### ROCC0002350

Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				

### ROCC0002324

Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)

### ROCC0002337

Rehabilitation completion criteria	There are no visible signs of contamination
Indicators	Waste material and/or visible contamination areas on site
Validation method	Statement provided and before/after photos

### ROB0014505

Final Land Use Domain	Native Ecosystem	Mining Domain	Infrastructure Area	Spatial Reference	A1
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		

### ROCC0002129

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.

### ROCC0002116

Rehabilitation completion criteria	Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works. Visual - no signs of land instability such as mass movement. Visual - no areas of active gully erosion. Visual - no evidence of tunnel erosion. Visual - no evidence of active scour likely to compromise surface water management structure. Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan. Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.
Indicators	Visual - indicators of erosion and land instability. Visual - indicators that surface water management structure are functioning as designed. Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan. Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.
Validation method	Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).



## ROB0014620

Final Land Use Domain	Native Ecosystem	Mining Domain	Infrastructure Area	Spatial Reference	A1
Rehabilitation Objective Category	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended land use.		

## ROCC0002400

Rehabilitation completion criteria	<p>Visual – verification that capping, type and placement present acceptable residual risk to final land use</p> <p>Visual – no signs of impacts on final land use due to residual waste materials indicated by vegetation health</p> <p>Survey - no significant areas of high temperature that impacts vegetation health</p> <p>Survey - coarse rejects and hot material is a minimum of 5m below final landform surface (where records are available)</p>				
Indicators	<p>Visual – capping material placement, type across emplacement</p> <p>Visual – indication of residual waste impacting on final land use – vegetation health</p> <p>Survey - targeted thermal scanning of surface for indications of spontaneous combustion based on visual indicators</p> <p>Survey - survey plans show depth of coarse rejects, hot material and other wastes (where records are available)</p>				
Validation method	Photos, rehabilitation monitoring reports, as constructed surveys, thermal survey outputs, survey records and plans, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.				

## ROB0014493

Final Land Use Domain	Native Ecosystem	Mining Domain	Infrastructure Area	Spatial Reference	A1
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	At least 731ha of the target native woodland vegetation (Central Hunter Box-Ironbark Woodland) is established providing habitat connectivity for the Spotted-tailed Quoll.		

## ROCC0002092

Rehabilitation completion criteria	Distribution of Central Hunter Box-Ironbark Woodland covers at least 731ha within the Project Area and provides for habitat connectivity across the landform.				
Indicators	731ha of Central Hunter Box-Ironbark Woodland is established across the landform providing connectivity (native woodland corridors) between adjoining native vegetation/habitat.				
Validation method	Independent ecological reports and vegetation distribution mapping.				

## ROCC0002095

Rehabilitation completion criteria	Habitat features for the Spotted-tailed Quoll are constructed as per the Final Landform and Rehabilitation Plan				
Indicators	Suitable habitat features, such as rock and log piles, are incorporated into the native woodland areas to provide habitat for the Spotted-tailed Quoll				
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.				

## ROB0014502

Final Land Use Domain	Native Ecosystem	Mining Domain	Infrastructure Area	Spatial Reference	A1
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable		

## ROCC0002104

Rehabilitation completion criteria

Cover of 'high threat exotic' (HTE) species is  $\leq$  90th percentile of values observed at suitable reference sites<sup>1</sup>.  
1 Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.

Indicators

Cover of exotic species within 20m x 20m fixed monitoring plots is low

Validation method

Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that demonstrate long term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years  
Monitoring undertaken in accordance with BAM.

## ROCC0002113

Rehabilitation completion criteria

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators

Indicators

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators

Validation method

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators

## ROCC0002110

Rehabilitation completion criteria

Litter cover is between the 10th and 90th percentile of values from suitable reference sites<sup>1</sup>, or an ongoing trend toward this target range is observed.  
1 - Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.

Indicators

Indicators of nutrient cycling are suitable for sustaining the target vegetation community

Validation method

Rehabilitation monitoring reports, independent soil reports (where required) that demonstrate long term function of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years  
Monitoring undertaken in accordance with BAM.

## ROCC0002107

Rehabilitation completion criteria

The number of second generation trees are  $\geq$ 10th percentile of values recorded at suitable reference sites<sup>1</sup>.  
1 Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.

Indicators

Evidence of plant regeneration from 20m x 20m monitoring plots or a walk over of the ecological rehabilitation area

Validation method

Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that demonstrate long term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years  
Monitoring undertaken in accordance with BAM and walkover inspections undertaken to identify presence of recruitment.

## ROB0014496

Final Land Use Domain

Native Ecosystem

Mining Domain

Infrastructure Area

Spatial Reference

A1

Rehabilitation Objective Category

Native revegetation

Rehabilitation Objective

The vegetation composition of the rehabilitation is recognisable as the target plant community (Central Hunter Box-Ironbark Woodland) as described by the NSW Scientific Final Committee Determination.  
Note: Recognisable is defined as "Diagnostic species present for each Growth form for PCT/TEC using the scientific description of the plant community type available on Bionet.

## ROCC0002098

Rehabilitation completion criteria

A minimum of 10 of the 38 characteristic flora species contained in the Central Hunter Grey Box – Ironbark Woodland Final Determination (NSW Scientific Committee 2010) is present in a standard 20 m x 20 m floristic sampling plot.

Indicators

The number of characteristic species for Central Hunter Box-Ironbark Woodland present are characteristic of the NSW Scientific Committee Final Determination.

Validation method

Before and after photos, statistically robust rehabilitation monitoring reports, independent ecological reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years  
All native vascular plant species are recorded to species level from fixed monitoring plots.  
Monitoring undertaken in accordance with BAM.

## ROB0014499

Final Land Use Domain

Native Ecosystem

Mining Domain

Infrastructure Area

Spatial Reference

A1

Rehabilitation Objective Category

Native revegetation

Rehabilitation Objective

The vegetation structure of the rehabilitation is recognisable as, or is trending towards the target plant community (Central Hunter Box-Ironbark Woodland) as described by the NSW Scientific Committee Final Determination.

Note:

"Trending Towards the target plant community" requires use of time series data to show development for each Growth Form against benchmark value range (or successional benchmarks)

## ROCC0002101

Rehabilitation completion criteria

Within a standard 20 m x 20 m floristic sampling plot tree (TG) foliage cover is between 10% and 70% AND grass (GG) and forb (FG) growth forms are present.

Indicators

The growth forms present are consistent with, or are trending toward, those of the target vegetation types.

Validation method

Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required). Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years  
Monitoring undertaken in accordance with BAM.

## ROB0014531

Final Land Use Domain

Native Ecosystem

Mining Domain

Infrastructure Area

Spatial Reference

A1

Rehabilitation Objective Category

Removal of infrastructure

Rehabilitation Objective

All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.

## ROCC0002207

Rehabilitation completion criteria

All utility infrastructure removed.

Indicators

Removal of all services (power, water, communications) that have been connected on the site as part of the operation.

Validation method

Statement provided, independent field verification

## ROCC0002168

Rehabilitation completion criteria

Cores removed.

Indicators	All drill cores have been removed from site and either taken to authorised storage or disposal location.
Validation method	Statement provided, independent field verification, disposal/transfer receipts
<b>ROCC0002155</b>	
Rehabilitation completion criteria	Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.
Indicators	Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.
<b>ROCC0002220</b>	
Rehabilitation completion criteria	Infrastructure removed.
Indicators	Removal of all water management infrastructure (including pumps, pipes and power).
Validation method	Statement provided, independent field verification and before/after photos.
<b>ROCC0002181</b>	
Rehabilitation completion criteria	Infrastructure removed.
Indicators	All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.
Validation method	As-constructed final landform plan, photos, independent field verification, etc.
<b>ROCC0002194</b>	
Rehabilitation completion criteria	Permits and approval documents issued; archival reports (where required) complete and submitted.
Indicators	Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).
Validation method	Copy of any relevant approval documentation.
<b>ROCC0002233</b>	
Rehabilitation completion criteria	Sealing complete.
Indicators	Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.
Validation method	Engineering report/statement, survey records, photos etc.
<b>ROCC0002246</b>	
Rehabilitation completion criteria	Sealing completed. OR Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.

Indicators	Surveying and sealing of all former underground mine entries. OR Where sealing records are not available, risk assessment completed to define risk to final land use.
Validation method	Engineering report/statement, risk assessment report, survey records, photos etc.

## ROB0014544

Final Land Use Domain	Native Ecosystem	Mining Domain	Infrastructure Area	Spatial Reference	A1
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Any infrastructure that is to remain as part of the final land use is safe.		

## ROCC0002298

Rehabilitation completion criteria	Any required Repairs or Upgrades complete.
Indicators	Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.
Validation method	Copy of any relevant plans, photos etc.

## ROCC0002272

Rehabilitation completion criteria	Hazards isolated and secured.
Indicators	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.
Validation method	Statement provided.

## ROCC0002259

Rehabilitation completion criteria	The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.
Indicators	If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use. Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.
Validation method	Surveyed and marked on the as-constructed final landform plan. Copy of notification to or correspondence with relevant authority

## ROCC0002285

Rehabilitation completion criteria	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.
Indicators	The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.
Validation method	Engineering report/statement, photos etc.

## ROB0014557

Final Land Use Domain	Native Ecosystem	Mining Domain	Infrastructure Area	Spatial Reference	A1
Rehabilitation Objective	Retention of infrastructure	Rehabilitation Objective	Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the		

Category	Environmental Planning and Assessment Act 1979).			
<b>ROCC0002311</b>				
Rehabilitation completion criteria	Permits and approval documents issued			
Indicators	Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use			
Validation method	Copy of any relevant approvals or evidence if approvals not required e.g. fencing			
<b>ROB0014591</b>				
Final Land Use Domain	Native Ecosystem	Mining Domain	Infrastructure Area	Spatial Reference A1
Rehabilitation Objective Category	Water quality	Rehabilitation Objective	Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining environmental assessments.	
<b>ROCC0002371</b>				
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.			
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.			
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.			
<b>ROB0014519</b>				
Final Land Use Domain	Native Ecosystem	Mining Domain	Water Management Area	Spatial Reference A3
Rehabilitation Objective Category	Bushfire	Rehabilitation Objective	The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.	
<b>ROCC0002143</b>				
Rehabilitation completion criteria	Bushfire controls implemented.			
Indicators	Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.			
Validation method	Independent verification report.			
<b>ROB0014605</b>				
Final Land Use Domain	Native Ecosystem	Mining Domain	Water Management Area	Spatial Reference A3
Rehabilitation Objective Category	Groundwater	Rehabilitation Objective	Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.	
<b>ROCC0002385</b>				
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.			



Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
<b>ROB0014571</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Water Management Area	Spatial Reference	A3
Rehabilitation Objective Category	Land and water contamination	Rehabilitation Objective	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.		
<b>ROCC0002325</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002351</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002338</b>					
Rehabilitation completion criteria	There are no visible signs of contamination				
Indicators	Waste material and/or visible contamination areas on site				
Validation method	Statement provided and before/after photos				
<b>ROB0014506</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Water Management Area	Spatial Reference	A3
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		
<b>ROCC0002130</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				

Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
<b>ROCC0002117</b>					
Rehabilitation completion criteria	<p>Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works.</p> <p>Visual – no signs of land instability such as mass movement.</p> <p>Visual - no areas of active gully erosion.</p> <p>Visual - no evidence of tunnel erosion.</p> <p>Visual – no evidence of active scour likely to compromise surface water management structure.</p> <p>Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.</p>				
Indicators	<p>Visual - indicators of erosion and land instability.</p> <p>Visual - indicators that surface water management structure are functioning as designed.</p> <p>Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.</p>				
Validation method	<p>Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform.</p> <p>Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).</p>				
<b>ROB0014621</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Water Management Area	Spatial Reference	A3
Rehabilitation Objective Category	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended land use.		
<b>ROCC0002401</b>					
Rehabilitation completion criteria	<p>Visual – verification that capping, type and placement present acceptable residual risk to final land use</p> <p>Visual – no signs of impacts on final land use due to residual waste materials indicated by vegetation health</p> <p>Survey - no significant areas of high temperature that impacts vegetation health</p> <p>Survey - coarse rejects and hot material is a minimum of 5m below final landform surface (where records are available)</p>				
Indicators	<p>Visual – capping material placement, type across emplacement</p> <p>Visual – indication of residual waste impacting on final land use – vegetation health</p> <p>Survey - targeted thermal scanning of surface for indications of spontaneous combustion based on visual indicators</p> <p>Survey - survey plans show depth of coarse rejects, hot material and other wastes (where records are available)</p>				
Validation method	Photos, rehabilitation monitoring reports, as constructed surveys, thermal survey outputs, survey records and plans, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.				
<b>ROB0014494</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Water Management Area	Spatial Reference	A3
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	At least 731ha of the target native woodland vegetation (Central Hunter Box-Ironbark Woodland) is established providing habitat connectivity for the Spotted-tailed Quoll.		
<b>ROCC0002093</b>					
Rehabilitation completion criteria	Distribution of Central Hunter Box-Ironbark Woodland covers at least 731ha within the Project Area and provides for habitat connectivity across the landform.				

