Annual Environmental Performance Audit Report 2023

McArthur River Mine, Independent Monitor

Department of Industry, Tourism and Trade

01 December 2023





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Executive Summary

This Annual Environmental Performance Audit Report (AEPAR) presents findings on the environmental regulatory compliance at the McArthur River Mine (Mine), considering the activities of McArthur River Mining Pty Ltd (MRM), the Operator, and the Northern Territory (NT) Department of Industry, Tourism and Trade (DITT), during the audit period 01 May 2022 to 30 April 2023.

The primary objective of this AEPAR is to assess and report, to the Minister for Mining and Industry, the Operator's and DITT's level of compliance in relation to fulfilling and managing the Mine's environmental obligations. It is also to provide transparency to the community in relation to these independent findings. This AEPAR also identifies areas for improvement in environmental compliance.

This audit has been conducted by the Independent Monitor (Advisian Pty Ltd), the role of which is to assess compliance against regulatory conditions, recommendations and commitments. This AEPAR reviews the environmental activities undertaken by both the Operator and DITT to meet regulatory and non-regulatory obligations. In addition, the Independent Monitor conducted targeted in-depth reviews of the Mine's air quality monitoring program, surface water management, Independent Certifying Engineer (ICE) activities and the Adaptive Management Plan (AMP). An important purpose of the Independent Monitor's role is to report any urgent environmental issues requiring investigation.

The 2023 AEPAR found both the Operator and DITT had a high level of compliance with regulatory approval requirements during the audit period. Based on the audit findings and review by the relevant experts, the McArthur River and its tributaries were considered to be in good health. Based on the regulatory requirements and the Operator's implementation of controls, the audit did not identify any significant environmental issues or risks of concern that would require immediate attention or significant changes to the current environmental management and monitoring regime.

Findings - General

This AEPAR examined 908 conditions, requirements and individual elements contained in the Authorisation, Waste Discharge Licence (WDL) and NT Environment Protection Authority (NT EPA) recommendations. This process identified 610 active requirements, along with the balance of requirements that will be triggered in the future or are currently not relevant. Of the active requirements, 559 were assessed as compliant, with 23 part-compliances identified for the Operator and 28 part-compliances identified for DITT. A part-compliance was identified where some aspects of the requirement were not fully satisfied.

Continued focus on the effective management and monitoring of key environmental risk areas by the Operator and DITT has resulted in improved performance during the audit period. This has involved ongoing implementation of management actions to avoid or reduce environmental risk.

The AEPAR describes the Independent Monitor's findings and relevant opportunities that may support continuous improvement. Opportunities for improvement are identified to enhance compliance, noting these opportunities are not mandatory requirements. Successes achieved by the Operator and DITT that go beyond regulatory compliance and have contributed to improved environmental outcomes are also noted.



Findings - Operator Compliance Performance

Authorisation

The Independent Monitor reviewed the Operator's compliance across 437 Authorisation conditions. The Operator attained a very high level of compliance (98%) with the Authorisation conditions across its key mining operational activities. The Operator has improved the level of overall compliance, with a 1% higher score than attained in the 2022 AEPAR. Improvement was achieved despite challenges for maintenance of very high levels of compliance with complex approvals, including the requirement to satisfy 30% more conditions than in 2022. The findings for 2023 indicate the Operator's progress in environmental performance.

Key findings in relation to the assessment of Environmental Aspects and Operator Domains are outlined below, with further detail provided in the main report. The Environmental Aspects and Operator Domains enable consideration of Authorisation condition compliance findings within relevant groupings to facilitate deeper interpretation.

Environmental Aspects

Environmental Aspects are defined as environmental or community receptors that are protected by relevant conditions or potentially impacted if the conditions are not met. The compliance scores for conditions grouped by Environmental Aspect are summarised in ES-1.



Figure ES-1: Operator Compliance Scores by Environmental Aspect

The Air Quality, Marine Waters, Vegetation and Rehabilitation and Community Environmental Aspects attained full compliance scores of 100%.

The *Aquatic Fauna* Environmental Aspect attained a compliance score of 99% from 36 active conditions and the *Groundwater* Environmental Aspect scored 98% from 30 active conditions.

The *Surface Water* Environmental Aspect achieved a compliance score of 97% based on 104 active conditions. There were 11 conditions with part-compliances including:



- Actions resulting from inspections listed in the Dams and Sumps Register did not appear to have been recorded in a formal register
- Regular weekly inspections were not conducted for the Southern Perimeter Runoff Dam (SPROD) and Eastern Perimeter Runoff Dam (EPROD) in accordance with Australian National Committee on Large Dams (ANCOLD)
- Formal inspections were not documented for the North Overburden Emplacement Facility (NOEF) North East Alpha Sump and NOEF Central East Bravo Sump following their commissioning.

The *Waste* Environmental Aspect includes the management of waste rock in the overburden emplacement facilities, an area of high potential environmental risk if management controls are not adequately implemented. Against the 66 active waste-related conditions, the Operator had a compliance score of 97% with eight part-compliances. This was an improvement in score relative to the 2022 AEPAR (95%). The part-compliances included:

• Evidence not provided for the NOEF (particularly the operation phase) to demonstrate that the ICE oversees and certifies the works to meet design specifications, approves recommencement of works at hold points and prepares weekly / monthly progress reports.

'As constructed' reports verify that the Mine's facilities (e.g., dams, NOEF and TSF) have been built in accordance with the relevant authorisation conditions and the approved design and specifications. The NOEF 'as constructed' reports have not been available for a combination of reasons. Clarification with respect to which structures (facilities) and what interim stages of construction require 'as constructed' reports, and what defines construction 'completion', will assist the Operator to meet requirements and support the progressive preparation of 'as constructed' reports in a timely manner.

The *Monitoring and Reporting* Environmental Aspect achieved a compliance score of 97% from 155 active conditions. There were 15 conditions with part-compliances including:

- As built construction reports were not provided to DITT for some of the Tailings Storage Facility (TSF) Cell 1 and Cell 2 raises
- Independent Tailings Review Board (ITRB) was not involved for endorsement of TSF design changes (buttresses), TSF Operations, Maintenance and Surveillance Manual (OMS Manual) and construction documentation.

Operator Domains

Operator Domains are defined as areas of the mineral lease that are characterised by an operational activity. Operator Domains have been utilised by the Independent Monitor to examine performance of different areas of the Mine site. Compliance scores for conditions grouped by Operator Domains are summarised in Figure ES-2.



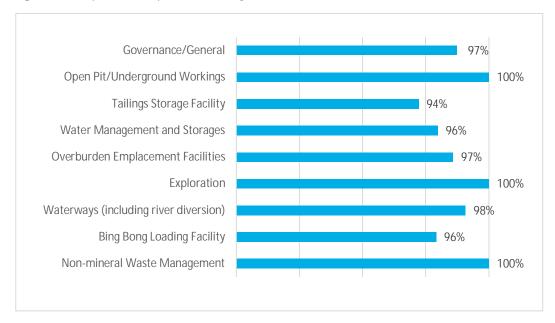


Figure ES-2: Operator Compliance Scores by Domains

The *Open Pit/Underground Workings, Exploration* and *Non-mineral Waste Management* Operator Domains were assessed as achieving full compliance scores of 100%.

Two Operator Domains (*Water Management and Storages* and *Waterways*) achieved high compliance scores of 95% and 98%, with 37 and 68 active conditions respectively. With reference to the 2022 AEPAR, these compliance scores represented a 4% decrease from the 2022 AEPAR score (99%) and a 1% increase from the 2022 AEPAR score (97%) respectively.

The *Tailings Storage Facility* and *Overburden Emplacement Facilities* Operator Domains have amongst the highest levels of potential environmental risk:

- The *Tailings Storage Facility* Operator Domain had 36 active conditions, and there were seven part-compliances:
 - Three part-compliances were related to the ITRB, another three part-compliances were related to the ICE, and one part-compliance was related to the Water Management Plan (WMP)
 - The *Tailings Storage Facility* Operator Domain score of 94% is a 1% improvement on the equivalent 2022 AEPAR score (93%).
- The *Overburden Emplacement Facilities* Operator Domain had 53 active conditions, and there were six part-compliances:
 - One part-compliance was related to the Reconciliation of Commitments and Actions Register, one part-compliance was related to the WMP, and four part-compliances were related to the ICE
 - The *Overburden Emplacement Facilities* Operator Domain score of 97% is a 1% improvement on the equivalent 2022 AEPAR score (96%).

The *Governance/General* Operator Domain relates to activity undertaken to achieve compliance and environmental performance outcomes that is not specific to an area of the mineral lease. There were 183 conditions relevant to the *Governance/General* Operator Domain, 118 of which were active. The



Operator was assessed as achieving a compliance score of 97%, the same compliance score as was attained in the 2022 AEPAR.

The *Bing Bong Loading Facility* Operator Domain achieved a compliance score of 96%, based on six active conditions, with one condition assessed as a part-compliance. This compliance score represents an improvement of 1% on the 2022 AEPAR score (95%).

Waste Discharge Licence

The audit assessed the Operator as having a very high level of overall compliance with the WDL conditions with the compliance score of 99% representing an increase of 1% relative to the 2022 AEPAR score (98%). All six areas of the WDL achieved very high to full compliance namely: *general* (100%), operational (100%), discharges (100%), monitoring (98%), recording and reporting (98%), and performance improvement (100%).

There are no recorded opportunities for improvement (OFI) for the Operator relating to WDL compliance in the 2023 AEPAR. The number of WDL-related OFIs has reduced from eight in the 2021 AEPAR, to four in the 2022 AEPAR and zero in the 2023 AEPAR. All previous OFIs have been addressed including through improvements to the Water Monitoring Program and updates to some WDL conditions.

Voluntary Commitments

Voluntary environmental commitments made by the Operator are included in the Mining Management Plan (MMP), Operational Performance Report (OPR), and the Environmental Monitoring report (EMR)¹. These commitments are not regulatory requirements but are voluntary actions and opportunities identified by the Operator to further improve environmental outcomes. The implementation status of each commitment is set out by the Operator in an annual register within the EMR.

The EMR contains 230 commitments, of which 158 commitments are identified as ongoing, eight commitments are identified as complete and 64 commitments are identified as future requirements or not currently relevant. Six of the 158 ongoing commitments are identified in 2023 AEPAR as being incomplete. Key opportunities for improvement for tracking and reporting on implementation of commitments include:

- Consolidation of the MMP's commitments (refer to MRM EMR 2020-2021, Appendix L and Appendix M) into a single commitment register for reporting against future EMRs, and rationalisation of these commitments to avoid duplication
- Provision of clear indication in the commitments register where a commitment is closed out with no further action proposed.

Reporting against commitments in the EMR 2023 was consistent with the previous audit period. It is notable that work activity related to several commitments has not occurred in accordance with timeframes reported in respective EMRs.

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¹ The Operational Performance Report and Environmental Monitoring Report prepared by the Operator are understood to meet the requirements of an Environmental Mining Report under Section 37(4) of the MMA.



Operator Successes

The audit and review process identified noteworthy successes achieved by the Operator during the audit period which have contributed to continuous environmental improvement including:

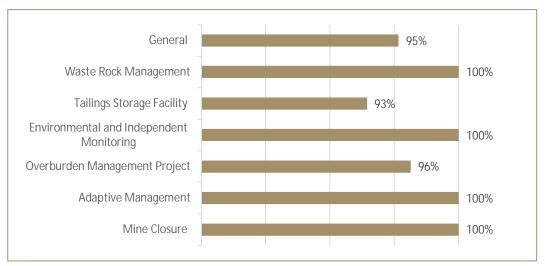
- 1. NOEF liner systems large scale liner installation preventing water and air ingress
- 2. Barney Creek sediment removal program targeted removal of potentially contaminated sediment
- 3. Dust suppression binder trials initiative to reduce dust emissions along haul roads
- 4. Rehabilitation trials NOEF revegetation work
- 5. Onsite seed collection 80% of native seed used to propagate the 120,000 tubestock seedlings for planting in 2022 was collected on-site
- 6. McArthur River Diversion Channel vegetation rehabilitation re-establishment of native vegetation
- 7. McArthur River Diversion Channel Large Woody Debris tree trunks placed in waterway to create habitat for aquatic animals
- 8. Water Quality Monitoring Indigenous participation in monitoring program by local sea rangers
- 9. Glyde River and Emu Creek permanent water quality gauging stations cultural heritage approval received for installation of permanent river monitoring equipment
- 10. EMR synthesis of all monitoring program data assessment of multiple monitoring program information to assess potential environmental impacts.