Indicators	731ha of Central Hunter Box-Ironbark Woodland is established across the landform providing connectivity (native woodland corridors) between adjoining native vegetation/habitat.				
Validation method	Independent ecological reports and vegetation distribution mapping.				
<b>ROCC0002096</b>					
Rehabilitation completion criteria	Habitat features for the Spotted-tailed Quoll are constructed as per the Final Landform and Rehabilitation Plan				
Indicators	Suitable habitat features, such as rock and log piles, are incorporated into the native woodland areas to provide habitat for the Spotted-tailed Quoll				
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.				
<b>ROB0014503</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Water Management Area	Spatial Reference	A3
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable		
<b>ROCC0002105</b>					
Rehabilitation completion criteria	Cover of 'high threat exotic' (HTE) species is $\leq$ 90th percentile of values observed at suitable reference sites <sup>1</sup> . 1 Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.				
Indicators	Cover of exotic species within 20m x 20m fixed monitoring plots is low				
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that demonstrate long term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.				
<b>ROCC0002114</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators				
<b>ROCC0002111</b>					
Rehabilitation completion criteria	Litter cover is between the 10th and 90th percentile of values from suitable reference sites <sup>1</sup> , or an ongoing trend toward this target range is observed. 1 - Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.				
Indicators	Indicators of nutrient cycling are suitable for sustaining the target vegetation community				
Validation method	Rehabilitation monitoring reports, independent soil reports (where required) that demonstrate long term function of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.				
<b>ROCC0002108</b>					

Rehabilitation completion criteria	The number of second generation trees are $\geq 10$ th percentile of values recorded at suitable reference sites <sup>1</sup> . 1 Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.
Indicators	Evidence of plant regeneration from 20m x 20m monitoring plots or a walk over of the ecological rehabilitation area
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that demonstrate long term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM and walkover inspections undertaken to identify presence of recruitment.

## ROB0014497

Final Land Use Domain	Native Ecosystem	Mining Domain	Water Management Area	Spatial Reference	A3
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	The vegetation composition of the rehabilitation is recognisable as the target plant community (Central Hunter Box-Ironbark Woodland) as described by the NSW Scientific Final Committee Determination. Note: Recognisable is defined as "Diagnostic species present for each Growth form for PCT/TEC using the scientific description of the plant community type available on Bionet.		

## ROCC0002099

Rehabilitation completion criteria	A minimum of 10 of the 38 characteristic flora species contained in the Central Hunter Grey Box – Ironbark Woodland Final Determination (NSW Scientific Committee 2010) is present in a standard 20 m x 20 m floristic sampling plot.
Indicators	The number of characteristic species for Central Hunter Box-Ironbark Woodland present are characteristic of the NSW Scientific Committee Final Determination.
Validation method	Before and after photos, statistically robust rehabilitation monitoring reports, independent ecological reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years All native vascular plant species are recorded to species level from fixed monitoring plots. Monitoring undertaken in accordance with BAM.

## ROB0014500

Final Land Use Domain	Native Ecosystem	Mining Domain	Water Management Area	Spatial Reference	A3
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	The vegetation structure of the rehabilitation is recognisable as, or is trending towards the target plant community (Central Hunter Box-Ironbark Woodland) as described by the NSW Scientific Committee Final Determination. Note: "Trending Towards the target plant community" requires use of time series data to show development for each Growth Form against benchmark value range (or successional benchmarks)		

## ROCC0002102

Rehabilitation completion criteria	Within a standard 20 m x 20 m floristic sampling plot tree (TG) foliage cover is between 10% and 70% AND grass (GG) and forb (FG) growth forms are present.
Indicators	The growth forms present are consistent with, or are trending toward, those of the target vegetation types.
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required). Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.

## ROB0014532

Final Land Use Domain

Native Ecosystem

Mining Domain

Water Management Area

Spatial Reference

A3

Rehabilitation Objective Category

Removal of infrastructure

Rehabilitation Objective

All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.

### ROCC0002208

Rehabilitation completion criteria

All utility infrastructure removed.

Indicators

Removal of all services (power, water, communications) that have been connected on the site as part of the operation.

Validation method

Statement provided, independent field verification

### ROCC0002169

Rehabilitation completion criteria

Cores removed.

Indicators

All drill cores have been removed from site and either taken to authorised storage or disposal location.

Validation method

Statement provided, independent field verification, disposal/transfer receipts

### ROCC0002156

Rehabilitation completion criteria

Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.

Indicators

Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.

Validation method

Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.

### ROCC0002182

Rehabilitation completion criteria

Infrastructure removed.

Indicators

All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.

Validation method

As-constructed final landform plan, photos, independent field verification, etc.

### ROCC0002221

Rehabilitation completion criteria

Infrastructure removed.

Indicators

Removal of all water management infrastructure (including pumps, pipes and power).

Validation method

Statement provided, independent field verification and before/after photos.

### ROCC0002195

Rehabilitation completion criteria

Permits and approval documents issued; archival reports (where required) complete and submitted.

Indicators	Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).				
Validation method	Copy of any relevant approval documentation.				
<b>ROCC0002234</b>					
Rehabilitation completion criteria	Sealing complete.				
Indicators	Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.				
Validation method	Engineering report/statement, survey records, photos etc.				
<b>ROCC0002247</b>					
Rehabilitation completion criteria	Sealing completed. OR Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.				
Indicators	Surveying and sealing of all former underground mine entries. OR Where sealing records are not available, risk assessment completed to define risk to final land use.				
Validation method	Engineering report/statement, risk assessment report, survey records, photos etc.				
<b>ROB0014545</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Water Management Area	Spatial Reference	A3
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Any infrastructure that is to remain as part of the final land use is safe.		
<b>ROCC0002299</b>					
Rehabilitation completion criteria	Any required Repairs or Upgrades complete.				
Indicators	Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.				
Validation method	Copy of any relevant plans, photos etc.				
<b>ROCC0002273</b>					
Rehabilitation completion criteria	Hazards isolated and secured.				
Indicators	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.				
Validation method	Statement provided.				
<b>ROCC0002260</b>					
Rehabilitation completion criteria	The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.				
Indicators	If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use.				



	Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.				
Validation method	Surveyed and marked on the as-constructed final landform plan. Copy of notification to or correspondence with relevant authority				
<b>ROCC0002286</b>					
Rehabilitation completion criteria	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.				
Indicators	The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.				
Validation method	Engineering report/statement, photos etc.				

## ROB0014558

Final Land Use Domain	Native Ecosystem	Mining Domain	Water Management Area	Spatial Reference	A3
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979).		

## ROCC0002312

Rehabilitation completion criteria	Permits and approval documents issued				
Indicators	Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use				
Validation method	Copy of any relevant approvals or evidence if approvals not required e.g. fencing				

## ROB0014592

Final Land Use Domain	Native Ecosystem	Mining Domain	Water Management Area	Spatial Reference	A3
Rehabilitation Objective Category	Water quality	Rehabilitation Objective	Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining environmental assessments.		

## ROCC0002372

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				

## ROB0014520

Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4
Rehabilitation Objective Category	Bushfire	Rehabilitation Objective	The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.		

## ROCC0002144

Rehabilitation completion criteria	Bushfire controls implemented.				
Indicators	Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.				
Validation method	Independent verification report.				
<b>ROB0014606</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4
Rehabilitation Objective Category	Groundwater	Rehabilitation Objective	Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.		
<b>ROCC0002386</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
<b>ROB0014572</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4
Rehabilitation Objective Category	Land and water contamination	Rehabilitation Objective	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.		
<b>ROCC0002326</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002352</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002339</b>					
Rehabilitation completion criteria	There are no visible signs of contamination				

Indicators	Waste material and/or visible contamination areas on site				
Validation method	Statement provided and before/after photos				
<b>ROB0014507</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		
<b>ROCC0002131</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
<b>ROCC0002118</b>					
Rehabilitation completion criteria	<p>Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works.</p> <p>Visual - no signs of land instability such as mass movement.</p> <p>Visual - no areas of active gully erosion.</p> <p>Visual - no evidence of tunnel erosion.</p> <p>Visual - no evidence of active scour likely to compromise surface water management structure.</p> <p>Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.</p>				
Indicators	<p>Visual - indicators of erosion and land instability.</p> <p>Visual - indicators that surface water management structure are functioning as designed.</p> <p>Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.</p>				
Validation method	<p>Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform.</p> <p>Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).</p>				
<b>ROB0014622</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4
Rehabilitation Objective Category	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended land use.		
<b>ROCC0002402</b>					
Rehabilitation completion criteria	<p>Visual - verification that capping, type and placement present acceptable residual risk to final land use</p> <p>Visual - no signs of impacts on final land use due to residual waste materials indicated by vegetation health</p> <p>Survey - no significant areas of high temperature that impacts vegetation health</p> <p>Survey - coarse rejects and hot material is a minimum of 5m below final landform surface (where records are available)</p>				
Indicators	Visual - capping material placement, type across emplacement				

Validation method	Visual – indication of residual waste impacting on final land use – vegetation health Survey - targeted thermal scanning of surface for indications of spontaneous combustion based on visual indicators Survey - survey plans show depth of coarse rejects, hot material and other wastes (where records are available)
	Photos, rehabilitation monitoring reports, as constructed surveys, thermal survey outputs, survey records and plans, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.

## ROB0014495

Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	At least 731ha of the target native woodland vegetation (Central Hunter Box-Ironbark Woodland) is established providing habitat connectivity for the Spotted-tailed Quoll.		

## ROCC0002094

Rehabilitation completion criteria	Distribution of Central Hunter Box-Ironbark Woodland covers at least 731ha within the Project Area and provides for habitat connectivity across the landform.
Indicators	731ha of Central Hunter Box-Ironbark Woodland is established across the landform providing connectivity (native woodland corridors) between adjoining native vegetation/habitat.
Validation method	Independent ecological reports and vegetation distribution mapping.

## ROCC0002097

Rehabilitation completion criteria	Habitat features for the Spotted-tailed Quoll are constructed as per the Final Landform and Rehabilitation Plan
Indicators	Suitable habitat features, such as rock and log piles, are incorporated into the native woodland areas to provide habitat for the Spotted-tailed Quoll
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.

## ROB0014504

Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable		

## ROCC0002106

Rehabilitation completion criteria	Cover of 'high threat exotic' (HTE) species is $\leq$ 90th percentile of values observed at suitable reference sites1. 1 Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.
Indicators	Cover of exotic species within 20m x 20m fixed monitoring plots is low
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that demonstrate long term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.

## ROCC0002115

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators
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Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators
<b>ROCC0002112</b>	
Rehabilitation completion criteria	Litter cover is between the 10th and 90th percentile of values from suitable reference sites <sup>1</sup> , or an ongoing trend toward this target range is observed. 1 - Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.
Indicators	Indicators of nutrient cycling are suitable for sustaining the target vegetation community
Validation method	Rehabilitation monitoring reports, independent soil reports (where required) that demonstrate long term function of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.
<b>ROCC0002109</b>	
Rehabilitation completion criteria	The number of second generation trees are ≥10th percentile of values recorded at suitable reference sites <sup>1</sup> . 1 Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.
Indicators	Evidence of plant regeneration from 20m x 20m monitoring plots or a walk over of the ecological rehabilitation area
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that demonstrate long term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM and walkover inspections undertaken to identify presence of recruitment.

<b>ROB0014498</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	The vegetation composition of the rehabilitation is recognisable as the target plant community (Central Hunter Box-Ironbark Woodland) as described by the NSW Scientific Final Committee Determination. Note: Recognisable is defined as "Diagnostic species present for each Growth form for PCT/TEC using the scientific description of the plant community type available on Bionet.		

<b>ROCC0002100</b>	
Rehabilitation completion criteria	A minimum of 10 of the 38 characteristic flora species contained in the Central Hunter Grey Box – Ironbark Woodland Final Determination (NSW Scientific Committee 2010) is present in a standard 20 m x 20 m floristic sampling plot.
Indicators	The number of characteristic species for Central Hunter Box-Ironbark Woodland present are characteristic of the NSW Scientific Committee Final Determination.
Validation method	Before and after photos, statistically robust rehabilitation monitoring reports, independent ecological reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years All native vascular plant species are recorded to species level from fixed monitoring plots. Monitoring undertaken in accordance with BAM.

<b>ROB0014501</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4

Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	The vegetation structure of the rehabilitation is recognisable as, or is trending towards the target plant community (Central Hunter Box-Ironbark Woodland) as described by the NSW Scientific Committee Final Determination.		
<b>ROCC0002103</b>					
Rehabilitation completion criteria	Within a standard 20 m x 20 m floristic sampling plot tree (TG) foliage cover is between 10% and 70% AND grass (GG) and forb (FG) growth forms are present.				
Indicators	The growth forms present are consistent with, or are trending toward, those of the target vegetation types.				
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required). Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.				
<b>ROB0014533</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4
Rehabilitation Objective Category	Removal of infrastructure	Rehabilitation Objective	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.		
<b>ROCC0002209</b>					
Rehabilitation completion criteria	All utility infrastructure removed.				
Indicators	Removal of all services (power, water, communications) that have been connected on the site as part of the operation.				
Validation method	Statement provided, independent field verification				
<b>ROCC0002170</b>					
Rehabilitation completion criteria	Cores removed.				
Indicators	All drill cores have been removed from site and either taken to authorised storage or disposal location.				
Validation method	Statement provided, independent field verification, disposal/transfer receipts				
<b>ROCC0002157</b>					
Rehabilitation completion criteria	Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.				
Indicators	Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.				
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.				
<b>ROCC0002183</b>					
Rehabilitation completion criteria	Infrastructure removed.				



Indicators	All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.				
Validation method	As-constructed final landform plan, photos, independent field verification, etc.				
<b>ROCC0002222</b>					
Rehabilitation completion criteria	Infrastructure removed.				
Indicators	Removal of all water management infrastructure (including pumps, pipes and power).				
Validation method	Statement provided, independent field verification and before/after photos.				
<b>ROCC0002196</b>					
Rehabilitation completion criteria	Permits and approval documents issued; archival reports (where required) complete and submitted.				
Indicators	Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).				
Validation method	Copy of any relevant approval documentation.				
<b>ROCC0002235</b>					
Rehabilitation completion criteria	Sealing complete.				
Indicators	Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.				
Validation method	Engineering report/statement, survey records, photos etc.				
<b>ROCC0002248</b>					
Rehabilitation completion criteria	Sealing completed. OR Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.				
Indicators	Surveying and sealing of all former underground mine entries. OR Where sealing records are not available, risk assessment completed to define risk to final land use.				
Validation method	Engineering report/statement, risk assessment report, survey records, photos etc.				
<b>ROB0014546</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Any infrastructure that is to remain as part of the final land use is safe.		
<b>ROCC0002300</b>					
Rehabilitation completion criteria	Any required Repairs or Upgrades complete.				