Findings - DITT Compliance Performance

Authorisation

DITT achieved a high level of overall compliance (97%) against the 149 active Authorisation conditions. DITT achieved full compliance (100%) for four out of seven Authorisation sections, namely *Waste Rock Management, Environment and Independent Monitoring, Adaptive Management* and *Mine Closure.* The review found DITT to have a strong focus on key environmental risks with a correspondingly high number of conditions related to the NOEF and the TSF. The compliance scores for conditions grouped by Authorisation section are summarised in Figure ES-3.







The *General* Section received a compliance score of 95%. One part-compliance was identified, with this related to DITT not ensuring the Operator submitted 'as built' construction reports for the TSF.

The *Tailings Storage Facility* Section attained a compliance score of 93%. One part-compliance was identified, with this related to DITT not monitoring details of the members of the ITRB panel and the panel's meeting frequency.

The Overburden Management Project Section achieved a 95% compliance score against the 88 active conditions. Five part-compliances were identified, with these relating to submitted documents not being reviewed or approved in a timely manner as the Independent Panels (NOEF and TSF) were not established.

It is notable there are no regulatory timeframes for the establishment of the Independent Panels or for provision of response for some review and approval tasks. This has implications for Authorisation requirements that are reliant upon commencement and operation of the Independent Panels.

The availability of 'as constructed' reports to verify construction of facilities is in accordance with conditions and approved design and specifications has been limited for a combination of reasons. Obtainment and review of progressive 'as constructed' reports in a timely manner would be facilitated by clarification from DITT with respect to:

- Structures requiring submission of 'as constructed' reports
- Distinct interim stages of construction where 'as constructed' reports are required
- Definition of construction completion.

NT EPA Recommendations

DITT's responsibilities include ensuring the Authorisation conditions are not contrary to the NT EPA recommendations and the intent of the NT EPA recommendations have been addressed. The audit found DITT had effectively incorporated the NT EPA recommendations into the Authorisation conditions. A NT EPA compliance score of 98% was achieved, that maintained the 2022 score.

DITT has achieved a significant reduction in the number of NT EPA Recommendation OFIs, from nine in the 2022 AEPAR to one in the 2023 AEPAR. Most OFIs have been addressed, including through incorporation as tasks in the approved terms of reference for the TSF or NOEF Independent Panels.

Regulatory Approach

DITT continued to work on targeted improvements to Authorisation conditions. The intent of conditions has been clarified through revised wording in the Authorisation issued 17 May 2023. Compliance tracking was simplified through addition of an acknowledgement of completion for certain conditions and enhancement of an existing condition specifying preparation of an annual list of 'as constructed' reports required.

DITT's development of the terms of reference for Independent Panels for the NOEF and TSF has addressed residual NT EPA recommendations which are not explicitly incorporated in Authorisation conditions. This will assist in addressing and tracking of most remaining NT EPA recommendations.



No enforcement notices were issued by DITT to the Operator during the audit period. This indicates there were no serious environmental incidents or breaches of Authorisation conditions identified or reported that triggered DITT regulatory enforcement action.

The DITT Environmental Monitoring Unit (EMU) field program obtains independent environmental data to validate whether the Operators' monitoring data is representative and reliable. The EMU conducted a groundwater check monitoring program in December 2022.

The Community Reference Group (CRG) was established by DITT during the audit period with the primary purpose to communicate the McArthur River Mine's performance to the local and broader NT community. A call for expressions of interest to become a member of the CRG closed on 31 October 2022. The Independent Chairperson was appointed by the Minister for Mining and Industry in March 2023. The Independent Chairperson subsequently nominated individuals in May 2023, with members appointed to the CRG by the Minister in June 2023 (outside the audit period).

None of the Independent Panels have been established. The terms of reference for the NOEF and TSF were approved on 12 December 2022 and have been published on the DITT website. It is anticipated the Independent Panels for the NOEF and TSF will commence in 2024 and the Closure Panel will be established in the future.

Findings – River Health

The monitoring and management actions conducted by the Operator included a comprehensive range of programs to detect and manage potential impacts to protect the aquatic ecosystems and beneficial uses of the McArthur River.

A site visit was conducted by the Independent Monitor's Aquatic Ecologist in May 2022 to assess the effectiveness of the monitoring program through interviewing and observing aquatic ecologists conducting the annual post-wet season macroinvertebrate monitoring. A general assessment of river system health, as it relates to fish health and general aquatic ecology, was conducted based on the information provided by the Operator. Overall, the McArthur River and its tributaries were considered to be in good health.

Sediments samples taken on site from tributaries of the McArthur River (Barney Creek and Surprise Creek) returned limited elevated levels of metals, comparable with previous years. A range of management measures are implemented in this area by the Operator, including public exclusion zones and ongoing monitoring and management programs.

Analysis of metals in aquatic fauna during the audit period showed there were no exceedances of Maximum Permitted Concentrations² in tissue samples. Reductions in tissue metal concentrations since 2018 appear to be attributable to the management actions taken to remove potentially contaminated sediments from the Barney Creek channel. Results of sediment analysis show reductions in lead, and zinc concentrations, compared with those recorded in 2018, with other metals below the relevant quideline values.

The 2022-2023 monitoring findings demonstrated that fish caught throughout the McArthur River catchment were considered safe to consume, including barramundi and sooty grunter.

² Australia New Zealand Food Standards Code, Standard 1.4.1, Schedule 19



Consistently high levels of metals have been recorded in mussels in most river catchments throughout the NT region. It is considered unlikely that enough mussels could be collected and consumed to cause a detrimental health effect. Regardless, due to the high levels of naturally-occurring metals found in the mussels in the region, it is suggested that intake should be limited, consistent with findings from previous reports.

The McArthur River Diversion Channel was constructed in 2009 with significant and ongoing efforts made to reinstate habitat conditions typical of natural river channels, primarily by establishment of riparian vegetation and the introduction of instream woody debris. Monitoring data collected to date suggests these actions have improved and are likely to continue to improve the aquatic habitat along the McArthur River Diversion Channel.

The Largetooth Sawfish is a species listed as Vulnerable³ and the focus of an acoustic monitoring program in the McArthur River Diversion Channel. The recording of five individuals passing through the Diversion Channel since 2017 supports the assertion that fish passage for this species is not impaired as the number exceeds the minimum requirement for demonstrating passage of sawfish through the Diversion Channel (fish passage once every five years).

Findings - Air Quality Management

The air quality management audit focused on the Mine's sulphur dioxide (SO₂) and particulate matter (dust) emissions.

Review of continuous SO_2 monitoring data shows there were no exceedances at either the monitoring site approximately 5km north of the Mine or at the Mine accommodation village. All SO_2 monitoring data for both sites were below the National Environmental Protection Measure (NEPM) guidelines in the audit period.

Analysis of the dust deposition monitoring network data found that dust concentrations, due to the mining activities, would likely not be discernible from background concentrations at Borroloola and Goolminyini, due to the distance from the Mine.

The audit found implementation of the Air Quality Management Plan (AQMP) including the air monitoring program is sufficient to minimise risks of potential air emissions-related impacts at the Mine and surrounding areas.

Findings - Surface Water Management

A focused review of surface water management found the WMP to be comprehensive in establishing the Mine's surface water management system for water quality requirements, water balance modelling and monitoring programs. The surface water monitoring schedule is comprehensive and field practices were observed being implemented in accordance with industry best practice.

The water management system avoids uncontrolled discharge from dam overtopping and manages the treatment and transfer between storage of different classes of water, to maintain the site's water balance. There was no water release in the 2022/2023 audit period.

³ Vulnerable as defined under the Environment Protection and Biodiversity Conservation Act 1999.



The accumulation of Lead Oxide (PbOx) water in surface water storage dams, in particular EPROD, is the largest potential surface water risk and requires focused attention. The gypsum water treatment plant scheduled for completion in 2024 is specifically designed to treat PbOx water.

Findings - ICE Activities

The Mine's Engineering team appoint and work with the ICE, whose responsibility it is to oversee construction works and to certify the works meet design specifications. The ICE provides Quality Assurance / Quality Control (QA/QC) scrutiny to ensure discrete construction activities are completed in accordance with requirements of the design specifications.

Some evidence of ICE oversight and certification for various construction work has been made available. There is scope for improvement with respect to ICE processes for progressive sign-off on construction activities. Regular provision of monthly ICE construction reports and certified 'as constructed' reports upon completion of construction would provide greater assurance that works have been undertaken in accordance with the requirements including design specification.

Findings - AMP Review

The AMP has been developed and implemented consistent with the requirements of the Authorisation. The AMP adequately meets the Authorisation as it 'partly satisfies' or 'satisfies' all of the active requirements of the Authorisation's key conditions 45, 46 and 47 along with sixteen other relevant conditions.

The AMP has been improved over time (initial version developed in January 2020) to better fulfil aspects of the Authorisation requirements, including the addition of new sections and figures to provide greater clarity, rigour, structure and definition of the processes for environmental management and monitoring and performance reporting.

Inclusion of measurable performance indicators and the current Trigger Action Response Plan (TARP) process enables management and measurement of performance. The current AMP provides a sound basis for environmental planning, management and continuous improvement.

Comparative Analysis 2020, 2021, 2022 and 2023

The findings of four consecutive AEPARs (2020 to 2023) were examined to identify and assess any improvement or deterioration in compliance scores for the Authorisation, WDL, NT EPA recommendations and river health.

A continuous improvement trend in Authorisation and WDL compliance scores attained by the Operator in recent years is illustrated in Figure ES-4. The total number of Operator OFIs for the Authorisation and WDL combined was 24 in 2020, 28 in 2021, 22 in 2022 and 14 in the 2023 AEPAR. The reduction in number of OFIs over time reflects improvement in compliance.



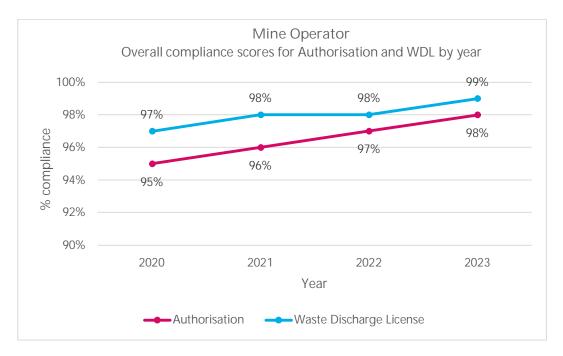


Figure ES-4: Mine Operator compliance scores by year

DITT has maintained a high level of compliance for the Authorisation and the NT EPA recommendations since 2020 (Figure ES-5). The total number of DITT OFIs was 12 in 2020 and 19 in 2021, 17 in 2022 and 12 in the 2023 AEPAR.

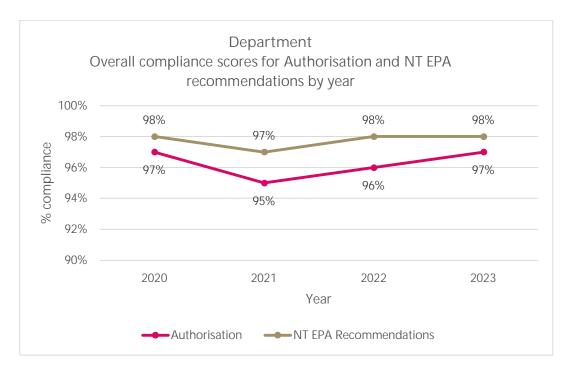


Figure ES-5: DITT compliance scores by year



Stakeholder Engagement

The Independent Monitor engaged with the local community in October 2022 to communicate the findings of the 2022 AEPAR. Face to face engagement sessions were held in Borroloola (including town camps) and were also conducted in Robinson River, Wandangula (Police Lagoon), Goolminyini (Devil Spring) and Minyalini (Campbell Spring).