Indicators	Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.				
Validation method	Copy of any relevant plans, photos etc.				
<b>ROCC0002274</b>					
Rehabilitation completion criteria	Hazards isolated and secured.				
Indicators	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.				
Validation method	Statement provided.				
<b>ROCC0002261</b>					
Rehabilitation completion criteria	The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.				
Indicators	If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use. Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.				
Validation method	Surveyed and marked on the as-constructed final landform plan. Copy of notification to or correspondence with relevant authority				
<b>ROCC0002287</b>					
Rehabilitation completion criteria	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.				
Indicators	The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.				
Validation method	Engineering report/statement, photos etc.				
<b>ROB0014559</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979).		
<b>ROCC0002313</b>					
Rehabilitation completion criteria	Permits and approval documents issued				
Indicators	Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use				
Validation method	Copy of any relevant approvals or evidence if approvals not required e.g. fencing				
<b>ROB0014593</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Overburden Emplacement Area	Spatial Reference	A4
Rehabilitation Objective Category	Water quality	Rehabilitation Objective	Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining environmental assessments.		

## ROCC0002373

Rehabilitation completion criteria

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Indicators

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Validation method

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

## ROB0014521

Final Land Use Domain

Native Ecosystem

Mining Domain

Active Mining Area (Open cut void)

Spatial Reference

A5

Rehabilitation Objective Category

Bushfire

Rehabilitation Objective

The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.

## ROCC0002145

Rehabilitation completion criteria

Bushfire controls implemented.

Indicators

Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.

Validation method

Independent verification report.

## ROB0014607

Final Land Use Domain

Native Ecosystem

Mining Domain

Active Mining Area (Open cut void)

Spatial Reference

A5

Rehabilitation Objective Category

Groundwater

Rehabilitation Objective

Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.

## ROCC0002387

Rehabilitation completion criteria

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Indicators

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Validation method

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

## ROB0014573

Final Land Use Domain

Native Ecosystem

Mining Domain

Active Mining Area (Open cut void)

Spatial Reference

A5

Rehabilitation Objective Category

Land and water contamination

Rehabilitation Objective

There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.

## ROCC0002327

Rehabilitation completion criteria

Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).

Indicators

Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.

Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002353</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002340</b>					
Rehabilitation completion criteria	There are no visible signs of contamination				
Indicators	Waste material and/or visible contamination areas on site				
Validation method	Statement provided and before/after photos				
<b>ROB0014508</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	A5
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		
<b>ROCC0002132</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
<b>ROCC0002119</b>					
Rehabilitation completion criteria	<p>Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works.</p> <p>Visual - no signs of land instability such as mass movement.</p> <p>Visual - no areas of active gully erosion.</p> <p>Visual - no evidence of tunnel erosion.</p> <p>Visual - no evidence of active scour likely to compromise surface water management structure.</p> <p>Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.</p>				
Indicators	<p>Visual - indicators of erosion and land instability.</p> <p>Visual - indicators that surface water management structure are functioning as designed.</p> <p>Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.</p>				
Validation method	Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that				

indicate long-term stability of rehabilitated landform.  
Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).

## ROB0014623

Final Land Use Domain	Native Ecosystem	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	A5
Rehabilitation Objective Category	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended land use.		

## ROCC0002403

Rehabilitation completion criteria	<p>Visual – verification that capping, type and placement present acceptable residual risk to final land use</p> <p>Visual – no signs of impacts on final land use due to residual waste materials indicated by vegetation health</p> <p>Survey - no significant areas of high temperature that impacts vegetation health</p> <p>Survey - coarse rejects and hot material is a minimum of 5m below final landform surface (where records are available)</p>				
Indicators	<p>Visual – capping material placement, type across emplacement</p> <p>Visual – indication of residual waste impacting on final land use – vegetation health</p> <p>Survey - targeted thermal scanning of surface for indications of spontaneous combustion based on visual indicators</p> <p>Survey - survey plans show depth of coarse rejects, hot material and other wastes (where records are available)</p>				
Validation method	Photos, rehabilitation monitoring reports, as constructed surveys, thermal survey outputs, survey records and plans, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.				

## ROB0014534

Final Land Use Domain	Native Ecosystem	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	A5
Rehabilitation Objective Category	Removal of infrastructure	Rehabilitation Objective	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.		

## ROCC0002210

Rehabilitation completion criteria	All utility infrastructure removed.				
Indicators	Removal of all services (power, water, communications) that have been connected on the site as part of the operation.				
Validation method	Statement provided, independent field verification				

## ROCC0002171

Rehabilitation completion criteria	Cores removed.				
Indicators	All drill cores have been removed from site and either taken to authorised storage or disposal location.				
Validation method	Statement provided, independent field verification, disposal/transfer receipts				

## ROCC0002158

Rehabilitation completion criteria	Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.				
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Indicators	Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.
<b>ROCC0002184</b>	
Rehabilitation completion criteria	Infrastructure removed.
Indicators	All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.
Validation method	As-constructed final landform plan, photos, independent field verification, etc.
<b>ROCC0002223</b>	
Rehabilitation completion criteria	Infrastructure removed.
Indicators	Removal of all water management infrastructure (including pumps, pipes and power).
Validation method	Statement provided, independent field verification and before/after photos.
<b>ROCC0002197</b>	
Rehabilitation completion criteria	Permits and approval documents issued; archival reports (where required) complete and submitted.
Indicators	Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).
Validation method	Copy of any relevant approval documentation.
<b>ROCC0002236</b>	
Rehabilitation completion criteria	Sealing complete.
Indicators	Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.
Validation method	Engineering report/statement, survey records, photos etc.
<b>ROCC0002249</b>	
Rehabilitation completion criteria	Sealing completed. OR Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.
Indicators	Surveying and sealing of all former underground mine entries. OR Where sealing records are not available, risk assessment completed to define risk to final land use.
Validation method	Engineering report/statement, risk assessment report, survey records, photos etc.

## ROB0014547

Final Land Use Domain	Native Ecosystem	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	A5
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Any infrastructure that is to remain as part of the final land use is safe.		
<b>ROCC0002301</b>					
Rehabilitation completion criteria	Any required Repairs or Upgrades complete.				
Indicators	Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.				
Validation method	Copy of any relevant plans, photos etc.				
<b>ROCC0002275</b>					
Rehabilitation completion criteria	Hazards isolated and secured.				
Indicators	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.				
Validation method	Statement provided.				
<b>ROCC0002262</b>					
Rehabilitation completion criteria	The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.				
Indicators	If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use. Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.				
Validation method	Surveyed and marked on the as-constructed final landform plan. Copy of notification to or correspondence with relevant authority				
<b>ROCC0002288</b>					
Rehabilitation completion criteria	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.				
Indicators	The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.				
Validation method	Engineering report/statement, photos etc.				
<b>ROB0014560</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	A5
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979).		
<b>ROCC0002314</b>					
Rehabilitation completion criteria	Permits and approval documents issued				
Indicators	Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use				



Validation method	Copy of any relevant approvals or evidence if approvals not required e.g. fencing				
<b>ROB0014594</b>					
Final Land Use Domain	Native Ecosystem	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	A5
Rehabilitation Objective Category	Water quality	Rehabilitation Objective	Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining environmental assessments.		
<b>ROCC0002374</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
<b>ROB0014587</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Infrastructure Area	Spatial Reference	B1
Rehabilitation Objective Category	Agricultural revegetation	Rehabilitation Objective	Land use capability is capable of supporting the target agricultural land use (grazing).		
<b>ROCC0002367</b>					
Rehabilitation completion criteria	Land and Soil Capability classification criteria met. Land capability of revegetation is generally VI or higher.				
Indicators	Land and Soil Capability classification or is Class VI or higher				
Validation method	Independent agronomist reports.				
<b>ROB0014583</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Infrastructure Area	Spatial Reference	B1
Rehabilitation Objective Category	Agricultural revegetation	Rehabilitation Objective	Revegetation consists of grassland areas with pockets of native vegetation to support sustainable agricultural activities (grazing) and only requires maintenance that is consistent with the intended final land use.		
<b>ROCC0002363</b>					
Rehabilitation completion criteria	<p>&gt;70% of pasture species are perennial, palatable, and productive</p> <p>Ground cover (vegetation, leaf litter, mulch) is greater than 70%</p> <p>Biomass (Dry Matter (kg DM)/ha) of pasture vegetation is &gt;1500</p> <p>Pasture or Priority weed presence cover is &lt;20%</p> <p>Notes:</p> <p>Priority Weed = Weed listed on the Priority Weed list for the Council Area(s) relevant to GCAA operation. The priority weed list can be accessed via the NSW Department of Primary Industries Weedwise Website (or its latest version).</p> <p>Pasture Weeds = those other weeds that are not listed on the Priority Weed list for the Council Area(s) relevant to GCAA operation, however are unpalatable or otherwise pose a risk to the establishment of the desired pasture composition.</p>				
Indicators	The re-established growth medium substrate (e.g. topsoil / subsoil) is capable of supporting the targeted agricultural regime (grazing) on a sustained basis.				

	Pasture composition assessed, including pasture weeds
Validation method	Results from Industry research, studies or trials, rehabilitation monitoring reports, independent soil reports, environmental monitoring records, independent agronomist reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15 years).

## ROB0014522

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Infrastructure Area	Spatial Reference	B1
Rehabilitation Objective Category	Bushfire	Rehabilitation Objective	The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.		

## ROCC0002146

Rehabilitation completion criteria	Bushfire controls implemented.
Indicators	Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.
Validation method	Independent verification report.

## ROB0014608

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Infrastructure Area	Spatial Reference	B1
Rehabilitation Objective Category	Groundwater	Rehabilitation Objective	Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.		

## ROCC0002388

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

## ROB0014574

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Infrastructure Area	Spatial Reference	B1
Rehabilitation Objective Category	Land and water contamination	Rehabilitation Objective	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.		

## ROCC0002354

Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)

### ROCC0002328

Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)

### ROCC0002341

Rehabilitation completion criteria	There are no visible signs of contamination
Indicators	Waste material and/or visible contamination areas on site
Validation method	Statement provided and before/after photos

### ROB0014509

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Infrastructure Area	Spatial Reference	B1
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		

### ROCC0002133

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.

### ROCC0002120

Rehabilitation completion criteria	Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works. Visual – no signs of land instability such as mass movement. Visual - no areas of active gully erosion. Visual - no evidence of tunnel erosion. Visual – no evidence of active scour likely to compromise surface water management structure. Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan. Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.
Indicators	Visual - indicators of erosion and land instability. Visual - indicators that surface water management structure are functioning as designed. Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan. Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.
Validation method	Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).

## ROB0014624

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Infrastructure Area	Spatial Reference	B1
Rehabilitation Objective Category	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended land use.		

### ROCC0002404

Rehabilitation completion criteria	<p>Visual – verification that capping, type and placement present acceptable residual risk to final land use</p> <p>Visual – no signs of impacts on final land use due to residual waste materials indicated by vegetation health</p> <p>Survey - no significant areas of high temperature that impacts vegetation health</p> <p>Survey - coarse rejects and hot material is a minimum of 5m below final landform surface (where records are available)</p>				
Indicators	<p>Visual – capping material placement, type across emplacement</p> <p>Visual – indication of residual waste impacting on final land use – vegetation health</p> <p>Survey - targeted thermal scanning of surface for indications of spontaneous combustion based on visual indicators</p> <p>Survey - survey plans show depth of coarse rejects, hot material and other wastes (where records are available)</p>				
Validation method	Photos, rehabilitation monitoring reports, as constructed surveys, thermal survey outputs, survey records and plans, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.				

## ROB0014535

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Infrastructure Area	Spatial Reference	B1
Rehabilitation Objective Category	Removal of infrastructure	Rehabilitation Objective	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.		

### ROCC0002211

Rehabilitation completion criteria	All utility infrastructure removed.				
Indicators	Removal of all services (power, water, communications) that have been connected on the site as part of the operation.				
Validation method	Statement provided, independent field verification				

### ROCC0002172

Rehabilitation completion criteria	Cores removed.				
Indicators	All drill cores have been removed from site and either taken to authorised storage or disposal location.				
Validation method	Statement provided, independent field verification, disposal/transfer receipts				

### ROCC0002159

Rehabilitation completion criteria	Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.				
Indicators	Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.				
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.				

### ROCC0002185

Rehabilitation completion criteria

Infrastructure removed.

Indicators

All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.

Validation method

As-constructed final landform plan, photos, independent field verification, etc.

### ROCC0002224

Rehabilitation completion criteria

Infrastructure removed.

Indicators

Removal of all water management infrastructure (including pumps, pipes and power).

Validation method

Statement provided, independent field verification and before/after photos.

### ROCC0002198

Rehabilitation completion criteria

Permits and approval documents issued; archival reports (where required) complete and submitted.

Indicators

Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).

Validation method

Copy of any relevant approval documentation.

### ROCC0002237

Rehabilitation completion criteria

Sealing complete.

Indicators

Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.

Validation method

Engineering report/statement, survey records, photos etc.

### ROCC0002250

Rehabilitation completion criteria

Sealing completed.  
OR  
Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.

Indicators

Surveying and sealing of all former underground mine entries.  
OR  
Where sealing records are not available, risk assessment completed to define risk to final land use.

Validation method

Engineering report/statement, risk assessment report, survey records, photos etc.

### ROB0014548

Final Land Use Domain

Agricultural – Grazing

Mining Domain

Infrastructure Area

Spatial Reference

B1

Rehabilitation Objective Category

Retention of infrastructure

Rehabilitation Objective

Any infrastructure that is to remain as part of the final land use is safe.

## ROCC0002302

Rehabilitation completion criteria

Any required Repairs or Upgrades complete.

Indicators

Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.

Validation method

Copy of any relevant plans, photos etc.

## ROCC0002276

Rehabilitation completion criteria

Hazards isolated and secured.

Indicators

Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.

Validation method

Statement provided.

## ROCC0002263

Rehabilitation completion criteria

The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.

Indicators

If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use.  
Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.

Validation method

Surveyed and marked on the as-constructed final landform plan.  
Copy of notification to or correspondence with relevant authority

## ROCC0002289

Rehabilitation completion criteria

The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.

Indicators

The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.

Validation method

Engineering report/statement, photos etc.

## ROB0014561

Final Land Use Domain

Agricultural – Grazing

Mining Domain

Infrastructure Area

Spatial Reference

B1

Rehabilitation Objective Category

Retention of infrastructure

Rehabilitation Objective

Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979).

## ROCC0002315

Rehabilitation completion criteria

Permits and approval documents issued

Indicators

Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use

Validation method

Copy of any relevant approvals or evidence if approvals not required e.g. fencing

## ROB0014595

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Infrastructure Area	Spatial Reference	B1
Rehabilitation Objective Category	Water quality	Rehabilitation Objective	Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining environmental assessments.		
<b>ROCC0002375</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				

## ROB0014588

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Tailings Storage Facility	Spatial Reference	B2
Rehabilitation Objective Category	Agricultural revegetation	Rehabilitation Objective	Land use capability is capable of supporting the target agricultural land use (grazing).		
<b>ROCC0002368</b>					
Rehabilitation completion criteria	Land and Soil Capability classification criteria met. Land capability of revegetation is generally VIII or higher.				
Indicators	Land and Soil Capability classification or is Class VIII or higher				
Validation method	Independent agronomist reports.				

## ROB0014584

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Tailings Storage Facility	Spatial Reference	B2
Rehabilitation Objective Category	Agricultural revegetation	Rehabilitation Objective	Revegetation consists of grassland areas with pockets of native vegetation to support sustainable agricultural activities (grazing) and only requires maintenance that is consistent with the intended final land use.		
<b>ROCC0002364</b>					
Rehabilitation completion criteria	<p>&gt;70% of pasture species are perennial, palatable, and productive</p> <p>Ground cover (vegetation, leaf litter, mulch) is greater than 70%</p> <p>Biomass (Dry Matter (kg DM)/ha) of pasture vegetation is &gt;1500</p> <p>Pasture or Priority weed presence cover is &lt;20%</p> <p>Notes:</p> <p>Priority Weed = Weed listed on the Priority Weed list for the Council Area(s) relevant to GCAA operation. The priority weed list can be accessed via the NSW Department of Primary Industries Weedwise Website (or its latest version).</p> <p>Pasture Weeds = those other weeds that are not listed on the Priority Weed list for the Council Area(s) relevant to GCAA operation, however are unpalatable or otherwise pose a risk to the establishment of the desired pasture composition.</p>				
Indicators	<p>The re-established growth medium substrate (e.g. topsoil / subsoil) is capable of supporting the targeted agricultural regime (grazing) on a sustained basis.</p> <p>Pasture composition assessed, including pasture weeds</p>				
Validation method	Results from Industry research, studies or trials, rehabilitation monitoring reports, independent soil reports, environmental monitoring records, independent agronomist reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15 years).				



## ROB0014523

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Tailings Storage Facility	Spatial Reference	B2
Rehabilitation Objective Category	Bushfire	Rehabilitation Objective	The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.		

### ROCC0002147

Rehabilitation completion criteria	Bushfire controls implemented.
Indicators	Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.
Validation method	Independent verification report.

## ROB0014609

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Tailings Storage Facility	Spatial Reference	B2
Rehabilitation Objective Category	Groundwater	Rehabilitation Objective	Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.		

### ROCC0002389

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

## ROB0014575

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Tailings Storage Facility	Spatial Reference	B2
Rehabilitation Objective Category	Land and water contamination	Rehabilitation Objective	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.		

### ROCC0002329

Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)

### ROCC0002355

Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).
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Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)
<b>ROCC0002342</b>	
Rehabilitation completion criteria	There are no visible signs of contamination
Indicators	Waste material and/or visible contamination areas on site
Validation method	Statement provided and before/after photos

## ROB0014510

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Tailings Storage Facility	Spatial Reference	B2
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		

## ROCC0002134

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.

## ROCC0002121

Rehabilitation completion criteria	Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works. Visual – no signs of land instability such as mass movement. Visual - no areas of active gully erosion. Visual - no evidence of tunnel erosion. Visual – no evidence of active scour likely to compromise surface water management structure. Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan. Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.
Indicators	Visual - indicators of erosion and land instability. Visual - indicators that surface water management structure are functioning as designed. Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan. Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.
Validation method	Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).

## ROB0014625

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Tailings Storage Facility	Spatial Reference	B2
Rehabilitation Objective	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained /		

Category	encapsulated so it does not pose any hazards or constraints for intended land use.				
<b>ROCC0002405</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
<b>ROB0014536</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Tailings Storage Facility	Spatial Reference	B2
Rehabilitation Objective Category	Removal of infrastructure	Rehabilitation Objective	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.		
<b>ROCC0002212</b>					
Rehabilitation completion criteria	All utility infrastructure removed.				
Indicators	Removal of all services (power, water, communications) that have been connected on the site as part of the operation.				
Validation method	Statement provided, independent field verification				
<b>ROCC0002173</b>					
Rehabilitation completion criteria	Cores removed.				
Indicators	All drill cores have been removed from site and either taken to authorised storage or disposal location.				
Validation method	Statement provided, independent field verification, disposal/transfer receipts				
<b>ROCC0002160</b>					
Rehabilitation completion criteria	Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.				
Indicators	Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.				
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.				
<b>ROCC0002186</b>					
Rehabilitation completion criteria	Infrastructure removed.				
Indicators	All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.				
Validation method	As-constructed final landform plan, photos, independent field verification, etc.				
<b>ROCC0002225</b>					

Rehabilitation completion criteria	Infrastructure removed.				
Indicators	Removal of all water management infrastructure (including pumps, pipes and power).				
Validation method	Statement provided, independent field verification and before/after photos.				
<b>ROCC0002199</b>					
Rehabilitation completion criteria	Permits and approval documents issued; archival reports (where required) complete and submitted.				
Indicators	Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).				
Validation method	Copy of any relevant approval documentation.				
<b>ROCC0002238</b>					
Rehabilitation completion criteria	Sealing complete.				
Indicators	Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.				
Validation method	Engineering report/statement, survey records, photos etc.				
<b>ROCC0002251</b>					
Rehabilitation completion criteria	Sealing completed. OR Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.				
Indicators	Surveying and sealing of all former underground mine entries. OR Where sealing records are not available, risk assessment completed to define risk to final land use.				
Validation method	Engineering report/statement, risk assessment report, survey records, photos etc.				
<b>ROB0014549</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Tailings Storage Facility	Spatial Reference	B2
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Any infrastructure that is to remain as part of the final land use is safe.		
<b>ROCC0002303</b>					
Rehabilitation completion criteria	Any required Repairs or Upgrades complete.				
Indicators	Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.				
Validation method	Copy of any relevant plans, photos etc.				
<b>ROCC0002277</b>					
Rehabilitation completion	Hazards isolated and secured.				

criteria	
Indicators	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.
Validation method	Statement provided.
<b>ROCC0002264</b>	
Rehabilitation completion criteria	The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.
Indicators	If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use. Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.
Validation method	Surveyed and marked on the as-constructed final landform plan. Copy of notification to or correspondence with relevant authority
<b>ROCC0002290</b>	
Rehabilitation completion criteria	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.
Indicators	The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.
Validation method	Engineering report/statement, photos etc.
<b>ROB0014562</b>	
Final Land Use Domain	Agricultural – Grazing      Mining Domain      Tailings Storage Facility      Spatial Reference      B2
Rehabilitation Objective Category	Retention of infrastructure      Rehabilitation Objective      Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979).
<b>ROCC0002316</b>	
Rehabilitation completion criteria	Permits and approval documents issued
Indicators	Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use
Validation method	Copy of any relevant approvals or evidence if approvals not required e.g. fencing
<b>ROB0014596</b>	
Final Land Use Domain	Agricultural – Grazing      Mining Domain      Tailings Storage Facility      Spatial Reference      B2
Rehabilitation Objective Category	Water quality      Rehabilitation Objective      Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining environmental assessments.
<b>ROCC0002376</b>	
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
<b>ROB0014589</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Water Management Area	Spatial Reference	B3
Rehabilitation Objective Category	Agricultural revegetation	Rehabilitation Objective	Land use capability is capable of supporting the target agricultural land use (grazing).		
<b>ROCC0002369</b>					
Rehabilitation completion criteria	Land and Soil Capability classification criteria met. Land capability of revegetation is generally VI or higher.				
Indicators	Land and Soil Capability classification or is Class VI or higher				
Validation method	Independent agronomist reports.				
<b>ROB0014585</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Water Management Area	Spatial Reference	B3
Rehabilitation Objective Category	Agricultural revegetation	Rehabilitation Objective	Revegetation consists of grassland areas with pockets of native vegetation to support sustainable agricultural activities (grazing) and only requires maintenance that is consistent with the intended final land use.		
<b>ROCC0002365</b>					
Rehabilitation completion criteria	<p>&gt;70% of pasture species are perennial, palatable, and productive            Ground cover (vegetation, leaf litter, mulch) is greater than 70%            Biomass (Dry Matter (kg DM)/ha) of pasture vegetation is &gt;1500            Pasture or Priority weed presence cover is &lt;20%</p> <p>Notes:            Priority Weed = Weed listed on the Priority Weed list for the Council Area(s) relevant to GCAA operation. The priority weed list can be accessed via the NSW Department of Primary Industries Weedwise Website (or its latest version).            Pasture Weeds = those other weeds that are not listed on the Priority Weed list for the Council Area(s) relevant to GCAA operation, however are unpalatable or otherwise pose a risk to the establishment of the desired pasture composition.</p>				
Indicators	<p>The re-established growth medium substrate (e.g. topsoil / subsoil) is capable of supporting the targeted agricultural regime (grazing) on a sustained basis.</p> <p>Pasture composition assessed, including pasture weeds</p>				
Validation method	Results from Industry research, studies or trials, rehabilitation monitoring reports, independent soil reports, environmental monitoring records, independent agronomist reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15 years).				
<b>ROB0014524</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Water Management Area	Spatial Reference	B3
Rehabilitation Objective Category	Bushfire	Rehabilitation Objective	The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.		
<b>ROCC0002148</b>					
Rehabilitation completion	Bushfire controls implemented.				

criteria					
Indicators	Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.				
Validation method	Independent verification report.				
<b>ROB0014610</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Water Management Area	Spatial Reference	B3
Rehabilitation Objective Category	Groundwater	Rehabilitation Objective	Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.		
<b>ROCC0002390</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
<b>ROB0014576</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Water Management Area	Spatial Reference	B3
Rehabilitation Objective Category	Land and water contamination	Rehabilitation Objective	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.		
<b>ROCC0002330</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002356</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002343</b>					
Rehabilitation completion criteria	There are no visible signs of contamination				



Indicators	Waste material and/or visible contamination areas on site				
Validation method	Statement provided and before/after photos				
<b>ROB0014511</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Water Management Area	Spatial Reference	B3
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		
<b>ROCC0002135</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
<b>ROCC0002122</b>					
Rehabilitation completion criteria	<p>Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works.</p> <p>Visual – no signs of land instability such as mass movement.</p> <p>Visual - no areas of active gully erosion.</p> <p>Visual - no evidence of tunnel erosion.</p> <p>Visual – no evidence of active scour likely to compromise surface water management structure.</p> <p>Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.</p>				
Indicators	<p>Visual - indicators of erosion and land instability.</p> <p>Visual - indicators that surface water management structure are functioning as designed.</p> <p>Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.</p>				
Validation method	<p>Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform.</p> <p>Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).</p>				
<b>ROB0014626</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Water Management Area	Spatial Reference	B3
Rehabilitation Objective Category	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended land use.		
<b>ROCC0002406</b>					
Rehabilitation completion criteria	<p>Visual – verification that capping, type and placement present acceptable residual risk to final land use</p> <p>Visual – no signs of impacts on final land use due to residual waste materials indicated by vegetation health</p> <p>Survey - no significant areas of high temperature that impacts vegetation health</p> <p>Survey - coarse rejects and hot material is a minimum of 5m below final landform surface (where records are available)</p>				
Indicators	Visual – capping material placement, type across emplacement				

Validation method	Visual – indication of residual waste impacting on final land use – vegetation health Survey - targeted thermal scanning of surface for indications of spontaneous combustion based on visual indicators Survey - survey plans show depth of coarse rejects, hot material and other wastes (where records are available)				
Validation method	Photos, rehabilitation monitoring reports, as constructed surveys, thermal survey outputs, survey records and plans, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.				
<b>ROB0014537</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Water Management Area	Spatial Reference	B3
Rehabilitation Objective Category	Removal of infrastructure	Rehabilitation Objective	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.		
<b>ROCC0002213</b>					
Rehabilitation completion criteria	All utility infrastructure removed.				
Indicators	Removal of all services (power, water, communications) that have been connected on the site as part of the operation.				
Validation method	Statement provided, independent field verification				
<b>ROCC0002174</b>					
Rehabilitation completion criteria	Cores removed.				
Indicators	All drill cores have been removed from site and either taken to authorised storage or disposal location.				
Validation method	Statement provided, independent field verification, disposal/transfer receipts				
<b>ROCC0002161</b>					
Rehabilitation completion criteria	Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.				
Indicators	Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.				
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.				
<b>ROCC0002187</b>					
Rehabilitation completion criteria	Infrastructure removed.				
Indicators	All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.				
Validation method	As-constructed final landform plan, photos, independent field verification, etc.				
<b>ROCC0002226</b>					
Rehabilitation completion criteria	Infrastructure removed.				
Indicators	Removal of all water management infrastructure (including pumps, pipes and power).				