Engagement was conducted by Cross Cultural Consultants, supported by a local community member who is a long-time Borroloola resident, well known throughout the region, and a Yanyuwa/Marra Traditional Owner. Feedback from the participants indicated that this approach was very well received by community members.

Hard copies of the 2022 Annual Report Card (ARC) (a plain English visual summary report of the 2022 AEPAR) were presented to stakeholders. Community members provided feedback that the ARC enabled the local community improved access to and understanding of the Independent Monitor activities and findings.

As river health was previously identified as a primary concern of the local community, community members were consulted about the findings relating to the health of the McArthur River fish. None of the community members who were engaged mentioned any concerns with the findings relating to these issues. Community members appeared satisfied that the audit results indicate the Operator has a high level of compliance with the regulatory conditions relating to river health.

Community members stated they would like more opportunities to be involved with the water quality monitoring program and land management activities. The feedback indicated local community participation in environmental monitoring programs would increase local community confidence in results.

Conclusion

The 2023 AEPAR provides a compliance audit of the Mine by assessment against regulatory requirements, including the Authorisation, WDL and NT EPA recommendations. The audit also considered the Operator's commitments, DITT's regulatory approach, the health of the McArthur River system, air quality monitoring, surface water management and ICE activities. A comparison between the findings of the 2020, 2021, 2022 and 2023 AEPARs was undertaken to assess any changes in environmental performance.

The Operator's very high level of compliance with the Authorisation and WDL conditions across key operational activities is a measure of the level of fulfillment of regulatory requirements. The Operator has increased compliance with the Authorisation by 1% from the 2022 AEPAR to 98% in 2023, and achieved a 1% increase for the WDL to 99%.

Consistent with river system health findings reported in the 2020-2022 AEPARs, the McArthur River and its tributaries were considered to be in good health overall. Analysis of metals in aquatic fauna (fish) during the audit period showed there were no exceedances of Maximum Permitted Concentrations. Limited exceedances of metal concentrations in waterway sediments were found in some locations in Barney Creek and Surprise Creek in areas immediately adjacent to operational areas within the mineral lease boundary, where public access is not permitted. This poses a low risk to human health but will require ongoing management.



The part-compliances identified for the Operator were not considered to be a significant environmental issue or of consequence requiring urgent investigation or attention. The majority of the part-compliances were of an administrative nature (e.g., relating to delays in the submission of 'as constructed' reports, ITRB reviews and granting of approvals) and were of no immediate physical environmental consequence.

DITT increased its level of compliance with the Authorisation by 1% from the 2022 AEPAR to 97% and maintained a 98% compliance score for the implementation of the NT EPA recommendations. It was noted that timeframes for DITT's establishment of Independent Panels for the NOEF and TSF have taken an unduly long time.

The environmental performance of both the Operator and DITT is fundamentally linked to the level of compliance achieved against Authorisation and WDL conditions, specifically designed to safeguard the environmental values of the McArthur River and protect the health of the McArthur River from potential impacts of the Mining activities. Based on the audit findings the Operator has achieved a trend of continuous improvement in compliance performance in recent years and DITT has maintained a high level of compliance. Where the review found the Operator or DITT had attained part-compliance, the Independent Monitor identified opportunities for potential enhancements in environmental compliance and performance.



Acronyms and abbreviations

Acronym/abbreviation	Definition
AAPA	Aboriginal Areas Protection Authority
AEP	Annual Exceedance Probability
AEPAR	Annual Environmental Performance Audit Report
AGM	Annual General Meeting
AMD	Acidic and Metalliferous Drainage
AMP	Adaptive Management Plan
ANCOLD	Australian National Committee on Large Dams
APP	Mill Anti-Pollution Pond
AQMP	Air Quality Management Plan
Aspect	Environmental Aspect - environmental or community receptor e.g. air quality or surface water
Authorisation	Variation of Authorisation issued under the <i>Mining Management Act</i> 2001 (NT)
BBLF	Bing Bong Loading Facility
BBRA	Broad Brush Risk Assessment
BGM	Bituminous Geotextile Membrane
CALPUFF	Software for modelling air quality
CCC	Cross Cultural Consultants
CCL	Compacted Clay Liner
CRG	Community Reference Group
DAWE	Department of Agriculture, Water and the Environment (Commonwealth), formerly Department of the Environment and Energy
DCCEEW	Department of Climate Change, Energy the Environment and Water (since July 2022), formerly Department of Agriculture, Water and the Environment
DEPWS	Department of Environment, Parks and Water Security (NT)
DITT	Department of Industry, Tourism and Trade (NT)
Domain	Operator Domain – an operational area of the Mine, e.g. Tailings Storage Facility
EIS	Environmental Impact Statement



Acronym/abbreviation	Definition
EMP	Environmental Management Plan
EMR	Environmental Monitoring Report (submitted from 2020 onwards, replacing the Operational Performance Report). MMA refer to EMR document as Environmental Mining Report
EMU	Environmental Monitoring Unit (DITT, Mining Operations)
EoR	Engineer of Record
EPROD	East Perimeter Run-Off Dam
ESDAT	DITT's environmental monitoring database system
GoldSim	Software for water balance model
GPS	Global Positioning Systems
HSEC	Health, Safety, Environment and Community
HVAS	High Volume Air Sampler
ICE	Independent Certifying Engineer
ILUA	Indigenous Land Use Agreement
ITP	Inspection and Test Plan
ITRB	Independent Tailings Review Board
JSA	Job Safety Analysis
JSEA	Job Safety and Environment Analysis
LWD	Large Woody Debris
MCP	Mill Concentrator Pond
Mine	McArthur River Mine
Minister	NT Minister for Mining and Industry
MMA	Mining Management Act 2001 (NT)
MMP	Mining Management Plan
NATA	National Association of Testing Authorities
NCR	Non-Compliance Reports
NEPM	National Environmental Protection Measure
NOEF	North Overburden Emplacement Facility
NT	Northern Territory
NT EPA	Northern Territory Environment Protection Authority



Acronym/abbreviation	Definition
OBIS	Operations Based Information System – register of mining activities authorised under the MMA
OFI	Opportunity for Improvement
OMP	Overburden Management Project
OMS Manual	Operations, Maintenance and Surveillance Manual
Operator	McArthur River Mining Pty Ltd
OPR	Operational Performance Report (submitted until 2018-2019, superseded by the Environmental Mining Report submitted from 2020)
PAF	Potentially Acid Forming
PbOx	Lead oxide
PCFW	Purple Crown Fairy Wren
PROD	Perimeter Runoff Dam
QA	Quality Assurance
QC	Quality Control
RL	Relative Level
RMP	Rehabilitation Management Plan
ROM	Run of Mine
SCADA	Supervisory Control and Data Acquisition – pipeline monitoring system
SEPROD	Southeast Perimeter Run-Off Dam
SPROD	Southern Perimeter Run-Off Dam
SSTV	Site-Specific Trigger Value
TARP	Trigger Action Response Plan
TSF	Tailings Storage Facility
TWG	Technical Working Group
WDL	Waste Discharge Licence, issued under the Water Act 1992 (NT)
WMP	Water Management Plan
WMD	Water Management Dam



1 Introduction

1.1 Purpose and Objective

This Annual Environmental Performance Audit Report (AEPAR) presents findings for regulatory compliance at the McArthur River Mine (the Mine) during the audit period, 01 May 2022 to 30 April 2023. This audit period coincides with the reporting period for the Environmental Monitoring Report 2023 (EMR 2023). The audit considers the activities of the Operator and the Northern Territory (NT) Department of Industry, Tourism and Trade (DITT). This AEPAR has been prepared by the Independent Monitor.

The primary objective of this AEPAR is to assess and report, to the Minister for Mining and Industry, the Operator's and DITT's level of compliance in relation to fulfilling and managing the Mine's environmental obligations. It is also to provide transparency to the community in relation to the findings. This audit identifies opportunities for improvements in environmental performance.

1.2 McArthur River Mine Overview

The Mine is located on one of the world's largest deposits of zinc and lead, approximately 970 kilometres (km) south-east of Darwin. The closest community is Borroloola, which is about 65 km north-east of the Mine. The McArthur River mining operation includes an open cut mine, processing plant, tailings storage, and overburden emplacement facilities. Zinc and lead are mined and processed at the Mine and trucked to the Bing Bong Loading Facility (BBLF) on the Gulf of Carpentaria. The mineral concentrate is loaded onto a barge and transported to deeper water for transferring onto bulk carrier export vessels.

1.3 Audit Methodology

The following actions were undertaken by the Independent Monitor (Advisian Ltd) in preparing this AEPAR:

- Audit of the level of compliance of the Operator and DITT against regulatory approval conditions in Authorisation 0059 (Authorisation), issued under the *Mining Management Act 2001* (NT) (MMA) and regulated by DITT (439 conditions and sub-conditions for the Operator and 242 conditions and sub-conditions for DITT)
- Audit of the level of compliance of the Operator against regulatory approval conditions in the Waste Discharge Licence (WDL) Number 174, issued under the Water Act 1992 (NT) and regulated by the Department of Environment, Parks and Water Security (DEPWS) (110 conditions and subconditions)
- Audit of both the Operator and DITT on the implementation of the Northern Territory Environment Protection Authority (NT EPA) recommendations provided in Assessment Report 86, McArthur River Mine Overburden Management Project (OMP), July 2018 (117 recommendations and subparts for DITT)
- Review of the Operator's implementation of other environmental commitments
- Review of DITT's regulatory approach
- Review of the health of the McArthur River system in the vicinity and downstream of the Mine



- Review of the Operator's environmental risk management process
- Comparative analysis of the compliance score results of the 2020, 2021 and 2022 AEPARs
- Review of the status of the 2021AEPAR Opportunity for Improvements (OFIs) list for both the Operator and DITT.

In addition to the Independent Monitor's tasks above, this 2023 AEPAR included:

- Review of the Mine's air quality monitoring
- Review of the Mines' surface water management
- Review of Independent Certifying Engineer (ICE) activities
- Review of the Mine's Adaptive Management Plan (AMP).

Stakeholder engagement with Borroloola community residents was completed by Cross Cultural Consultants Pty (CCC) and supported by a local community member who is a long-time Borroloola resident and well known throughout the region, on behalf of the Independent Monitor in May and October 2022. As part of the engagement, CCC presented the results of the relevant AEPAR, gathered feedback on the engagement approach and informed the Borroloola community on proposed engagement for the 2023 AEPAR.

The Independent Monitor audits are planned to occur annually. The detailed findings will be reported in the AEPAR, with key findings presented in an 'Annual Report Card'(ARC). Both the AEPAR and ARC will be made publicly available on the DITT website.

1.4 Regulatory Requirements

1.4.1 Authorisation

Authorisation 0059 issued under the MMA to the Operator for the Mine is the principal mechanism that enables DITT to regulate the Mine's operation.

During the audit period of this AEPAR (01 May 2022 to 30 April 2023), two variations to the Authorisation dated 18 June 2021 and 05 May 2022 were active, under the MMA.

This audit focussed on compliance against the Authorisation, in effect as of the 05 May 2022. There were only minor revisions between the 2021 and 2022 Authorisations. The preceding Authorisation dated 13 November 2020 approved activities in the Overburden Management Project (OMP) incorporating new conditions that addressed relevant aspects of the proposed mining operations submitted in the Mining Management Plan (MMP) amendment, dated 31 January 2020.

There were 178 Authorisation conditions, down from 240 in 2022, that were not triggered or that will only become relevant outside the audit period of this AEPAR. These have been noted as future requirements to assess in subsequent AEPARs.

1.4.2 Waste Discharge Licence

The Waste Discharge Licence (WDL) authorises the Operator to manage the controlled discharge of water to nominated water courses from specified discharge points. Discharge is to consist only of wastewater from sources identified in the WDL. Water quality parameters are compared to the



specified trigger values at nominated surface water monitoring locations. The WDL requires monitoring, measurement and reporting of water quality parameters at authorised monitoring points.