Validation method	Statement provided, independent field verification and before/after photos.			
<b>ROCC0002200</b>				
Rehabilitation completion criteria	Permits and approval documents issued; archival reports (where required) complete and submitted.			
Indicators	Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).			
Validation method	Copy of any relevant approval documentation.			
<b>ROCC0002239</b>				
Rehabilitation completion criteria	Sealing complete.			
Indicators	Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.			
Validation method	Engineering report/statement, survey records, photos etc.			
<b>ROCC0002252</b>				
Rehabilitation completion criteria	Sealing completed. OR Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.			
Indicators	Surveying and sealing of all former underground mine entries. OR Where sealing records are not available, risk assessment completed to define risk to final land use.			
Validation method	Engineering report/statement, risk assessment report, survey records, photos etc.			
<b>ROB0014550</b>				
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Water Management Area	Spatial Reference B3
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Any infrastructure that is to remain as part of the final land use is safe.	
<b>ROCC0002304</b>				
Rehabilitation completion criteria	Any required Repairs or Upgrades complete.			
Indicators	Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.			
Validation method	Copy of any relevant plans, photos etc.			
<b>ROCC0002278</b>				
Rehabilitation completion criteria	Hazards isolated and secured.			
Indicators	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.			
Validation method	Statement provided.			

## ROCC0002265

Rehabilitation completion criteria

The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.

Indicators

If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use.  
Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.

Validation method

Surveyed and marked on the as-constructed final landform plan.  
Copy of notification to or correspondence with relevant authority

## ROCC0002291

Rehabilitation completion criteria

The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.

Indicators

The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.

Validation method

Engineering report/statement, photos etc.

## ROB0014563

Final Land Use Domain

Agricultural – Grazing

Mining Domain

Water Management Area

Spatial Reference

B3

Rehabilitation Objective Category

Retention of infrastructure

Rehabilitation Objective

Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979).

## ROCC0002317

Rehabilitation completion criteria

Permits and approval documents issued

Indicators

Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use

Validation method

Copy of any relevant approvals or evidence if approvals not required e.g. fencing

## ROB0014597

Final Land Use Domain

Agricultural – Grazing

Mining Domain

Water Management Area

Spatial Reference

B3

Rehabilitation Objective Category

Water quality

Rehabilitation Objective

Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining environmental assessments.

## ROCC0002377

Rehabilitation completion criteria

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Indicators

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Validation method

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

## ROB0014590

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Overburden Emplacement Area	Spatial Reference	B4
Rehabilitation Objective Category	Agricultural revegetation	Rehabilitation Objective	Land use capability is capable of supporting the target agricultural land use (grazing).		
<b>ROCC0002370</b>					
Rehabilitation completion criteria	Land and Soil Capability classification or is Class VI or higher, except for Mountain Block area which is Class VIII				
Indicators	Land and Soil Capability classification or is Class VI or higher, except for Mountain Block area which is Class VIII				
Validation method	Independent agronomist reports.				

## ROB0014586

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Overburden Emplacement Area	Spatial Reference	B4
Rehabilitation Objective Category	Agricultural revegetation	Rehabilitation Objective	Revegetation consists of grassland areas with pockets of native vegetation to support sustainable agricultural activities (grazing) and only requires maintenance that is consistent with the intended final land use.		
<b>ROCC0002366</b>					
Rehabilitation completion criteria	<p>&gt;70% of pasture species are perennial, palatable, and productive</p> <p>Ground cover (vegetation, leaf litter, mulch) is greater than 70%</p> <p>Biomass (Dry Matter (kg DM)/ha) of pasture vegetation is &gt;1500</p> <p>Pasture or Priority weed presence cover is &lt;20%</p> <p>Notes:</p> <p>Priority Weed = Weed listed on the Priority Weed list for the Council Area(s) relevant to GCAA operation. The priority weed list can be accessed via the NSW Department of Primary Industries Weedwise Website (or its latest version).</p> <p>Pasture Weeds = those other weeds that are not listed on the Priority Weed list for the Council Area(s) relevant to GCAA operation, however are unpalatable or otherwise pose a risk to the establishment of the desired pasture composition.</p>				
Indicators	<p>The re-established growth medium substrate (e.g. topsoil / subsoil) is capable of supporting the targeted agricultural regime (grazing) on a sustained basis.</p> <p>Pasture composition assessed, including pasture weeds</p>				
Validation method	Results from Industry research, studies or trials, rehabilitation monitoring reports, independent soil reports, environmental monitoring records, independent agronomist reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15 years).				

## ROB0014525

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Overburden Emplacement Area	Spatial Reference	B4
Rehabilitation Objective Category	Bushfire	Rehabilitation Objective	The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.		
<b>ROCC0002149</b>					
Rehabilitation completion criteria	Bushfire controls implemented.				
Indicators	Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.				
Validation method	Independent verification report.				

## ROB0014611

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Overburden Emplacement Area	Spatial Reference	B4
Rehabilitation Objective Category	Groundwater	Rehabilitation Objective	Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.		

### ROCC0002391

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

## ROB0014577

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Overburden Emplacement Area	Spatial Reference	B4
Rehabilitation Objective Category	Land and water contamination	Rehabilitation Objective	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.		

### ROCC0002331

Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)

### ROCC0002357

Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)

### ROCC0002344

Rehabilitation completion criteria	There are no visible signs of contamination
Indicators	Waste material and/or visible contamination areas on site
Validation method	Statement provided and before/after photos

## ROB0014512



Final Land Use Domain	Agricultural – Grazing	Mining Domain	Overburden Emplacement Area	Spatial Reference	B4
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		
<b>ROCC0002136</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
<b>ROCC0002123</b>					
Rehabilitation completion criteria	<p>Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works.</p> <p>Visual – no signs of land instability such as mass movement.</p> <p>Visual - no areas of active gully erosion.</p> <p>Visual - no evidence of tunnel erosion.</p> <p>Visual – no evidence of active scour likely to compromise surface water management structure.</p> <p>Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.</p>				
Indicators	<p>Visual - indicators of erosion and land instability.</p> <p>Visual - indicators that surface water management structure are functioning as designed.</p> <p>Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.</p>				
Validation method	<p>Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform.</p> <p>Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).</p>				
<b>ROB0014627</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Overburden Emplacement Area	Spatial Reference	B4
Rehabilitation Objective Category	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended land use.		
<b>ROCC0002407</b>					
Rehabilitation completion criteria	<p>Visual – verification that capping, type and placement present acceptable residual risk to final land use</p> <p>Visual – no signs of impacts on final land use due to residual waste materials indicated by vegetation health</p> <p>Survey - no significant areas of high temperature that impacts vegetation health</p> <p>Survey - coarse rejects and hot material is a minimum of 5m below final landform surface (where records are available)</p>				
Indicators	<p>Visual – capping material placement, type across emplacement</p> <p>Visual – indication of residual waste impacting on final land use – vegetation health</p> <p>Survey - targeted thermal scanning of surface for indications of spontaneous combustion based on visual indicators</p> <p>Survey - survey plans show depth of coarse rejects, hot material and other wastes (where records are available)</p>				
Validation method	Photos, rehabilitation monitoring reports, as constructed surveys, thermal survey outputs, survey records and plans, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.				



## ROB0014538

Final Land Use Domain

Agricultural – Grazing

Mining Domain

Overburden Emplacement Area

Spatial Reference

B4

Rehabilitation Objective Category

Removal of infrastructure

Rehabilitation Objective

All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.

### ROCC0002214

Rehabilitation completion criteria

All utility infrastructure removed.

Indicators

Removal of all services (power, water, communications) that have been connected on the site as part of the operation.

Validation method

Statement provided, independent field verification

### ROCC0002175

Rehabilitation completion criteria

Cores removed.

Indicators

All drill cores have been removed from site and either taken to authorised storage or disposal location.

Validation method

Statement provided, independent field verification, disposal/transfer receipts

### ROCC0002162

Rehabilitation completion criteria

Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.

Indicators

Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.

Validation method

Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.

### ROCC0002188

Rehabilitation completion criteria

Infrastructure removed.

Indicators

All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.

Validation method

As-constructed final landform plan, photos, independent field verification, etc.

### ROCC0002227

Rehabilitation completion criteria

Infrastructure removed.

Indicators

Removal of all water management infrastructure (including pumps, pipes and power).

Validation method

Statement provided, independent field verification and before/after photos.

### ROCC0002201

Rehabilitation completion criteria

Permits and approval documents issued; archival reports (where required) complete and submitted.

Indicators	Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).				
Validation method	Copy of any relevant approval documentation.				
<b>ROCC0002240</b>					
Rehabilitation completion criteria	Sealing complete.				
Indicators	Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.				
Validation method	Engineering report/statement, survey records, photos etc.				
<b>ROCC0002253</b>					
Rehabilitation completion criteria	Sealing completed. OR Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.				
Indicators	Surveying and sealing of all former underground mine entries. OR Where sealing records are not available, risk assessment completed to define risk to final land use.				
Validation method	Engineering report/statement, risk assessment report, survey records, photos etc.				
<b>ROB0014551</b>					
Final Land Use Domain	Agricultural – Grazing	Mining Domain	Overburden Emplacement Area	Spatial Reference	B4
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Any infrastructure that is to remain as part of the final land use is safe.		
<b>ROCC0002305</b>					
Rehabilitation completion criteria	Any required Repairs or Upgrades complete.				
Indicators	Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.				
Validation method	Copy of any relevant plans, photos etc.				
<b>ROCC0002279</b>					
Rehabilitation completion criteria	Hazards isolated and secured.				
Indicators	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.				
Validation method	Statement provided.				
<b>ROCC0002266</b>					
Rehabilitation completion criteria	The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.				
Indicators	If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use.				

	Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.				
Validation method	Surveyed and marked on the as-constructed final landform plan. Copy of notification to or correspondence with relevant authority				
<b>ROCC0002292</b>					
Rehabilitation completion criteria	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.				
Indicators	The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.				
Validation method	Engineering report/statement, photos etc.				

## ROB0014564

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Overburden Emplacement Area	Spatial Reference	B4
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979).		

## ROCC0002318

Rehabilitation completion criteria	Permits and approval documents issued				
Indicators	Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use				
Validation method	Copy of any relevant approvals or evidence if approvals not required e.g. fencing				

## ROB0014598

Final Land Use Domain	Agricultural – Grazing	Mining Domain	Overburden Emplacement Area	Spatial Reference	B4
Rehabilitation Objective Category	Water quality	Rehabilitation Objective	Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining environmental assessments.		

## ROCC0002378

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				

## ROB0014526

Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Infrastructure Area	Spatial Reference	D1
Rehabilitation Objective Category	Bushfire	Rehabilitation Objective	The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.		

## ROCC0002150

Rehabilitation completion criteria	Bushfire controls implemented.				
Indicators	Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.				
Validation method	Independent verification report.				
<b>ROB0014612</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Infrastructure Area	Spatial Reference	D1
Rehabilitation Objective Category	Groundwater	Rehabilitation Objective	Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.		
<b>ROCC0002392</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
<b>ROB0014578</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Infrastructure Area	Spatial Reference	D1
Rehabilitation Objective Category	Land and water contamination	Rehabilitation Objective	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.		
<b>ROCC0002358</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002332</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002345</b>					
Rehabilitation completion criteria	There are no visible signs of contamination				

Indicators	Waste material and/or visible contamination areas on site				
Validation method	Statement provided and before/after photos				
<b>ROB0014513</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Infrastructure Area	Spatial Reference	D1
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		
<b>ROCC0002137</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
<b>ROCC0002124</b>					
Rehabilitation completion criteria	<p>Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works.</p> <p>Visual - no signs of land instability such as mass movement.</p> <p>Visual - no areas of active gully erosion.</p> <p>Visual - no evidence of tunnel erosion.</p> <p>Visual - no evidence of active scour likely to compromise surface water management structure.</p> <p>Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.</p>				
Indicators	<p>Visual - indicators of erosion and land instability.</p> <p>Visual - indicators that surface water management structure are functioning as designed.</p> <p>Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.</p>				
Validation method	<p>Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform.</p> <p>Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).</p>				
<b>ROB0014628</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Infrastructure Area	Spatial Reference	D1
Rehabilitation Objective Category	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended land use.		
<b>ROCC0002408</b>					
Rehabilitation completion criteria	<p>Visual - verification that capping, type and placement present acceptable residual risk to final land use</p> <p>Visual - no signs of impacts on final land use due to residual waste materials indicated by vegetation health</p> <p>Survey - no significant areas of high temperature that impacts vegetation health</p> <p>Survey - coarse rejects and hot material is a minimum of 5m below final landform surface (where records are available)</p>				
Indicators	Visual - capping material placement, type across emplacement				

	Visual – indication of residual waste impacting on final land use – vegetation health Survey - targeted thermal scanning of surface for indications of spontaneous combustion based on visual indicators Survey - survey plans show depth of coarse rejects, hot material and other wastes (where records are available)				
Validation method	Photos, rehabilitation monitoring reports, as constructed surveys, thermal survey outputs, survey records and plans, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.				
<b>ROB0014641</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Infrastructure Area	Spatial Reference	D1
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	Levels of ecosystem function have been established that demonstrate the rehabilitation offset area is self-sustainable.		
<b>ROCC0002421</b>					
Rehabilitation completion criteria	Cover of 'high threat exotic' (HTE) species is ≤ 90th percentile of values observed at suitable reference sites <sup>1</sup> . 1 Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.				
Indicators	Cover of exotic species within 20m x 20m fixed monitoring plots is low				
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that demonstrate long term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.				
<b>ROCC0002430</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators				
<b>ROCC0002424</b>					
Rehabilitation completion criteria	Litter cover is between the 10th and 90th percentile of values from suitable reference sites <sup>1</sup> , or an ongoing trend toward this target range is observed. 1 - Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.				
Indicators	Indicators of nutrient cycling are suitable for sustaining the target vegetation community				
Validation method	Rehabilitation monitoring reports, independent soil reports (where required) that demonstrate long term function of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.				
<b>ROCC0002427</b>					
Rehabilitation completion criteria	The number of second generation trees are ≥10th percentile of values recorded at suitable reference sites <sup>1</sup> . 1 Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.				