The WDL approval is under the *Water Act 1992* (NT) and is administered by DEPWS. The intention of the WDL is to regulate discharge activities so that the Operator, in conducting the activity, does "all things reasonable and practical to ensure the activity does not adversely affect the Declared Beneficial Uses and Objectives and Sites of Conservation Significance." In other words, the intention of the WDL is to regulate activities so that the Operator does all things reasonable and practical to ensure that the discharge of water from the Mine does not adversely affect the McArthur River system.

The conditions contained in WDL 174-13 (valid 25 May 2021 to 25 May 2023, amendment issued 10 March 2022) were in place during the audit period. The Operator's compliance against the 109 WDL conditions and sub-conditions are presented in Section 3.3.

1.4.3 NT EPA Recommendations

The NT EPA recommendations have a central aim of achieving the overarching environmental outcome that: "...requires the health of the McArthur River to be protected along its entire length at all times from Mine related impacts...".⁵

The NT EPA recommendations are non-statutory requirements but contain proposed actions for both the Operator and DITT. The NT EPA recommendations were provided in the NT EPA's *Assessment Report 86, McArthur River Mine Overburden Management Project*, dated July 2018. In accepting the NT EPA recommendations of *Assessment Report 86*, the then Minister for Primary Industries and Resources took responsibility for implementing the relevant NT EPA recommendations under the authority of the MMA.

The NT EPA recommendations, under the direct control of the Operator, have been adopted into statutory requirements as conditions of the Authorisation, dated 13 November 2020. As part of this audit, all NT EPA recommendations and sub-parts were reviewed against the relevant Authorisation conditions to confirm whether the recommendations had been transferred into the Authorisation.

The NT EPA recommendations also provide matters for action by DITT as the agency responsible for the administration of the MMA. This audit report reviews the levels of compliance of both the Operator and DITT in their implementation of the NT EPA recommendations.

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⁴ Waste Discharge Licence (WDL 174-13), Section 16.

⁵ NT EPA Assessment Report 86, McArthur River Mine Overburden Management Project, July 2018, page 101, Recommendation No.3.



2 Approach

2.1 Process

The audit was undertaken in alignment with the approach and principles of ISO 19011 (2018) *Guidelines for auditing management systems.* The key principles underpinning the audit included: integrity; fair presentation; due professional care; confidentiality; independence; and use of an evidence-based and risk-based approach.

The format of this audit had been designed to allow comparative evaluation between this AEPAR and subsequent years to readily identify year-on-year compliance performance improvements and/or indicate trends that may need to be addressed.

A quantitative audit was undertaken to assess compliance against the Authorisation and WDL conditions, as well as implementation of the non-statutory NT EPA recommendations. A qualitative review was undertaken to provide an assessment of the Operator's commitments, DITT's regulatory approach, the overall health of the McArthur River system and the Operator's air quality monitoring and surface water management procedures. The methodology and scoring guide are described in Section 2.2.

2.2 Quantitative Compliance Audit

The following steps were conducted for the quantitative compliance audit, which assessed the level of compliance against the Authorisation conditions, WDL conditions and implementation of the NT EPA recommendations:

- All Authorisation and WDL conditions, sub-conditions and NT EPA recommendations were assigned to either the Operator, DITT or both, based on the party with the responsibility for meeting, or contributing to, each condition.
- All Authorisation and WDL conditions, sub-conditions and NT EPA recommendations were
 assigned a status of active or inactive, based on whether the requirement was triggered and/or
 active during the audit period. Conditions yet to be triggered have been noted as future
 requirements, assigned as inactive, and were scored as not applicable. The number of active
 conditions assessed in future audits will increase as additional time, activity and approval-based
 triggers occur.
- Compliance audits were conducted through a combination of audit interviews with representatives of the Operator and DITT, and a review of sample documentation and selected relevant information obtained by the Independent Monitor through a Request for Information process. The audit interviews, evidence collection and review processes were undertaken on-site and remotely during the period of May 2023 to September 2023.
- The level of compliance for each active condition, sub-condition and NT EPA recommendation was
 assessed and given a score between 0 to 4, using the scoring guidelines presented in Table 2-1. In
 cases where more than one score was applicable for a condition, the most conservative (lowest)
 score was applied. Only active conditions and sub-conditions were considered in the calculation of
 the compliance scores.
- The scores for each active condition, sub-condition and NT EPA recommendation were aggregated against the highest potential total score to calculate overall compliance scores (%) for the



- Authorisation, WDL and NT EPA recommendations respectively for both the Operator and DITT. Additional analysis of Operator compliance against Operator Domains and Environmental Aspects was also undertaken for the active Authorisation conditions. This is described in Section 3.2.1.
- OFIs and notable successes were documented and presented in Sections 3, 4 and 5. Typically, a
 non-compliance or part compliance finding will be accompanied by a related OFI; however, in
 some circumstances, an OFI has not been prepared because the situation has since been rectified
 or the requirement has been superseded.

Table 2-1: Compliance Scores and Guidelines

Score	Description	Guidelines
0	Non-Compliance	 Fails to meet all elements of the condition/requirement Negligible/no evidence of action Lack of plan to address condition/requirement Represents high risk to the environment, Operator and/or DITT
1	Part Compliance (low)	 Fails to meet a majority of elements of the condition/requirement Limited evidence of action Limited plan to address condition/requirement Represents high risk to the environment, Operator and/or DITT
2	Part Compliance (moderate)	 Fails to meet a number of elements of the condition/requirement Medium level of evidence of action Plan to address condition/requirement, but not fully implemented Represents medium risk to the environment, Operator and/or DITT
3	Part Compliance (high)	 Fails to meet a small number of elements of the condition/requirement High level of evidence of action Implemented plan to address Represents low risk to the environment, Operator and/or DITT
4	Full Compliance	 Full compliance based on sample evidence All elements of the condition/requirement are met High level of evidence of action Represents negligible risk to the environment, Operator and/or DITT

2.3 Qualitative Review

The qualitative reviews focussed on:

- The Operator's implementation of the voluntary commitments (refer to Section 3.5)
- The Operator's environmental risk management process (refer to Section 3.6)
- DITT's regulatory approach (refer to Section 4.4)
- The McArthur River system's overall health in the vicinity and downstream of the Mine (refer to Section 5)



- The Operator's air quality monitoring (refer to Section 6)
- The Operator's surface water management (refer to Section 7)
- The Operator's ICE activities (refer to Section 8)
- The Operator's AMP (refer to Section 9).

As with the quantitative compliance audit, the qualitative reviews were conducted using a combination of audit interviews with representatives of the Operator and DITT, and a review of sample documentation and selected relevant information obtained through a Request for Information process. The Independent Monitor interviews, evidence collection and review processes were undertaken remotely during the period of June 2022 to October 2022 and supplemented with Mine site visits in March and May 2023.

The findings of the qualitative reviews are presented as narratives in Sections 3.5, 3.6, 4.4, 5, 6, 7, 8 and 9. OFIs and notable successes are also documented in these sections.

2.4 Reference Documents

The main reference documents considered during the AEPAR review are listed in Table 2-2Table 2-2.

Table 2-2: Annual Environmental Performance Audit Report Key Reference Documents

No.	Reference Document	Document Source
1	Adaptive Management Plan, McArthur River Mine, Revision E, 13 May 2022	Operator
2	Adaptive Management Plan, Appendix A – Water Management Plan	Operator
3	Adaptive Management Plan, Appendix B – Air Quality Management Plan	Operator
4	Adaptive Management Plan, Appendix C – Rehabilitation Management Plan	Operator
5	Environmental Monitoring Report (EMR), 2022, 31 August 2022	Operator
6	Environmental Monitoring Report (EMR), 2023, 31 August 2023	Operator
7	Mining Management Plan, McArthur River Mine, 31 January 2020	Operator
8	Mining Management Plan, McArthur River Mine, Appendix G - NOEF Management Plan, 31 January 2020	Operator
9	Mining Management Plan, McArthur River Mine, Appendix I - TSF Raising - General Specification for Design and Construction Document, 31 January 2020	Operator
10	NT EPA Assessment Report 86, McArthur River Mine Overburden Management Project, July 2018	NT EPA
11	Variation of Authorisation 0059, dated 05 May 2022	DITT



No.	Reference Document	Document Source
12	Waste Discharge Licence 174-13, commencement date 25 May 2021, amendment date 10 March 2022, expiry date 25 May 2023.	DEPWS

2.5 Review Team

Advisian Pty Ltd (Advisian) was appointed to the Independent Monitor role in December 2019. Representatives of the Independent Monitor visited the Mine and the BBLF in March 2020 for project inception meetings and site orientation. Members of the Independent Monitor team conducted the following site visits in the audit period:

- Aquatic ecosystems monitoring audit (May 2022)
- Stakeholder engagement, local community in Borroloola (October 2022)
- Air Quality Monitoring and ICE audit (March 2023)
- Surface Water Management audit (June 2023).

The AEPAR team consisted of staff from Advisian and sub-consultants with relevant experience and qualifications, refer to Table 2-3.

Table 2-3: Annual Environmental Performance Audit Report Review Team Members

Role	Qualifications	Number of Years' Experience
Lead Environmental Auditor	B. Eng. (Civil), M.Env.Mgmt.	31
Assistant Environmental Auditor	B.Eng.Env. (Hons), MBA Tech. Mgmt.	23
Assistant Environmental Auditor	B. Eng. (Mining), M.Env.Mgmt. (Sustainable Development)	20
Stakeholder Engagement Lead	B. B.Env. (Urban & Regional Planning), B.Env.	16
Community Engagement Lead	B. Indigenous Community Mgmt.	21
Water Engineering	B.Eng. (Env.)	23
Technical Reviewer	B.Eng, (Civil), M.Env.Eng. (Hons.)	28
Reviewer	B.Sc. (Hons)	24
Data Analyst	B.Sc. (Env. Mgmt.), PostGradDip, (Env.Mgmt.)	2
Aquatic Ecologist	B. Aqua. Sci. (Hons.), PhD Aqua Sci.	23

2.6 Stakeholder Engagement

A Stakeholder Engagement Plan was prepared to guide community and stakeholder engagement and communications for the Independent Monitor. A NT-based Aboriginal business, CCC, was appointed to facilitate community engagement throughout the Independent Monitor process. The Stakeholder Engagement Plan (September 2022), nominated community consultation activities to align with the



key Independent Monitor outputs and activities. The stakeholder engagement activities and findings are discussed in Section 12.



3 Review of Operator

3.1 Objective

The objective of the review of the Operator is to assess the level of compliance of the Operator against the relevant conditions of the Authorisation (including NT EPA recommendations) and the WDL. It is also to review the performance of the Operator against relevant commitments contained in the MMP and FMR.

3.2 Authorisation – Operator Compliance Audit

3.2.1 Scope and Approach

The audit considers the period between 1 May 2022 and 30 April 2023 and compliance evidence was gathered for this period.

The Operator was assessed against the regulatory conditions contained in the Authorisation (variations dated 18 June 2021 and 5 May 2022) for compliance during the audit period, using the quantitative audit approach and scoring criteria described in Section 2.2. An analysis of the Authorisations was conducted to determine which relevant conditions from each should be included in the Operator audit. Only minor updates were made to the conditions of Authorisation between 2021 and 2022 including:

- Condition 7 all environmental monitoring data to be submitted annually instead of quarterly and removal of the requirement to report soils environmental monitoring data
- Condition 10 increase in security
- Condition 15 update from Environmental Assessment Administrative Procedures 1984 to Environment Protection Act 2021
- Condition 29 modifications to what is required for the monitoring program that provides improved understanding of aquatic ecosystems in the McArthur River
- Condition 39 updated to refer to condition 37 instead of 38 (although this appears to be an error)
- Condition 51 updated to refer to condition 19 instead of 20 (although this appears to be an error)
- Condition 64 updated list of water storage structures
- Schedule D 6 updated to reflect the Environmental Management Plans approved in the MMP.
- Ten conditions from the 18 June 2021 Authorisation that had not been retained in the 5 May 2022 Authorisation.