Indicators	Evidence of plant regeneration from 20m x 20m monitoring plots or a walk over of the ecological rehabilitation area				
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that demonstrate long term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM and walkover inspections undertaken to identify presence of recruitment.				
<b>ROB0014633</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Infrastructure Area	Spatial Reference	D1
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	The vegetation composition of the rehabilitation offset area is recognisable as the target vegetation communities (Central Hunter Box-Ironbark Woodland) as described by the NSW Scientific Final Committee Determination.		
<b>ROCC0002413</b>					
Rehabilitation completion criteria	A minimum of 10 of the 38 characteristic flora species contained in the Central Hunter Grey Box – Ironbark Woodland Final Determination (NSW Scientific Committee 2010) is present in a standard 20 m x 20 m floristic sampling plot.				
Indicators	The number of characteristic species for Central Hunter Box-Ironbark Woodland present are characteristic of the NSW Scientific Committee Final Determination.				
Validation method	Before and after photos, statistically robust rehabilitation monitoring reports, independent ecological reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years All native vascular plant species are recorded to species level from fixed monitoring plots. Monitoring undertaken in accordance with BAM.				
<b>ROB0014637</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Infrastructure Area	Spatial Reference	D1
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	The vegetation structure of the rehabilitation offset area is recognisable as, or is trending towards (based on ongoing monitoring data) the target vegetation communities (Central Hunter Box-Ironbark Woodland) as described by the NSW Scientific Final Committee Determination.		
<b>ROCC0002417</b>					
Rehabilitation completion criteria	Within a standard 20 m x 20 m floristic sampling plot tree (TG) foliage cover is between 10% and 70% AND grass (GG) and forb (FG) growth forms are present.				
Indicators	The growth forms present are consistent with, or are trending toward, those of the target vegetation types.				
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required). Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.				
<b>ROB0014539</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Infrastructure Area	Spatial Reference	D1
Rehabilitation Objective Category	Removal of infrastructure	Rehabilitation Objective	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.		
<b>ROCC0002215</b>					
Rehabilitation completion	All utility infrastructure removed.				



criteria	
Indicators	Removal of all services (power, water, communications) that have been connected on the site as part of the operation.
Validation method	Statement provided, independent field verification
<b>ROCC0002176</b>	
Rehabilitation completion criteria	Cores removed.
Indicators	All drill cores have been removed from site and either taken to authorised storage or disposal location.
Validation method	Statement provided, independent field verification, disposal/transfer receipts
<b>ROCC0002163</b>	
Rehabilitation completion criteria	Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.
Indicators	Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.
<b>ROCC0002189</b>	
Rehabilitation completion criteria	Infrastructure removed.
Indicators	All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.
Validation method	As-constructed final landform plan, photos, independent field verification, etc.
<b>ROCC0002228</b>	
Rehabilitation completion criteria	Infrastructure removed.
Indicators	Removal of all water management infrastructure (including pumps, pipes and power).
Validation method	Statement provided, independent field verification and before/after photos.
<b>ROCC0002202</b>	
Rehabilitation completion criteria	Permits and approval documents issued; archival reports (where required) complete and submitted.
Indicators	Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).
Validation method	Copy of any relevant approval documentation.
<b>ROCC0002241</b>	
Rehabilitation completion criteria	Sealing complete.

Indicators	Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.				
Validation method	Engineering report/statement, survey records, photos etc.				
<b>ROCC0002254</b>					
Rehabilitation completion criteria	Sealing completed. OR Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.				
Indicators	Surveying and sealing of all former underground mine entries. OR Where sealing records are not available, risk assessment completed to define risk to final land use.				
Validation method	Engineering report/statement, risk assessment report, survey records, photos etc.				
<b>ROB0014552</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Infrastructure Area	Spatial Reference	D1
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Any infrastructure that is to remain as part of the final land use is safe.		
<b>ROCC0002306</b>					
Rehabilitation completion criteria	Any required Repairs or Upgrades complete.				
Indicators	Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.				
Validation method	Copy of any relevant plans, photos etc.				
<b>ROCC0002280</b>					
Rehabilitation completion criteria	Hazards isolated and secured.				
Indicators	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.				
Validation method	Statement provided.				
<b>ROCC0002267</b>					
Rehabilitation completion criteria	The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.				
Indicators	If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use. Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.				
Validation method	Surveyed and marked on the as-constructed final landform plan. Copy of notification to or correspondence with relevant authority				
<b>ROCC0002293</b>					
Rehabilitation completion criteria	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.				

Indicators	The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.				
Validation method	Engineering report/statement, photos etc.				

## ROB0014565

Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Infrastructure Area	Spatial Reference	D1
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979).		

## ROCC0002319

Rehabilitation completion criteria	Permits and approval documents issued				
Indicators	Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use				
Validation method	Copy of any relevant approvals or evidence if approvals not required e.g. fencing				

## ROB0014599

Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Infrastructure Area	Spatial Reference	D1
Rehabilitation Objective Category	Water quality	Rehabilitation Objective	Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining environmental assessments.		

## ROCC0002379

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				

## ROB0014527

Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Water Management Area	Spatial Reference	D3
Rehabilitation Objective Category	Bushfire	Rehabilitation Objective	The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.		

## ROCC0002151

Rehabilitation completion criteria	Bushfire controls implemented.				
Indicators	Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.				
Validation method	Independent verification report.				

## ROB0014613

Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Water Management Area	Spatial Reference	D3
Rehabilitation Objective Category	Groundwater	Rehabilitation Objective	Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.		
<b>ROCC0002393</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				

## ROB0014579

Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Water Management Area	Spatial Reference	D3
Rehabilitation Objective Category	Land and water contamination	Rehabilitation Objective	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.		
<b>ROCC0002333</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				

## ROCC0002359

Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				

## ROCC0002346

Rehabilitation completion criteria	There are no visible signs of contamination				
Indicators	Waste material and/or visible contamination areas on site				
Validation method	Statement provided and before/after photos				

## ROB0014514

Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Water Management Area	Spatial Reference	D3
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Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		
<b>ROCC0002138</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
<b>ROCC0002125</b>					
Rehabilitation completion criteria	<p>Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works.</p> <p>Visual – no signs of land instability such as mass movement.</p> <p>Visual - no areas of active gully erosion.</p> <p>Visual - no evidence of tunnel erosion.</p> <p>Visual – no evidence of active scour likely to compromise surface water management structure.</p> <p>Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.</p>				
Indicators	<p>Visual - indicators of erosion and land instability.</p> <p>Visual - indicators that surface water management structure are functioning as designed.</p> <p>Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.</p>				
Validation method	<p>Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform.</p> <p>Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).</p>				
<b>ROB0014629</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Water Management Area	Spatial Reference	D3
Rehabilitation Objective Category	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended land use.		
<b>ROCC0002409</b>					
Rehabilitation completion criteria	<p>Visual – verification that capping, type and placement present acceptable residual risk to final land use</p> <p>Visual – no signs of impacts on final land use due to residual waste materials indicated by vegetation health</p> <p>Survey - no significant areas of high temperature that impacts vegetation health</p> <p>Survey - coarse rejects and hot material is a minimum of 5m below final landform surface (where records are available)</p>				
Indicators	<p>Visual – capping material placement, type across emplacement</p> <p>Visual – indication of residual waste impacting on final land use – vegetation health</p> <p>Survey - targeted thermal scanning of surface for indications of spontaneous combustion based on visual indicators</p> <p>Survey - survey plans show depth of coarse rejects, hot material and other wastes (where records are available)</p>				
Validation method	Photos, rehabilitation monitoring reports, as constructed surveys, thermal survey outputs, survey records and plans, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.				
<b>ROB0014642</b>					

Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Water Management Area	Spatial Reference	D3
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	Levels of ecosystem function have been established that demonstrate the rehabilitation offset area is self-sustainable.		
<b>ROCC0002422</b>					
Rehabilitation completion criteria	Cover of 'high threat exotic' (HTE) species is $\leq$ 90th percentile of values observed at suitable reference sites <sup>1</sup> . 1 Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.				
Indicators	Cover of exotic species within 20m x 20m fixed monitoring plots is low				
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that demonstrate long term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.				
<b>ROCC0002431</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators				
<b>ROCC0002425</b>					
Rehabilitation completion criteria	Litter cover is between the 10th and 90th percentile of values from suitable reference sites <sup>1</sup> , or an ongoing trend toward this target range is observed. 1 - Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.				
Indicators	Indicators of nutrient cycling are suitable for sustaining the target vegetation community				
Validation method	Rehabilitation monitoring reports, independent soil reports (where required) that demonstrate long term function of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.				
<b>ROCC0002428</b>					
Rehabilitation completion criteria	The number of second generation trees are $\geq$ 10th percentile of values recorded at suitable reference sites <sup>1</sup> . 1 Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.				
Indicators	Evidence of plant regeneration from 20m x 20m monitoring plots or a walk over of the ecological rehabilitation area				
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that demonstrate long term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM and walkover inspections undertaken to identify presence of recruitment.				
<b>ROB0014634</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Water Management Area	Spatial Reference	D3



Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	The vegetation composition of the rehabilitation offset area is recognisable as the target vegetation communities (Central Hunter Box-Ironbark Woodland) as described by the NSW Scientific Final Committee Determination.		
<b>ROCC0002414</b>					
Rehabilitation completion criteria	A minimum of 10 of the 38 characteristic flora species contained in the Central Hunter Grey Box – Ironbark Woodland Final Determination (NSW Scientific Committee 2010) is present in a standard 20 m x 20 m floristic sampling plot.				
Indicators	The number of characteristic species for Central Hunter Box-Ironbark Woodland present are characteristic of the NSW Scientific Committee Final Determination.				
Validation method	Before and after photos, statistically robust rehabilitation monitoring reports, independent ecological reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years All native vascular plant species are recorded to species level from fixed monitoring plots. Monitoring undertaken in accordance with BAM.				
<b>ROB0014638</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Water Management Area	Spatial Reference	D3
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	The vegetation structure of the rehabilitation offset area is recognisable as, or is trending towards (based on ongoing monitoring data) the target vegetation communities (Central Hunter Box-Ironbark Woodland) as described by the NSW Scientific Final Committee Determination.		
<b>ROCC0002418</b>					
Rehabilitation completion criteria	Within a standard 20 m x 20 m floristic sampling plot tree (TG) foliage cover is between 10% and 70% AND grass (GG) and forb (FG) growth forms are present.				
Indicators	The growth forms present are consistent with, or are trending toward, those of the target vegetation types.				
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required). Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.				
<b>ROB0014540</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Water Management Area	Spatial Reference	D3
Rehabilitation Objective Category	Removal of infrastructure	Rehabilitation Objective	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.		
<b>ROCC0002216</b>					
Rehabilitation completion criteria	All utility infrastructure removed.				
Indicators	Removal of all services (power, water, communications) that have been connected on the site as part of the operation.				
Validation method	Statement provided, independent field verification				
<b>ROCC0002177</b>					
Rehabilitation completion criteria	Cores removed.				



Indicators	All drill cores have been removed from site and either taken to authorised storage or disposal location.
Validation method	Statement provided, independent field verification, disposal/transfer receipts
<b>ROCC0002164</b>	
Rehabilitation completion criteria	Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.
Indicators	Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.
<b>ROCC0002190</b>	
Rehabilitation completion criteria	Infrastructure removed.
Indicators	All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.
Validation method	As-constructed final landform plan, photos, independent field verification, etc.
<b>ROCC0002229</b>	
Rehabilitation completion criteria	Infrastructure removed.
Indicators	Removal of all water management infrastructure (including pumps, pipes and power).
Validation method	Statement provided, independent field verification and before/after photos.
<b>ROCC0002203</b>	
Rehabilitation completion criteria	Permits and approval documents issued; archival reports (where required) complete and submitted.
Indicators	Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).
Validation method	Copy of any relevant approval documentation.
<b>ROCC0002242</b>	
Rehabilitation completion criteria	Sealing complete.
Indicators	Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.
Validation method	Engineering report/statement, survey records, photos etc.
<b>ROCC0002255</b>	
Rehabilitation completion criteria	Sealing completed. OR Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.

Indicators	Surveying and sealing of all former underground mine entries. OR Where sealing records are not available, risk assessment completed to define risk to final land use.
Validation method	Engineering report/statement, risk assessment report, survey records, photos etc.

## ROB0014553

Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Water Management Area	Spatial Reference	D3
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Any infrastructure that is to remain as part of the final land use is safe.		