Overall, there was little change as all other Authorisation conditions in the 18 June 2021 Authorisation remained identical in the 5 May 2022 Authorisation.

Further analysis of Operator Authorisation compliance was undertaken by categorising all conditions and sub-conditions into Environmental Aspects and/or Operator Domains. The Environmental Aspects and Operator Domains consider the same Authorisation conditions compliance findings, however they facilitate deeper interpretation from different perspectives.



Environmental Aspects are defined as environmental or community receptors that would be protected by relevant conditions or potentially impacted if the conditions are not met. The additional Aspect, *Monitoring and Reporting*, has also previously been part of the analyses. The Environmental Aspects are:

- Air quality
- Surface water (rivers, creeks, and artificial dams)
- Marine waters (BBLF and marine sediments)
- Groundwater
- Aquatic fauna
- Vegetation and rehabilitation
- Waste (mining overburden and general waste)
- Community
- Monitoring and reporting.

Operator Domains are defined as areas of the mineral lease that are distinguished by an operational activity and utilised by the Independent Monitor to examine different areas of the Mine. In general, the Operator Domain names used in this compliance audit align with those used by the Operator in management plans, monitoring programs and reporting. An additional Domain, *Governance/General*, was added to categorise conditions which have overarching management oversight, and/or apply to multiple Domains. The Domains are:

- Governance/General
- Open Pit/Underground workings
- Tailing's storage facility
- Water Management and Storages
- Overburden emplacement facilities
- Exploration
- Waterways (including river diversion)
- Bing Bong Loading Facility
- Non-Mineral waste management (Waste).

3.2.2 Findings

General Findings

A summary of overall Authorisation compliance findings is shown in Table 3-1Table 3-1.

Table 3-1: Summary of Authorisation Compliance - Operator

Description	No.
Total number of conditions and sub-conditions relevant to Operator	437
Number of active conditions and sub-conditions during the audit period	259



Description	No.
Number of full compliances	237
Number of part compliances (high)	19
Number of part compliances (moderate)	3
Overall compliance score of active conditions	98%

Detailed audit findings, supporting evidence, part compliances and scores are contained in *Authorisation Compliance Workbook – Operator*, refer to Appendix A.

Environmental Aspects Findings

A summary of the Operator's Authorisation compliance score for each Environmental Aspect is presented in Table 3-2 Table 3-2 and Figure 3-1.

Table 3-2: Authorisation – Operator Compliance Scores by Environmental Aspect

Environmental Aspect	Total No. of Conditions	No. of Active Conditions	Scores	Compliance (Active Conditions)
Air Quality	12	11	44	100%
Surface Water	175	104	406	98%
Marine Waters	6	4	16	100%
Groundwater	51	31	121	98%
Aquatic fauna	45	37	147	99%
Vegetation and Rehabilitation	22	6	24	100%
Waste	122	66	255	97%
Community	38	33	132	100%
Monitoring and Reporting	245	155	604	97%

Compliance Level by Environmental Aspect

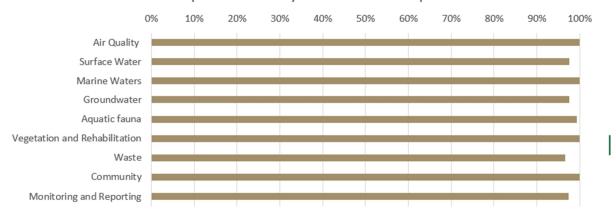


Figure 3-1: Authorisation – Operator Compliance Level by Environmental Aspect



The overall high level of compliance with the Authorisation conditions across the Environmental Aspects is an indicator of the level of fulfilment of regulatory requirements by the Operator. The key findings in relation to Environmental Aspects are outlined below and detailed audit findings for compliance levels and OFIs for all Environmental Aspects are presented in the Appendix A.

The Air Quality, Marine Waters, Vegetation and Rehabilitation and Community Environmental Aspects attained full compliance scores of 100% based on 11, 4, 6 and 33 active conditions respectively.

The *Aquatic Fauna* Environmental Aspect attained a compliance score of 99% from 37 active conditions. There was one part-compliance due to a lack of evidence in the WMP relating to assumptions for attenuation of metals from mine-derived wastes.

The *Groundwater* Environmental Aspect attained a compliance score of 98% from 31 active conditions, with the 3 part compliances (high) attributable to incomplete coverage of requirements in the WMP. These related to a lack of detail regarding specific assumptions being tested for groundwater flow paths and attenuation of metals from mine-derived wastes, and no evidence provided of consultation with the NT EPA.

The *Surface Water* Environmental Aspect achieved a compliance score of 98% based on 104 active conditions. There was one condition with a part compliance (moderate) related to verifying the HDPE liner installed at Eastern Perimeter Runoff Dam (EPROD). There were 8 conditions with part compliances (high) as follows:

- The WMP not including sufficient detail of specific assumptions being tested related to attenuation of metals from mine-derived wastes.
- Actions resulting from inspections, listed in the Dams and Sumps Register, did not appear to have been recorded since December 2021.
- Weekly inspections were not conducted for the Southern Perimeter Runoff Dam (SPROD) and EPROD in accordance with Australian National Committee on Large Dams (ANCOLD) (2003), and current versions of the Dam Safety Emergency Plan and Operations, Maintenance and Surveillance (OMS) manuals did not exist.
- Inspections were not conducted for the NOEF North East Alpha Sump and NOEF Central East Bravo Sump as part of mine water structures management.
- Permanent gauging stations were not installed at Emu Creek and the Glyde River.

The *Waste* Environmental Aspect includes the management of waste rock in the overburden emplacement facilities, an area of high potential environmental risk if management controls are not adequately implemented. Against the 66 active waste-related conditions, the Operator had a compliance score of 97% with 7 part compliances (high) and 1 part compliance (moderate). This is an increase on the 95% *Waste* score in the 2022 AEPAR. The part compliances were related to:

- No evidence provided for the NOEF (particularly the operation phase) that the ICE has overseen
 and certified the works to meet design specifications, approved recommencement of works at
 hold points and prepared weekly / monthly progress reports
- No evidence provided prior to the appointment of the Operator's project manager/resident that
 the ICE did "agree in writing that this does not diminish the ICE's responsibility or liability for the
 project".



- The ICE has not warranted and accepted both the design and construction works specifically without limitation on responsibility for the NOEF or TSF
- The WMP did not include sufficient detail, of specific assumptions being tested relating to attenuation of metals from mine-derived wastes.
- No evidence was provided of ITRB review of Buttress Expansion Letter, Intermediate Buttress
 Design Report and Cell 2 Stage 7 Raise Construction report and the TSF OMS Manual (at least
 annually).

Construction reports or as built construction reports verify that the Mine's facilities (e.g. dams, NOEF and TSF) have been built in accordance with the relevant Authorisation conditions and approved design and specifications. NOEF as built construction reports have not been available for a combination of reasons. Clarification on which structures (facilities) and what interim stages of construction require as built construction reports, and what defines construction completion, will assist the Operator to meet requirements and support the progressive preparation of as built construction reports in a timely manner.

The *Monitoring and Reporting* Environmental Aspect achieved a compliance score of 97% from 155 active conditions. There were 13 conditions that scored Part Compliance (high) and 2 that were scored Part Compliance (moderate). These part compliances were as follows:

- As built construction reports were not provided to DITT for the TSF Cell 1 Stage 5 and Cell 2 Stage
 6.
- The Independent Certifying Engineer (ICE) has not warranted and accepted both the design and construction works specifically without limitation on responsibility for the NOEF or TSF
- The ICE has not signed off on all hold points and no evidence of ICE overseeing and certifying that the works meet design specifications was provided for the NOEF
- No evidence provided prior to the appointment of the Operator's project manager/resident from the ICE to "agree in writing that this does not diminish the ICE's responsibility or liability for the project".
- No evidence of the Independent Tailings Review Board (ITRB) involvement in endorsing TSF design changes (buttresses), TSF Operations, Maintenance and Surveillance Manual (OMS Manual) and construction documentation
- The WMP did not include sufficient detail of specific assumptions being tested related to groundwater flow paths and attenuation of metals from mine-derived wastes and a lack of consultation with the NT EPA and TARPs not being revised annually prior to each wet season.
- Sufficient detail on the timeframes for action/s if TARP triggers are exceeded were not included in the AMP.
- Information has not been provided on how transparency in monitoring, reporting and review processes are conducted under the AMP
- Permanent gauging stations were not installed at Emu Creek and the Glyde River (note: cultural heritage approval been received since the audit period and construction is scheduled for 2024)
- The TSF Operations, Maintenance and Surveillance Manual (OMS Manual) was not finalised based on updates required following construction and changes in operation and the ITRB has not reviewed and endorsed it.



Domain Findings

A summary of the Operator's Authorisation compliance score for each Operator Domain is presented in Table 3-3 and Figure 3-2.

Table 3-3: Authorisation – Operator Compliance Scores by Operator Domain

Domain	Total No. of Conditions	No. of Active Conditions	Scores	Compliance (Active Conditions)
Governance/General	183	118	460	97%
Open Pit/Underground Workings	3	1	4	100%
Tailings Storage Facility	65	36	136	94%
Water Management and Storages	99	37	142	96%
Overburden Emplacement Facilities	73	53	206	97%
Exploration	16	12	48	100%
Waterways (including river diversion)	95	68	267	98%
Bing Bong Loading Facility	8	6	23	96%
Non-mineral Waste Management	10	1	4	100%

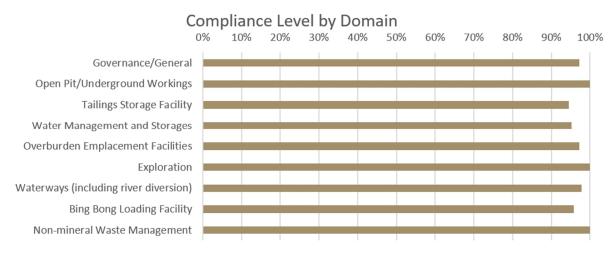


Figure 3-2: Authorisation – Operator Compliance Level Illustrated by Operator Domain

The key findings in relation to Operator Domains are outlined below, and the detailed audit findings for compliance levels and opportunities for all Operator Domains are presented in *Authorisation Compliance Workbook – Operator*, refer Appendix A.

The Open Pit/Underground Workings, Exploration and Non-mineral Waste Management Operator Domains were assessed as achieving the highest compliance (100%) with the Authorisation, based on 1, 12 and 1 active conditions, respectively.



The Tailings Storage Facility and Overburden Emplacement Facilities Operator Domains have amongst the highest levels of potential environmental risk. The Tailings Storage Facility and Overburden Emplacement Facilities Operator Domains achieved compliance scores of 94% and 97% respectively. The Tailings Storage Facility score is higher than the 93% score for the 2022 AEPAR. For the Tailings Storage Facility Operator Domain 36 active conditions, there were 6 part compliances (high) and 1 part compliance (moderate). Three were ITRB related, 3 were ICE related, and 1 was related to the WMP.

The *Overburden Emplacement Facilities* score is also slightly higher than the 96% score for the 2022 AEPAR. For the *Overburden Emplacement Facilities* Operator Domain 53 active conditions, there were 6 part compliances. One was related to the Reconciliation of Commitments and Actions Register, one was related to the WMP and four were ICE related part compliances. The ICE and ITRB conditions are important for ensuring independent oversight of the TSF and Overburden Emplacement Facilities.

Two other Operator Domains (*Water Management and Storages* and *Waterways*) achieved high compliances of 95% and 98%, with 37 and 68 active conditions respectively. These represent a decrease from the score of 99% and increase from the score of 97% for each respective Domain from the 2022 AEPAR.

Governance activities are the requirements and procedural elements of the regulatory conditions that provide an overarching means to achieve compliance and environmental performance outcomes. There are 183 conditions relevant to the *Governance/General* Operator Domain, 118 of which are currently active. The Operator was assessed as achieving a compliance score of 97% which was consistent with the 2022 AEPAR.

The *Bing Bong Loading Facility* Operator Domain scored 96% and increase of 1% from 2022, from 6 active conditions, one of which was a part compliance (high).