## ROCC0002307

Rehabilitation completion criteria	Any required Repairs or Upgrades complete.
Indicators	Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.
Validation method	Copy of any relevant plans, photos etc.

## ROCC0002281

Rehabilitation completion criteria	Hazards isolated and secured.
Indicators	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.
Validation method	Statement provided.

## ROCC0002268

Rehabilitation completion criteria	The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.
Indicators	If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use. Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.
Validation method	Surveyed and marked on the as-constructed final landform plan. Copy of notification to or correspondence with relevant authority

## ROCC0002294

Rehabilitation completion criteria	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.
Indicators	The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.
Validation method	Engineering report/statement, photos etc.

## ROB0014566

Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Water Management Area	Spatial Reference	D3
Rehabilitation Objective	Retention of infrastructure	Rehabilitation Objective	Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the		

Category	Environmental Planning and Assessment Act 1979).				
<b>ROCC0002320</b>					
Rehabilitation completion criteria	Permits and approval documents issued				
Indicators	Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use				
Validation method	Copy of any relevant approvals or evidence if approvals not required e.g. fencing				
<b>ROB0014600</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Water Management Area	Spatial Reference	D3
Rehabilitation Objective Category	Water quality	Rehabilitation Objective	Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining environmental assessments.		
<b>ROCC0002380</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
<b>ROB0014528</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Bushfire	Rehabilitation Objective	The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.		
<b>ROCC0002152</b>					
Rehabilitation completion criteria	Bushfire controls implemented.				
Indicators	Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.				
Validation method	Independent verification report.				
<b>ROB0014614</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Groundwater	Rehabilitation Objective	Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.		
<b>ROCC0002394</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				

Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
<b>ROB0014580</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Land and water contamination	Rehabilitation Objective	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.		
<b>ROCC0002334</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002360</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002347</b>					
Rehabilitation completion criteria	There are no visible signs of contamination				
Indicators	Waste material and/or visible contamination areas on site				
Validation method	Statement provided and before/after photos				
<b>ROB0014515</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		
<b>ROCC0002139</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				

Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
<b>ROCC0002126</b>					
Rehabilitation completion criteria	<p>Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works.</p> <p>Visual – no signs of land instability such as mass movement.</p> <p>Visual - no areas of active gully erosion.</p> <p>Visual - no evidence of tunnel erosion.</p> <p>Visual – no evidence of active scour likely to compromise surface water management structure.</p> <p>Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.</p>				
Indicators	<p>Visual - indicators of erosion and land instability.</p> <p>Visual - indicators that surface water management structure are functioning as designed.</p> <p>Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.</p>				
Validation method	<p>Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform.</p> <p>Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).</p>				
<b>ROB0014630</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended land use.		
<b>ROCC0002410</b>					
Rehabilitation completion criteria	<p>Visual – verification that capping, type and placement present acceptable residual risk to final land use</p> <p>Visual – no signs of impacts on final land use due to residual waste materials indicated by vegetation health</p> <p>Survey - no significant areas of high temperature that impacts vegetation health</p> <p>Survey - coarse rejects and hot material is a minimum of 5m below final landform surface (where records are available)</p>				
Indicators	<p>Visual – capping material placement, type across emplacement</p> <p>Visual – indication of residual waste impacting on final land use – vegetation health</p> <p>Survey - targeted thermal scanning of surface for indications of spontaneous combustion based on visual indicators</p> <p>Survey - survey plans show depth of coarse rejects, hot material and other wastes (where records are available)</p>				
Validation method	Photos, rehabilitation monitoring reports, as constructed surveys, thermal survey outputs, survey records and plans, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.				
<b>ROB0014643</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	Levels of ecosystem function have been established that demonstrate the rehabilitation offset area is self-sustainable.		
<b>ROCC0002423</b>					
Rehabilitation completion criteria	<p>Cover of 'high threat exotic' (HTE) species is <math>\leq</math> 90th percentile of values observed at suitable reference sites<sup>1</sup>.</p> <p><sup>1</sup> Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed</p>				

	infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.				
Indicators	Cover of exotic species within 20m x 20m fixed monitoring plots is low				
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that demonstrate long term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.				
<b>ROCC0002432</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved. Additional ecosystem function criteria are required for soil health and resilience indicators				
<b>ROCC0002426</b>					
Rehabilitation completion criteria	Litter cover is between the 10th and 90th percentile of values from suitable reference sites <sup>1</sup> , or an ongoing trend toward this target range is observed. 1 - Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.				
Indicators	Indicators of nutrient cycling are suitable for sustaining the target vegetation community				
Validation method	Rehabilitation monitoring reports, independent soil reports (where required) that demonstrate long term function of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.				
<b>ROCC0002429</b>					
Rehabilitation completion criteria	The number of second generation trees are ≥10th percentile of values recorded at suitable reference sites <sup>1</sup> . 1 Suitable reference sites are those that represent good quality and mature examples of the target community, where evidence of disturbance or modification, including vegetation clearing, timber harvesting, weed infestation, grazing, fire, erosion, dieback or disease, is absent or minimal in nature. Published information may also be used, where appropriate.				
Indicators	Evidence of plant regeneration from 20m x 20m monitoring plots or a walk over of the ecological rehabilitation area				
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that demonstrate long term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM and walkover inspections undertaken to identify presence of recruitment.				
<b>ROB0014635</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	The vegetation composition of the rehabilitation offset area is recognisable as the target vegetation communities (Central Hunter Box-Ironbark Woodland) as described by the NSW Scientific Final Committee Determination.		
<b>ROCC0002415</b>					
Rehabilitation completion criteria	A minimum of 10 of the 38 characteristic flora species contained in the Central Hunter Grey Box – Ironbark Woodland Final Determination (NSW Scientific Committee 2010) is present in a standard 20 m x 20 m floristic sampling plot.				
Indicators	The number of characteristic species for Central Hunter Box-Ironbark Woodland present are characteristic of the NSW Scientific Committee Final Determination.				



Validation method	Before and after photos, statistically robust rehabilitation monitoring reports, independent ecological reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years All native vascular plant species are recorded to species level from fixed monitoring plots. Monitoring undertaken in accordance with BAM.				
<b>ROB0014636</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	The vegetation composition of the rehabilitation offset area is recognisable as the target vegetation communities (Narrow-leaved Ironbark - Spotted Gum Woodland) as described by the NSW Scientific Final Committee Determination.		
<b>ROCC0002416</b>					
Rehabilitation completion criteria	A minimum of 11 of the 44 characteristic flora species contained in the Central Hunter Ironbark – Spotted Gum – Grey Box Forest Final Determination (NSW Scientific Committee 2010b) is present in a standard 20 m x 20 m floristic sampling plot.				
Indicators	The number of characteristic species for Narrow-leaved Ironbark - Spotted Gum Forest present is assessed against the NSW Scientific Committee Final Determination.				
Validation method	Before and after photos, statistically robust rehabilitation monitoring reports, independent ecological reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years All native vascular plant species are recorded to species level from fixed monitoring plots. Monitoring undertaken in accordance with BAM.				
<b>ROB0014639</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	The vegetation structure of the rehabilitation offset area is recognisable as, or is trending towards (based on ongoing monitoring data) the target vegetation communities (Central Hunter Box-Ironbark Woodland) as described by the NSW Scientific Final Committee Determination.		
<b>ROCC0002419</b>					
Rehabilitation completion criteria	Within a standard 20 m x 20 m floristic sampling plot tree (TG) foliage cover is between 10% and 70% AND grass (GG) and forb (FG) growth forms are present.				
Indicators	The growth forms present are consistent with, or are trending toward, those of the target vegetation types.				
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required). Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.				
<b>ROB0014640</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Native revegetation	Rehabilitation Objective	The vegetation structure of the rehabilitation offset area is recognisable as, or is trending towards (based on ongoing monitoring data) the target vegetation communities (Narrow-leaved Ironbark - Spotted Gum Woodland) as described by the NSW Scientific Final Committee Determination.		
<b>ROCC0002420</b>					
Rehabilitation completion	Within a standard 20 m x 20 m floristic sampling plot tree (TG) foliage cover is between 10% and 70% AND grass (GG) and forb (FG) growth forms are present.				



criteria	
Indicators	The growth forms present are consistent with, or are trending toward, those of the target vegetation types.
Validation method	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required). Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years Monitoring undertaken in accordance with BAM.

## ROB0014541

Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Removal of infrastructure	Rehabilitation Objective	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.		

## ROCC0002217

Rehabilitation completion criteria	All utility infrastructure removed.
Indicators	Removal of all services (power, water, communications) that have been connected on the site as part of the operation.
Validation method	Statement provided, independent field verification

## ROCC0002178

Rehabilitation completion criteria	Cores removed.
Indicators	All drill cores have been removed from site and either taken to authorised storage or disposal location.
Validation method	Statement provided, independent field verification, disposal/transfer receipts

## ROCC0002165

Rehabilitation completion criteria	Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.
Indicators	Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.

## ROCC0002191

Rehabilitation completion criteria	Infrastructure removed.
Indicators	All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.
Validation method	As-constructed final landform plan, photos, independent field verification, etc.

## ROCC0002230

Rehabilitation completion criteria	Infrastructure removed.
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Indicators	Removal of all water management infrastructure (including pumps, pipes and power).				
Validation method	Statement provided, independent field verification and before/after photos.				
<b>ROCC0002204</b>					
Rehabilitation completion criteria	Permits and approval documents issued; archival reports (where required) complete and submitted.				
Indicators	Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).				
Validation method	Copy of any relevant approval documentation.				
<b>ROCC0002243</b>					
Rehabilitation completion criteria	Sealing complete.				
Indicators	Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.				
Validation method	Engineering report/statement, survey records, photos etc.				
<b>ROCC0002256</b>					
Rehabilitation completion criteria	Sealing completed. OR Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.				
Indicators	Surveying and sealing of all former underground mine entries. OR Where sealing records are not available, risk assessment completed to define risk to final land use.				
Validation method	Engineering report/statement, risk assessment report, survey records, photos etc.				
<b>ROB0014554</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Any infrastructure that is to remain as part of the final land use is safe.		
<b>ROCC0002308</b>					
Rehabilitation completion criteria	Any required Repairs or Upgrades complete.				
Indicators	Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.				
Validation method	Copy of any relevant plans, photos etc.				
<b>ROCC0002282</b>					
Rehabilitation completion criteria	Hazards isolated and secured.				
Indicators	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.				

Validation method	Statement provided.				
<b>ROCC0002269</b>					
Rehabilitation completion criteria	The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.				
Indicators	If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use. Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.				
Validation method	Surveyed and marked on the as-constructed final landform plan. Copy of notification to or correspondence with relevant authority				
<b>ROCC0002295</b>					
Rehabilitation completion criteria	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.				
Indicators	The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.				
Validation method	Engineering report/statement, photos etc.				
<b>ROB0014567</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979).		
<b>ROCC0002321</b>					
Rehabilitation completion criteria	Permits and approval documents issued				
Indicators	Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use				
Validation method	Copy of any relevant approvals or evidence if approvals not required e.g. fencing				
<b>ROB0014601</b>					
Final Land Use Domain	Rehabilitation Biodiversity Offset Area	Mining Domain	Overburden Emplacement Area	Spatial Reference	D4
Rehabilitation Objective Category	Water quality	Rehabilitation Objective	Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining environmental assessments.		
<b>ROCC0002381</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				

## ROB0014529

Final Land Use Domain	Water Storage (Excluding Final Void)	Mining Domain	Water Management Area	Spatial Reference	G3
Rehabilitation Objective Category	Bushfire	Rehabilitation Objective	The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.		

## ROCC0002153

Rehabilitation completion criteria	Bushfire controls implemented.				
Indicators	Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.				
Validation method	Independent verification report.				

## ROB0014615

Final Land Use Domain	Water Storage (Excluding Final Void)	Mining Domain	Water Management Area	Spatial Reference	G3
Rehabilitation Objective Category	Groundwater	Rehabilitation Objective	Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.		

## ROCC0002395

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				

## ROB0014581

Final Land Use Domain	Water Storage (Excluding Final Void)	Mining Domain	Water Management Area	Spatial Reference	G3
Rehabilitation Objective Category	Land and water contamination	Rehabilitation Objective	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.		