Where relevant, OFIs have been developed for those conditions in all Operator Domains assessed as having less than full compliance, and these are outlined in Section 3.2.3.

3.2.3 Opportunities for Improvement

Potential opportunities identified by the Independent Monitor that support continuous improvement are detailed in Table 3-4Table 3-4.

Table 3-4: Authorisation – Operator Opportunities for Improvement

OFI Ref.	Authorisation Condition No.	Opportunities for Improvement			
General					
OFI-23-OP- AUTH-01	3^^	Prepare annual as-built factual reports for the NOEF as required by the MMP.			
Mining Mana	Mining Management Plan and Reporting				
OFI-23-OP- AUTH-02	8^^	Submit 'as built' construction reports for the TSF to DITT within 30 days upon construction being finalised.			
Overburden	Overburden Management Project				



OFI Ref.	Authorisation Condition No.	Opportunities for Improvement
OFI-23-OP- AUTH-03	46.c	Incorporate more detail on the timeframes for action/s if TARP triggers are exceeded.
OFI-23-OP- AUTH-04	46 .e	Incorporate more information to outline how transparency in monitoring, reporting and review is provided to show openness and accountability.
Independent	oversight - Appoint	tment of ICE
OFI-23-OP- AUTH-05	48.b*	Ensure the ICE progressively prepares monthly construction reports for the NOEF.
OFI-23-OP- AUTH-06	48.c	Ensure the ICE sign off all hold points.
OFI-23-OP- AUTH-07	48.f	Operator to ensure the ICE agrees in writing that the appointment of an Operator's project manager/resident engineer as an onsite representative does not diminish the ICE's responsibility or liability for the project.
Independent	Tailings Review Boa	ard
OFI-23-OP- AUTH-08	50.b.ii, 50.e & 50.e.ii*	Provide evidence of ITRB review of Buttress Expansion Letter, Intermediate Buttress Design Report and Cell 2 Stage 7 Raise Construction report and the TSF OMS Manual (at least annually).
OFI-23-OP- AUTH-9	50.b.ii,, 50.e & 50.e.ii*	Ensure that the ITRB meets annually.
Water Manag	gement and Storage	
OFI-23-OP- AUTH-10	64	Document and update actions resulting from inspections, listed in the Dams and Sumps Register as it appears no actions have been recorded since December 2021.
OFI-23-OP- AUTH-11	64.a and 64.d	Provide confirmation that the weekly inspections of the SPROD and EPROD are being undertaken in accordance with ANCOLD (2003), and provide current versions of the Dam Safety Emergency Plan and Operations, Maintenance and Surveillance (OMS) manual.
OFI-23-OP- AUTH-12	64.p	Document inspections of North East Bravo Sump between June 2022 and April 2023.
OFI-23-OP- AUTH-13	64.s	Document inspections of Central East Bravo Sump between October 2022 and April 2023.
Environment	al Monitoring and N	Management
OFI-23-OP- AUTH-14	Schedule D - 3.a and 3.b*	Construct the permanent gauging stations on Emu Creek and the Glyde River now that approvals have been received.

Note:

Where there were observations of importance relating to a condition but a part compliance and OFI were not deemed warranted, these observations are included in the Authorisation Compliance

^{^^} indicates OFI was carried over from 2021 AEPAR.

^{*} Indicates OFI was very similar to an OFI from 2022 AEPAR.



Workbook – Operator, refer Appendix A, preceded by the text, 'OBS'. Key observations are included in Table 3-5. Table 3-5

Table 3-5: Authorisation – Operator Observations

OBS Ref.	Authorisation Condition No.	Observations		
OBS-23-OP- AUTH-01	16.c	Although an audit of loads has not been conducted by the Independent Monitor, this requirement is now redundant as the condition has been removed from the Authorisation dated 17 May 2023.		
OBS-23-OP- AUTH-02	20	Monthly construction reports collating permeability test and any non-conformances to Compacted Clay Layer (CCL) thickness or a register of permeability tests as previously provided in 2022 have not been provided for the audit period.		
OBS-23-OP- AUTH-03	27.b.ii	The WMP could be enhanced by incorporating an evaluation of effectiveness of source control to reduce loads to as low as is reasonably practicable.		
OBS-23-OP- AUTH-04	27.b.ii	Confirmation of groundwater, water quality objectives and targets being met could be enhanced by considering the development and incorporation of a TARP for groundwater water quality into the WMP and AMP.		
OBS-23-OP- AUTH-05	27.c	Comments from the NT EPA should be considered for incorporation into the WMP.		
OBS-23-OP- AUTH-06	27.g.i, 27.g.ii & 27.g.iii	The WMP should be updated to incorporate the requirement to ensure results of the program:		
		 are reported annually to the Department 		
		 are audited by the Independent Monitor every three years 		
		• be published on the Operator's website.		
OBS-23-OP- AUTH-07	36.b	Comments from the NT EPA should be considered for incorporation into the Aquatic Ecology Management Plan.		
OBS-23-OP- AUTH-08	41.a	Requirement to get the independent third-party reaccepted for review of security before due date of 13 Nov 2023.		
OBS-23-OP- AUTH-09	41.b	DITT should consider changing the wording of this condition if reapproval of the qualified person to undertake the independent third-party assessment of the security is not required.		
OBS-23-OP- AUTH-10	44.c	The AMP and associated WMP should be updated annually if the EMR identifies a change is required.		
OBS-23-OP- AUTH-11	45.a.v	Further detail on potential contingency measures timelines for the implementation of management actions in Table 9 (AMP Revision E) should be provided.		
OBS-23-OP- AUTH-12	45.a.vi	Incorporate further information on the processes to assess the effectiveness of the Monitoring Programs and enable adaptive		



OBS Ref.	Authorisation Condition No.	Observations
		adjustment, including further information on the interactions between the annual EMR and the AMP.
OBS-23-OP- AUTH-13	49	The Operator should provide evidence that the ICE holds public and professional indemnity insurance to cover the scope of works that covers the audit period.
OBS-23-OP- AUTH-14	62.c.iii.d	The location of the warning signage should be agreed with DITT, acknowledging the impracticality of locating signage along the length of the shipping channel and in the immediate area surrounding the shipping channel and swing basin.
OBS-23-OP- AUTH-15	64	Actions in the Dams and Sumps Register 2022 and 2023 dating from 2020 to 2021 from should be completed and recorded.
OBS-23-OP- AUTH-16	64.f	There is a period between 5 May 2022 and June 2022 where this sump may have been used for AMD storage without approval. Consider documenting when structures are decommissioned.
OBS-23-OP- AUTH-17	79.a.i	Table 8-3 of the OMS Manual should be updated to be consistent with TARP Table 8-10 which specifies density >50% as the target normal range.
OBS-23-OP- AUTH-18	80	The October 2022 - December 2022 TSF Quarterly report was not submitted until 29 May 2023. This is more than a quarter between submissions.
OBS-23-OP- AUTH-19	80.d	Recommendations in the TSF Recommendation Instruction and Action Register should be closed out by the due date. Where actions are not completed by the due date, stating "overdue" rather than "incomplete" and using a different colour of shading in the TSF Recommendation Instruction and Action Register, may prove helpful.
OBS-23-OP- AUTH-20	Schedule D - 4	Evidence that groundwater monitoring bores and extraction bores are maintained and decommissioned in accordance with the minimum construction requirements for water bores in Australia, published by the National Uniform Drillers Licensing Committee, should be provided to confirm compliance with this condition.
OBS-23-OP- AUTH-21	Schedule D – 4.b	There appear to be bores that are damaged and unserviceable that should be maintained to keep the monitoring bores available for monitoring. In the event they can't be used, perhaps they should be maintained, rehabilitated (to repair a bore that has failed) or decommissioned.
OBS-23-OP- AUTH-22	Schedule D - 5	Document weekly inspections of the cattle exclusion zone fence undertaken, or amend the inspection schedule in the Cattle Management Plan to reflect what is practical.
OBS-23-OP- AUTH-23	Schedule D – 6.a.i	Revise TARPs annually prior to each wet season to ensure they are up to date and the WMP should be updated accordingly.



OBS Ref.	Authorisation Condition No.	Observations
OBS-23-OP- AUTH-24	Schedule D – 6.a.ii	HVAS sampling should be undertaken every six days as required by the AQMP.

3.2.4 Conclusions

The high level of compliance with the Authorisation conditions across all key operational activities is an indicator of the fulfillment of relevant regulatory requirements achieved by the Operator.

The Operator Authorisation audit findings identified 14 OFIs (presented in Table 3-4) for the conditions assessed as having part compliance.

3.3 Waste Discharge Licence – Operator Compliance Audit

3.3.1 Scope and Approach

The Operator was assessed against the relevant conditions contained in WDL 174-13 issued 10 March 2022 in effect from 25 May 2021 to 25 May 2023. Compliance during the audit period was assessed using the quantitative audit approach and scoring criteria described in Section 2.2.

3.3.2 Findings

A summary of WDL findings are shown in Table 3-6Table 3-6.

Table 3-6: Summary of WDL Compliance - Operator

Description	No.
Total number of conditions and sub-conditions relevant to Operator	109
Number of active conditions and sub-conditions during the audit period	86
Number of full compliances	85
Number of part compliances (high)	1
Overall compliance score of active conditions	99%

Detailed audit findings, supporting evidence, part compliances and scores are contained in the *WDL Compliance Workbook – Operator*, refer to Appendix B.

A summary of the Operator's WDL compliance score for each WDL Section is presented in Table 3-7Table 3-7 and Figure 3-3Figure 3-3.



Table 3-7: WDL - Operator Compliance Scores by WDL Section

WDL Sections	Total No. of Conditions	No. of Active Conditions	Scores	Compliance (Active Conditions)
General	31	25	100	100%
Early Surrender of Licence	1	0	0	-
Operational	13	10	40	100%
Discharges	11	3	12	100%
Monitoring	18	15	59	98%
Recording and reporting	31	29	116	100%
Performance improvement	4	4	16	100%

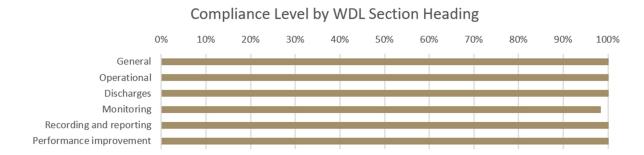


Figure 3-3: WDL – Operator Compliance Level by Section

The key findings in relation to the WDL compliance by the Operator are outlined below.

The *General, Operational, Discharges, Recording and reporting* and *Performance improvement* sections of the WDL achieved 100% compliance indicating that, while part compliances within conditions of other sections of the WDL have been identified, waste discharge is in compliance with the specific operational and discharge conditions.

A very high level of compliance of 99% was also achieved in the WDL section relating to *Monitoring* with only one part compliance (high) out of 15 active conditions. The part compliance relates to a requirement to always maintain signage at water monitoring location SW-08.

There are no recorded OFIs for the Operator relating to WDL compliance in this AEPAR. The Operator has progressively achieved a significant reduction in the number of WDL OFIs, from 8 in 2021 to 4 in 2022 and with none in 2023. The previous OFI requirements have now been addressed with small improvements to the Water Monitoring Program and updates to some WDL conditions.

In circumstances where audit findings of importance related to a condition, but a part compliance and OFI were not deemed warranted, an observation was recorded. These observations may assist to maintain compliance or enhance performance and are included in the *WDL Compliance Workbook – Operator*, comments column, refer to Appendix B, preceded by the text, 'OBS'. Key observations are included below in Table 3-8. Table 3-8.