## ROCC0002335

Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				

## ROCC0002361

Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
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Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002348</b>					
Rehabilitation completion criteria	There are no visible signs of contamination				
Indicators	Waste material and/or visible contamination areas on site				
Validation method	Statement provided and before/after photos				
<b>ROB0014516</b>					
Final Land Use Domain	Water Storage (Excluding Final Void)	Mining Domain	Water Management Area	Spatial Reference	G3
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		
<b>ROCC0002140</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.				
<b>ROCC0002127</b>					
Rehabilitation completion criteria	<p>Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works.</p> <p>Visual - no signs of land instability such as mass movement.</p> <p>Visual - no areas of active gully erosion.</p> <p>Visual - no evidence of tunnel erosion.</p> <p>Visual - no evidence of active scour likely to compromise surface water management structure.</p> <p>Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.</p>				
Indicators	<p>Visual - indicators of erosion and land instability.</p> <p>Visual - indicators that surface water management structure are functioning as designed.</p> <p>Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.</p>				
Validation method	<p>Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform.</p> <p>Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).</p>				
<b>ROB0014631</b>					
Final Land Use Domain	Water Storage (Excluding Final Void)	Mining Domain	Water Management Area	Spatial Reference	G3
Rehabilitation Objective	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained /		

Category	encapsulated so it does not pose any hazards or constraints for intended land use.				
<b>ROCC0002411</b>					
Rehabilitation completion criteria	Visual – verification that capping, type and placement present acceptable residual risk to final land use Visual – no signs of impacts on final land use due to residual waste materials indicated by vegetation health Survey - no significant areas of high temperature that impacts vegetation health Survey - coarse rejects and hot material is a minimum of 5m below final landform surface (where records are available)				
Indicators	Visual – capping material placement, type across emplacement Visual – indication of residual waste impacting on final land use – vegetation health Survey - targeted thermal scanning of surface for indications of spontaneous combustion based on visual indicators Survey - survey plans show depth of coarse rejects, hot material and other wastes (where records are available)				
Validation method	Photos, rehabilitation monitoring reports, as constructed surveys, thermal survey outputs, survey records and plans, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.				
<b>ROB0014542</b>					
Final Land Use Domain	Water Storage (Excluding Final Void)	Mining Domain	Water Management Area	Spatial Reference	G3
Rehabilitation Objective Category	Removal of infrastructure	Rehabilitation Objective	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.		
<b>ROCC0002218</b>					
Rehabilitation completion criteria	All utility infrastructure removed.				
Indicators	Removal of all services (power, water, communications) that have been connected on the site as part of the operation.				
Validation method	Statement provided, independent field verification				
<b>ROCC0002179</b>					
Rehabilitation completion criteria	Cores removed.				
Indicators	All drill cores have been removed from site and either taken to authorised storage or disposal location.				
Validation method	Statement provided, independent field verification, disposal/transfer receipts				
<b>ROCC0002166</b>					
Rehabilitation completion criteria	Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.				
Indicators	Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.				
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.				
<b>ROCC0002192</b>					
Rehabilitation completion criteria	Infrastructure removed.				

Indicators	All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.				
Validation method	As-constructed final landform plan, photos, independent field verification, etc.				
<b>ROCC0002231</b>					
Rehabilitation completion criteria	Infrastructure removed.				
Indicators	Removal of all water management infrastructure (including pumps, pipes and power).				
Validation method	Statement provided, independent field verification and before/after photos.				
<b>ROCC0002205</b>					
Rehabilitation completion criteria	Permits and approval documents issued; archival reports (where required) complete and submitted.				
Indicators	Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).				
Validation method	Copy of any relevant approval documentation.				
<b>ROCC0002244</b>					
Rehabilitation completion criteria	Sealing complete.				
Indicators	Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.				
Validation method	Engineering report/statement, survey records, photos etc.				
<b>ROCC0002257</b>					
Rehabilitation completion criteria	Sealing completed. OR Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.				
Indicators	Surveying and sealing of all former underground mine entries. OR Where sealing records are not available, risk assessment completed to define risk to final land use.				
Validation method	Engineering report/statement, risk assessment report, survey records, photos etc.				
<b>ROB0014555</b>					
Final Land Use Domain	Water Storage (Excluding Final Void)	Mining Domain	Water Management Area	Spatial Reference	G3
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Any infrastructure that is to remain as part of the final land use is safe.		
<b>ROCC0002309</b>					
Rehabilitation completion criteria	Any required Repairs or Upgrades complete.				



Indicators	Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.				
Validation method	Copy of any relevant plans, photos etc.				
<b>ROCC0002283</b>					
Rehabilitation completion criteria	Hazards isolated and secured.				
Indicators	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.				
Validation method	Statement provided.				
<b>ROCC0002270</b>					
Rehabilitation completion criteria	The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.				
Indicators	If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use. Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.				
Validation method	Surveyed and marked on the as-constructed final landform plan. Copy of notification to or correspondence with relevant authority				
<b>ROCC0002296</b>					
Rehabilitation completion criteria	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.				
Indicators	The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.				
Validation method	Engineering report/statement, photos etc.				
<b>ROB0014568</b>					
Final Land Use Domain	Water Storage (Excluding Final Void)	Mining Domain	Water Management Area	Spatial Reference	G3
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979).		
<b>ROCC0002322</b>					
Rehabilitation completion criteria	Permits and approval documents issued				
Indicators	Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use				
Validation method	Copy of any relevant approvals or evidence if approvals not required e.g. fencing				
<b>ROB0014617</b>					
Final Land Use Domain	Water Storage (Excluding Final Void)	Mining Domain	Water Management Area	Spatial Reference	G3
Rehabilitation Objective Category	Water approvals	Rehabilitation Objective	Structures that take water are appropriately licensed.		

## ROCC0002397

Rehabilitation completion criteria

Adequate water allocations and associated licenses are held for all applicable structures.

Indicators

Hydrological and hydro-geological assessments are undertaken to determine water take at completion from the relevant water sources to confirm that sufficient allocations are held.

Validation method

Copy of any relevant approvals or evidence if approvals not required. Confirmation from relevant Government Agency (e.g. NRAR) that licences are held. Independent water harvesting compliance assessment.

## ROB0014602

Final Land Use Domain

Water Storage (Excluding Final Void)

Mining Domain

Water Management Area

Spatial Reference

G3

Rehabilitation Objective Category

Water quality

Rehabilitation Objective

Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining environmental assessments.

## ROCC0002382

Rehabilitation completion criteria

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Indicators

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Validation method

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

## ROB0014530

Final Land Use Domain

Final Void

Mining Domain

Active Mining Area (Open cut void)

Spatial Reference

J5

Rehabilitation Objective Category

Bushfire

Rehabilitation Objective

The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation.

## ROCC0002154

Rehabilitation completion criteria

Bushfire controls implemented.

Indicators

Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service.

Validation method

Independent verification report.

## ROB0014616

Final Land Use Domain

Final Void

Mining Domain

Active Mining Area (Open cut void)

Spatial Reference

J5

Rehabilitation Objective Category

Groundwater

Rehabilitation Objective

Impacts to groundwater regime and groundwater quality are within range as predicted in pre-mining environmental assessment.

## ROCC0002396

Rehabilitation completion criteria

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Indicators

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
<b>ROB0014582</b>					
Final Land Use Domain	Final Void	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	J5
Rehabilitation Objective Category	Land and water contamination	Rehabilitation Objective	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.		
<b>ROCC0002362</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002336</b>					
Rehabilitation completion criteria	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999).				
Indicators	Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type, where required.				
Validation method	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required)				
<b>ROCC0002349</b>					
Rehabilitation completion criteria	There are no visible signs of contamination				
Indicators	Waste material and/or visible contamination areas on site				
Validation method	Statement provided and before/after photos				
<b>ROB0014619</b>					
Final Land Use Domain	Final Void	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	J5
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	Final voids size, depth and catchments are minimised to the greatest extent practicable.		
<b>ROCC0002399</b>					
Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.				

## ROB0014517

Final Land Use Domain	Final Void	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	J5
Rehabilitation Objective Category	Landform stability	Rehabilitation Objective	The final landform is stable and does not present a risk of environmental harm downstream/ downslope of the site or a safety risk to the public/ stock/ native fauna.		

### ROCC0002141

Rehabilitation completion criteria	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.
Indicators	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.
Validation method	Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved for high risk landforms.

### ROCC0002128

Rehabilitation completion criteria	<p>Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works.</p> <p>Visual – no signs of land instability such as mass movement.</p> <p>Visual - no areas of active gully erosion.</p> <p>Visual - no evidence of tunnel erosion.</p> <p>Visual – no evidence of active scour likely to compromise surface water management structure.</p> <p>Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.</p>
Indicators	<p>Visual - indicators of erosion and land instability.</p> <p>Visual - indicators that surface water management structure are functioning as designed.</p> <p>Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan.</p> <p>Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.</p>
Validation method	<p>Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform.</p> <p>Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).</p>

## ROB0014632

Final Land Use Domain	Final Void	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	J5
Rehabilitation Objective Category	Management of waste and process materials	Rehabilitation Objective	Residual waste materials stored on site (e.g. tailings, coarse rejects and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended land use.		

### ROCC0002412

Rehabilitation completion criteria	<p>Visual – verification that capping, type and placement present acceptable residual risk to final land use</p> <p>Visual – no signs of impacts on final land use due to residual wate materials indicated by vegetation health</p> <p>Survey - no significant areas of high temperature that impacts vegetation health</p> <p>Survey - coarse rejects and hot material is a minimum of 5m below final landform surface (where records are available)</p>
Indicators	<p>Visual – capping material placement, type across emplacement</p> <p>Visual – indication of residual waste impacting on final land use – vegetation health</p> <p>Survey - targeted thermal scanning of surface for indications of spontaneous combustion based on visual indicators</p> <p>Survey - survey plans show depth of coarse rejects, hot material and other wastes (where records are available)</p>

Validation method	Photos, rehabilitation monitoring reports, as constructed surveys, thermal survey outputs, survey records and plans, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.				
<b>ROB0014543</b>					
Final Land Use Domain	Final Void	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	J5
Rehabilitation Objective Category	Removal of infrastructure	Rehabilitation Objective	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.		
<b>ROCC0002219</b>					
Rehabilitation completion criteria	All utility infrastructure removed.				
Indicators	Removal of all services (power, water, communications) that have been connected on the site as part of the operation.				
Validation method	Statement provided, independent field verification				
<b>ROCC0002180</b>					
Rehabilitation completion criteria	Cores removed.				
Indicators	All drill cores have been removed from site and either taken to authorised storage or disposal location.				
Validation method	Statement provided, independent field verification, disposal/transfer receipts				
<b>ROCC0002167</b>					
Rehabilitation completion criteria	Footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use.				
Indicators	Removal of all footings or encapsulation of footings compatible with final landform/land use objectives.				
Validation method	Statement provided, independent field verification. Surveyed and marked on the as-constructed final landform plan.				
<b>ROCC0002232</b>					
Rehabilitation completion criteria	Infrastructure removed.				
Indicators	Removal of all water management infrastructure (including pumps, pipes and power).				
Validation method	Statement provided, independent field verification and before/after photos.				
<b>ROCC0002193</b>					
Rehabilitation completion criteria	Infrastructure removed.				
Indicators	All plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples are disposed of in accordance with Waste Management Regulations.				
Validation method	As-constructed final landform plan, photos, independent field verification, etc.				
<b>ROCC0002206</b>					

Rehabilitation completion criteria	Permits and approval documents issued; archival reports (where required) complete and submitted.				
Indicators	Heritage obligations (e.g. development consent under the Environmental Planning and Assessment Act 1979, approvals under the Heritage Act 1977, etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).				
Validation method	Copy of any relevant approval documentation.				
<b>ROCC0002245</b>					
Rehabilitation completion criteria	Sealing complete.				
Indicators	Surveying and sealing of all drill holes and boreholes (where locatable) in accordance with departmental guidelines and relevant standards.				
Validation method	Engineering report/statement, survey records, photos etc.				
<b>ROCC0002258</b>					
Rehabilitation completion criteria	Sealing completed. OR Where sealing records are unavailable, risk assessment shows acceptable residual risk remains to final land use.				
Indicators	Surveying and sealing of all former underground mine entries. OR Where sealing records are not available, risk assessment completed to define risk to final land use.				
Validation method	Engineering report/statement, risk assessment report, survey records, photos etc.				
<b>ROB0014556</b>					
Final Land Use Domain	Final Void	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	J5
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Any infrastructure that is to remain as part of the final land use is safe.		
<b>ROCC0002310</b>					
Rehabilitation completion criteria	Any required Repairs or Upgrades complete.				
Indicators	Water management infrastructure (dams, drains, embankments, etc.) and access tracks are suitable in size and condition for the post mining land use and practically minimised.				
Validation method	Copy of any relevant plans, photos etc.				
<b>ROCC0002284</b>					
Rehabilitation completion criteria	Hazards isolated and secured.				
Indicators	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.				
Validation method	Statement provided.				
<b>ROCC0002271</b>					
Rehabilitation completion	The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.				

criteria					
Indicators	If any underground pipelines or other infrastructure (e.g. building footings) are to remain in situ, they do not pose a hazard for the intended final land use. Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – grazing they are at a depth >0.5m and don't constrain the final land use.				
Validation method	Surveyed and marked on the as-constructed final landform plan. Copy of notification to or correspondence with relevant authority				
<b>ROCC0002297</b>					
Rehabilitation completion criteria	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use.				
Indicators	The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.				
Validation method	Engineering report/statement, photos etc.				
<b>ROB0014569</b>					
Final Land Use Domain	Final Void	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	J5
Rehabilitation Objective Category	Retention of infrastructure	Rehabilitation Objective	Infrastructure to remain as part of the final land use has necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979).		
<b>ROCC0002323</b>					
Rehabilitation completion criteria	Permits and approval documents issued				
Indicators	Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use				
Validation method	Copy of any relevant approvals or evidence if approvals not required e.g. fencing				
<b>ROB0014618</b>					
Final Land Use Domain	Final Void	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	J5
Rehabilitation Objective Category	Water approvals	Rehabilitation Objective	Structures that take water are appropriately licensed.		
<b>ROCC0002398</b>					
Rehabilitation completion criteria	Adequate water allocations and associated licenses are held for all applicable structures.				
Indicators	Hydrological and hydro-geological assessments are undertaken to determine water take at completion from the relevant water sources to confirm that sufficient allocations are held.				
Validation method	Copy of any relevant approvals or evidence if approvals not required. Confirmation from relevant Government Agency (e.g. NRAR) that licences are held. Independent water harvesting compliance assessment.				
<b>ROB0014603</b>					
Final Land Use Domain	Final Void	Mining Domain	Active Mining Area (Open cut void)	Spatial Reference	J5
Rehabilitation Objective Category	Water quality	Rehabilitation Objective	Runoff water quality is similar to, or better than, the pre-disturbance runoff water quality or as predicted in pre-mining		



environmental assessments.

### ROCC0002383

Rehabilitation completion criteria

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Indicators

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.

Validation method

Further refinement of this rehabilitation completion criteria is required before an amended rehabilitation completion criteria statement can be approved.