Table 3-8: WDL - Operator Observations

OBS-23-OP- WDL-01	8	The Communication Plan would benefit from including a date of issue and version control.
OBS-23-OP- WDL-02	17	Condition 17 is a duplicate of the requirements of condition 8 and it is noted it is removed from WDL 174-14.
OBS-23-OP- WDL-03	18	Evidence related to demonstrating Li-Anthawirriyarra Sea Ranger Unit Vessel, currently used for undertaking water quality monitoring, is fit for purpose, maintained, and operated by a person trained to use the vessel, should be provided in future audits.
OBS-23-OP- WDL-04	24.1	Evidence of maintaining the flow meters should be provided for future audits.
OBS-23-OP- WDL-05	24.1	The Bing Bong discharge events only occur during dredging and part of preparations for dredging activity should include installation of a flow measuring device.
OBS-23-OP- WDL-06	26	SW28 is included in the monitoring schedule but not the field sheets provided as evidence as we understand it is generally dry. SW29 is also included in the monitoring schedule but not the field sheet provided. All monitoring locations should be included on the field sheets.
OBS-23-OP- WDL-07	28	Sampling for diffuse gradients in thin films sampling should be undertaken as close as practically possible to quarterly periods.
OBS-23-OP- WDL-08	38.1	The time of detection of non-compliances as well as the date should be included in the notification to the Regulator.

3.3.3 Conclusions

The audit review has assessed the Operator as having a very high level of overall compliance with active WDL conditions at 99% which is a 1% improvement on 2022.

The WDL audit did not identify any OFIs, which is a consequence of the very high level of compliance.

3.4 NT EPA Recommendations – Operator Compliance Audit

In accepting the NT EPA recommendations of *Assessment Report 86*, the then Minister for Primary Industries and Resources took responsibility for implementing the recommendations that apply under the authority of the MMA.

Consistent with the previous AEPARs the NT EPA recommendations have been included as Authorisation conditions. The very high level of Operator compliance with the conditions of Authorisation (98%), refer Section 3.2 and Appendix A, corresponds to the very high level of Operator compliance with the NT EPA recommendations.



3.5 Voluntary Commitments

3.5.1 Scope and Approach

In addition to the Authorisation and WDL conditions, the Operator has made a number of commitments to support improved outcomes across the Mine operation. These commitments have been identified and adopted by the Operator from the OMP Environmental Impact Statement (EIS), and others have been set out in the MMP. The EMR contains a reconciliation of environmental commitments, with the commitments register providing a status update against the commitments set out in the MMP based on activity undertaken in the Operator's monitoring period.

The Independent Monitor reviewed the commitments set out in the MMP. The MMP (Section 5.3) describes commitments and refers to two sets of commitments:

- Relevant OMP EIS commitments (Appendix M)
- Key commitments developed since the OMP EIS (2018) (Appendix L).

The Operator has clarified that the MMP's 'EIS Commitments Register' (Appendix M) was adapted from the OMP EIS Commitments (Appendix AB) and that MMP's 'Commitments contained within the MMP' (Appendix L) included commitments relating to regulatory approvals and actions that had not been included in the OMP's EIS Commitments Register. Furthermore, the Operator indicated that the two registers were current, with neither superseding the other.

As the commitments are not necessarily regulatory requirements, the scorecard approach adopted for the audit of the Authorisation and WDL (as described in Section 2.2) was not used in this case. Instead, and consistent with the approach undertaken for the 2021 AEPAR, a qualitative review of the commitments was undertaken (as described in Section 2.3), with general commentary and OFIs provided.

Both sets of MMP commitments were reviewed (Appendix L and Appendix M), along with the reconciliation of commitments contained within the EMR (Appendix B). Consideration was given to whether the commitments set out in the MMP were addressed in the EMR, and whether they were complete, ongoing, or not currently relevant because they related to later stages of operation at the Mine. For review of the reconciliation of commitments contained within the EMR, consideration was also given to whether the EMR 2023 effectively addressed the commitments. It is noted that the wording of a number of commitments is non-specific and as such, review of performance against these is not quantifiable.

3.5.2 Findings

The review identified that all the OMP EIS commitments provided in the MMP (Appendix M) were addressed in the EMR. Other commitments identified in the MMP (Appendix L) were not addressed in the EMR. Notwithstanding, from the 13 commitments identified in the MMP (Appendix L), all appear to be addressed to some extent within the OMP EIS commitments, apart from one commitment, i.e., 'Install additional groundwater monitoring at Bing Bong'.

In total, 230 commitments were identified in the EMR. Of these, 158 commitments were identified to be ongoing (i.e., relating to ongoing committed activity at the Mine), eight commitments were identified to be complete (i.e., no further action required), and 64 commitments were identified to be not currently relevant (e.g., commitments relating to specific actions during the Mine closure).



Of the 158 ongoing commitments, the EMR 2023 provided by the Operator indicated that six commitments may be incompletely addressed. These related to the following activities:

- Geochemical investigations had not been undertaken for the BBLF this commitment was also identified as incompletely addressed in the 2021 and 2022 AEPAR
- A water level gauging station on the Glyde River was not operational, noting that planning continued regarding the recommissioning of the Amelia Yard gauging station on the Glyde River – this commitment was also identified as incompletely addressed in the 2022 AEPAR
- A waterway model was not progressed in the reporting period, noting that it will be updated after sufficient low-flow monitoring data has been obtained from the level logger monitoring program
- A Gouldian Finch Monitoring Program is to be prepared by 2025 in accordance with a Commonwealth approval
- The Gurdanji Ranger Group was not established and was put on hold pending the negotiation of an Indigenous Land Use Agreement with Traditional Owners following request of the Traditional Owner negotiation team
- The Operator noted intention to continue to conduct internal corporate Health Safety Environment and Community (HSEC) audits for the Mine, rather than undertake both internal and external audits – this commitment was also identified as incompletely addressed in the 2021 and 2022 AEPAR.

Reporting against commitments in the EMR 2023 was consistent with the previous audit period. It is notable that some work activity related to several commitments has not occurred in accordance with timeframes reported in respective EMRs. These include:

- Rehabilitation trials on NOEF were expected to occur in 2021, then 2022 and now 2023, noting this is related to the placement of a final cover system
- Relevant to geochemical and hydrological modelling of the NOEF, kinetic leaching experiment was expected to occur in 2022 and now 2023
- Installation of long-term monitoring system (relevant to net percolation and gases below the cover system) was deferred from 2022 to 2023, noting this is related to delays in development of the NOEF
- Review and update of the Weed Management Plan was expected to occur in 2021, then 2022 and now 2023
- Update of the site wide numerical groundwater model was expected to occur in 2022, then 2022/2023 and now 2023/2024
- Repairs/replacement to the reverse osmosis water treatment plan was expected to occur in 2022, then 2023 and now 2024.

3.5.3 Opportunities for Improvement

Opportunities to support continuous improvement of the implementation, tracking and reporting of commitments are detailed in Table 3-9, noting the opportunities are not mandatory requirements. It is also notable that these opportunities are replicates of those identified for the previous audit period.



Table 3-9: Operator Commitments - Opportunities for Improvement

OFI Ref.	Opportunities for Improvement		
OFI-23-OP- COM-01^^	Provide detail and address the outstanding commitments from the MMP (Appendix L), along with the six incomplete actions for the commitments reported in the EMR (Appendix B).		
OFI-23-OP- COM-02^^	Incorporate the commitments from the MMP (Appendix L and Appendix M) into a single commitments register for reporting against in future EMRs and rationalise the commitments to avoid duplication.		
OFI-23-OP- COM-03^^	Provide additional information in the commitments register to identify where a commitment is closed out with no further action proposed. Provide details of close-out actions to confirm commitments are complete, e.g., date completed, brief description of action completed, reference to relevant supporting report/ data/ documentation.		
OFI-23-OP- COM-04^^	Provide a unique reference number to each commitment to facilitate tracking and reporting.		

Note: ^^ indicates OFI was carried over or replicated from 2021 and 2022 AEPAR.

3.5.4 Conclusions

The majority of the Operator's reported commitments are adequately addressed through the EMR. In line with the 2022 AEPAR, commitment management would further benefit from consolidation and rationalisation of the commitment register, along with clearer tracking and reporting of commitments.

Steady progress continues to be made on commitments to support improved outcomes across the Mine operation. The planned implementation of some commitments has been repeatedly reported in consecutive EMRs as these have not occurred in accordance with stated timeframes.

3.6 Environmental Risk - Operator Review

3.6.1 Scope and Approach

The objective of the risk review is to assess the Operator's environmental risk management process, implementation status, and the effectiveness of controls.

This review scope is not to recreate the environmental risk register, but to review the risk register and associated documents to assess the adequacy of the risk process and to determine whether key environmental risks have been afforded appropriate consideration.

A review of the Operator's performance in environmental risk management was conducted by examining the following key documents:

- Environmental Risk Assessment (MMP January 2020)
- Risk Management Plan (October 2021).
- Environmental Risk Assessment (Risk Workshop May 2022)

A qualitative review of the environmental risk management process was undertaken (as described in Section 2.3) with general commentary and OFIs provided. Through assessment of the relevant documents and samples of information, the following were reviewed:



- Risk management process
- Risk register
- Preventative controls implementation and risk status
- Risks presented in the EIS and the MMP
- Annual findings to determine improvement in risk profile
- Effectiveness of controls.

3.6.2 Findings

Risk Process

The Operator utilises a comprehensive suite of risk management processes, including corporate governance, risk assessment workshops, risk registers and software tools, which provide an appropriate framework for identifying and managing environmental risks associated with the Mine's operations. The main risk management document is the Risk Management Plan, which establishes the structured framework for a common approach to the risk management process. The Risk Management Plan's framework is based upon ISO 31000 (2018) Risk Management - Guidelines, and incorporates overall risk management processes, risk responsibilities and guidance on risk identification, analysis and reviews of effectiveness.

The majority of risks in the MMP Environmental Risk Assessment are based upon risks identified at the time of the OMP EIS and generated by an externally-facilitated risk assessment process, based upon ISO 31000 and MRM Corporate standards. An external facilitator was engaged to conduct a risk assessment workshop in May 2022 to produce the current risk register. The MMP environmental aspects and impacts register has also been utilised to identify risks evaluated in the environmental risk register.

Environmental Risk Assessment Register

The Operator's most recent 2022 Risk Register (Risk Workshop, May 2022) is summarised and reviewed below.

- 40 'risk title' risks listed
- Risk 'Caused by' described
- 'Risk Control Effectiveness' and 'Treatment Plan (new controls)' added
- Reference added indicating whether the risk is derived from OMP EIS or a newly identified risk following Broad Brush Risk Assessment (BBRA)
- Environmental controls are described and generally appear to be existing controls or management plans
- Six out of the 40 risk ranking scores are the same as the residual risk ranking score
- Status of all 40 risks assessed are listed as 'In-progress'.

The 2022 risk register has an improved and more comprehensive format with more information than the 2020 register. All 34 risks, including two risks split into four sub risks, from the 2020 register along with two new risks are assessed in the 2022 version. The risk scenarios in the 2020 register can be associated with the risks listed in the 2022 register. Comparisons between the annual environmental risk performance and the identification of improvements in risk profile can be made.



The latest 2022 register presents 'existing preventative controls' and 'existing mitigation controls' and introduces some new controls under the column heading of 'Treatment Plan'. The 2022 environmental risk assessment register format with unique individual risk identifiers has been enhanced to become a more effective environmental risk status tracking tool.

Environmental Monitoring Report

The 2023 EMR Section 4.2 – Environmental Risk Assessment describes that the Operator conducted a risk workshop coordinated by an independent risk assessment facilitator on 12 May 2022. The outcome of the workshop was the overall risk profile for the Mine was slightly reduced, with a greater proportion of risks ranked as 'low' when compared to the January 2020 MMP and OMP EIS.

Two risks given additional consideration in the 2022 risk register, were:

- Spontaneous combustion of reactive material in the overburden emplacement facility
- Poor water quality releases from TSF overflow.

Risk Status

Based upon the information reviewed, the EMR provided an annual review of the most recent environmental risk assessment to check there was no change in the environmental risk profile. It appears there was no revision of the environmental risk assessment register or documentation to capture new or altered risks or controls that may have occurred during the 12-month period to May 2023. It is understood that the next risk workshop coordinated by an independent risk assessment facilitator is planned for 2024.

The 2022 risk register lists numerous mitigation measures implemented during the period which constitute environmental controls. Examples of improved environmental performance and potentially reduced residual risk ratings not previously noted have been incorporated into the risk register (e.g. 'TSF interception trench project completion' and 'consider sumps at the mill to control dust in runoff'). The risk ranking status of these control measures is summarised in the Environmental Risk Assessment register and where appropriate improvements in the residual risk profile shown.

Monitoring risk status is a key step in regularly reviewing the risk register. As individual risks are mitigated and their risk status changed (e.g. closed), the risk rating score after effective risk treatment will be lower and environmental risk management progress can be tracked. An analysis of risk ratings between 2019, 2020 and 2022 register found fewer 'medium' risks each year on year with the implementation of control measures supporting the re-categorisation of more risks to the 'lower' risk category. The 2022 risk register assessed 55% of the 40 risks as 'low' and 45% as 'medium risk.

Effectiveness of Controls

As part of risk monitoring and review, the environmental control should be reviewed to determine the adequacy and effectiveness of actions associated with managing the risk and achieving objectives.

An assessment of the risk control effectiveness has been added to the 2022 risk register to allow the effectiveness of controls to be assessed.

Over time, the effectiveness of controls (e.g., fully effective, substantially effective, partially effective, largely ineffective, totally ineffective) may change, and the resultant residual risk level may be altered. The effectiveness of controls can be assessed by considering if they reduce the likelihood of the



situation occurring or if they reduce the consequence. The 2022 risk register assessed risk control effectiveness as 'satisfactory' for 36 risks and 'requires improvement' for four risks.

3.6.3 Opportunities for Improvement

Potential opportunities to support continuous improvement of the environmental risk management processes are detailed in Table 3-10Table 3-10, noting the opportunities are not mandatory requirements.

Table 3-10: Risk Management - Opportunities for Improvement

OFI Ref.	Opportunities for Improvement
OFI-22-OP- RI-01^^	Implement regular formal environmental risk assessment reviews to monitor the effectiveness of controls as part of continuous improvement.
OFI-22-OP- RI-02^^	Undertake regular formal environmental risk assessment reviews to update risk status and track environmental risk management progress as part of continuous improvement.

Note: ^^indicates OFI was carried over from 2021

3.6.4 Conclusions

The Risk Management Plan provides the Mine with a comprehensive process and appropriate risk management framework in accordance with the relevant international risk standard series, ISO 31000 (2018) *Risk Management*. The Environmental Risk Assessment register contains appropriate identification, risk analysis and proposed controls for the Mine's key environmental risks.

The review found there is improved correlation between the 2020 and 2022 MMP Risk Assessment registers, as the risk descriptions and referencing of individual risks match to enable tracking of risks and risk performance over time. An assessment of the risk control effectiveness has been added to the 2022 risk register.

Strengthening the monitoring and risk review steps in the Risk Management Plan process would assist environmental performance. This would be achieved by conducting regular, e.g. annual, formal environmental risk assessment reviews of the effectiveness of risk controls, status and risk profile trends as part of continuous improvement to demonstrate risk management progress.

3.7 Operator Successes

The audit and review process identified some noteworthy successes achieved by the Operator during the audit period which have contributed to continuous environmental improvement. These Operator successes are summarised below:

NOEF Liner Systems – Progressive installation and performance monitoring of the NOEF bituminous geomembrane system has enabled a large-scale cover trial. In 2022 approximately 15 hectares of Bituminous Geotextile Membrane (BGM) was installed on the western face of the NOEF including two separate monitoring systems (wireless and fibre optic). The cover system's BGM liner prevents the ingress of water and oxygen into the NOEF and a direct benefit of installation is the reduction of AMD seepage in sumps.



Barney Creek Sediment Removal Program - Adaptive management action undertaken to remove potentially-contaminated sediments from Barney Creek and the construction of silt traps to capture runoff have contributed to protecting downstream environmental values. Results of sediment analysis show reductions in lead and zinc concentrations compared with those recorded in 2018. Analysis of metals in aquatic fauna during the audit period showed there were no exceedances of Maximum Permitted Concentrations in tissue concentrations. Reductions in metal concentrations in sediment and tissue samples since 2018 appear to be attributable to the removal of sediments from Barney Creek.

Dust Suppression Binder Trials - A trial of dust suppression binders in water carts as a mitigation measure for dust impact associated with mine haulage is planned for late 2023. Three DustTrak monitoring stations have been used to collect baseline data to enable an assessment of the effectiveness of the dust binder against existing haul road watering methods.

Rehabilitation Trial NOEFs – Rehabilitation trials have been undertaken to inform long-term performance and design of the NOEF cover systems. Seed mix trials were conducted in the 2023 dry season and a successful revegetation trial was undertaken for the NOEF northern clean water diversion rain, with planting completed and well established since the 2022/2023 wet season

McArthur River Diversion Channel Rehabilitation - The key objective of rehabilitation of the McArthur River Diversion Channel is to establish a functioning riverine ecosystem comparable to the original water course. Over 900,000 tubestock have been planted in the McArthur River Diversion Channel since 2010. A total of 120,000 tubestock sourced from the Mine's onsite nursery were planted in 2022. The results of the revegetation monitoring program indicate that rehabilitation is on a positive trajectory. In 2021, one revegetation site within the Barney Creek domain and two revegetation sites within the McArthur River domain attained an acceptable status and no longer requiring any further rehabilitation works or monitoring.

Onsite Seed Collection - 80% of the native seed stock used for revegetation of the McArthur River Diversion is collected on site. Mechanised quad bike mounted seed collection equipment has been developed which provides much greater efficiency over manual seed collection given the quantities required for tubestock propagation.

McArthur River Diversion Channel Large Woody Debris – Placement of large wood debris within the McArthur River diversion channel has facilitated the development of aquatic fauna habitat and increased aquatic fauna diversity.

Water Quality Monitoring - Indigenous Participation - Local Indigenous Ranger and their vessel(s) used in Operator WQ monitoring program at both the McArthur River and the BBLF for the purposes of completing Diffusive Gradient Thins monitoring and to help collect surface water samples at locations close to Borroloola.

Water Management Dam (WMD) Upgrade - An upgrade to the WMD to raise the dam wall and spillway heights in 2022 has given increased storage capacity and greater flexibility for on-site water reuse. The upgraded WMD potentially reduces the frequency and volume of managed discharge to the McArthur River and further provides water storage flexibility to avoid uncontrolled overflow from other dams.

Glyde River and Emu Creek Gauging Stations –AAPA approval has recently been received to enable the construction and installation of permanent water quality gauging stations to provide continuous monitoring data. Previously water quality monitoring data from temporary water loggers in these



locations was impaired due to damaged or lost equipment impacted by high flows and sediment movement. Safety risks for staff associated with regular collection of data and maintenance of equipment will be reduced when the permanent gauging stations are built and operational, as currently planned in 2024.

EMP Synthesis of Monitoring Data – Section 5 of the 2023 EMR demonstrates consideration of the results of twelve main annual monitoring programs in the context of a source-pathway-receptor model to systematically examine potential impacts on receptors in natural environment (waterways, flora and fauna) at and surrounding the Mine. This appears to be a practical approach to synthesise results of monitoring programs in an annual ongoing assessment of the impact of mining activities.

AMP Enhancements - The current AMP (Revision E, May 2022) has been improved to better fulfil aspects of the Authorisation requirements, including the addition of new sections and figures that provide greater clarity, rigour, structure and definition of the processes for:

- · Environmental management and monitoring
- Monitoring Programs
- TARPs including TARP level 3 investigation reporting and assessment against environmental objectives
- Environmental performance SMART criteria triggers
- Potential contingency measures
- · AMP review and revision.

The listing of measurable performance indicators and the current TARP process allows MRM to show whether objectives are on target to be met. The current AMP provides a sound basis for environmental planning, management and continuous improvement.



4 Review of DITT

4.1 Objective

The objective of the audit was to assess DITT's level of compliance against the relevant Authorisation conditions and the implementation of NT EPA recommendations, and conduct a review of DITT's regulatory procedures.

4.2 Authorisation – DITT Compliance Audit

4.2.1 Scope and Approach

DITT's performance was assessed against the regulatory conditions contained in the Authorisations in effect (dated 18 June 2021 and 5 May 2022) during the audit period using the quantitative audit approach and scoring criteria described in Section 2.2.

Consistent with the approach for the audit of the Operator, an analysis of the two Authorisations was conducted to determine which relevant conditions from each should be included in the DITT audit as discussed in Section 3.2.1.

Following determination of the conditions to be audited, each condition was reviewed to confirm if it had a DITT action or not. DITT performance was only assessed against conditions with an explicit or implied action required by DITT.

4.2.2 Findings

A summary of findings is shown in Table 4-1. Table 4-1

Table 4-1: Summary of Authorisation Compliance - DITT

Description	No.
Total number of conditions and sub-conditions relevant to DITT	245
Number of active conditions and sub-conditions during the audit period	149
Number of full compliances	132
Number of part compliances (high)	16
Number of part compliances (moderate)	1
Overall compliance score of active conditions	97%

Detailed audit findings, supporting evidence, part compliances and scores are contained in *Authorisation Compliance Workbook – DITT*, refer to Appendix C.

Further analysis was undertaken by assessing conditions and sub-conditions under Authorisation sections, generally aligned with the section headings in the Authorisation. As noted below, some of the Section headings have been amalgamated under related Authorisation sections.



- General incorporates MMP and reporting, security and levy, exploration, non-mineral waste management and geochemical, geotechnical and hydrogeological assessment, and investigation drilling
- Waste Rock Management permanent placement of non-benign waste
- Water Management incorporates storage, transfer and discharge
- Tailings Storage Facility incorporates ITRB
- Environmental and Independent Monitoring incorporates two conditions related to dredging at BBLF
- Overburden Management Project incorporates conditions to reflect the NT EPA recommendations
- Adaptive Management incorporates requirements for a revised AMP
- Mine Closure incorporating unplanned closure.

A summary of DITT's Authorisation compliance score for each Authorisation Section is presented in Table 4-2Table 4-2 and Figure 4-1Figure 4-1.

Table 4-2: Authorisation – DITT Compliance Scores by Section

VoA Sections	No. of Conditions	No. of Active Conditions	Scores	Compliance
General	21	16	61	95%
Waste Rock Management	3	1	4	100%
Water Management	7	0	0	-
Tailings Storage Facility	10	7	26	93%
Environmental and Independent Monitoring	75	30	120	100%
Overburden Management Project	116	88	335	95%
Adaptive Management	7	7	28	100%
Mine Closure	7	1	4	100%

Compliance Level by VoA Section

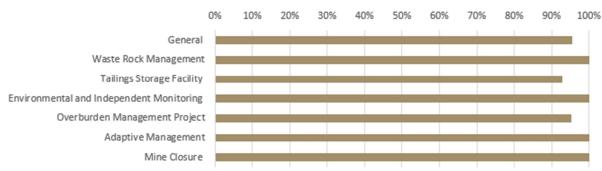


Figure 4-1: Authorisation – DITT Compliance Level Illustrated by Authorisation Section

The key findings in relation to Authorisation compliance by DITT are outlined below and the detailed audit findings for compliance levels and opportunities for all sections are presented in *Authorisation Compliance Workbook – DITT*, refer Appendix C.



The proportion of active conditions is close to two-thirds, with a large number of the conditions future requirements and as a result are not triggered during the audit period.

The Authorisation provides environmental safeguards in the form of conditions, primarily concentrated on the potential higher environmental risks associated with the *Overburden Management Project* and *Waste Rock Management* sections. The review found DITT to have a strong focus on key environmental risks with correspondingly high number of conditions related to the NOEF and the TSF.

DITT has been audited against some conditions that do not explicitly state that it is a DITT requirement but where the Operator had an action to provide a report or evidence to DITT. For DITT to have regulatory oversight and determine any areas of risk or non-compliance, review by DITT of submissions from the Operator or tracking of potential absence of submission/s needs to occur.

The Water Management section did not have any active conditions.

The *Environmental and Independent Monitoring* Section attained a compliance score of 100% with 30 active conditions.

The *Adaptive Management* Section was assessed as achieving a compliance score of 100% with 7 active conditions.

The *Mine Closure* Section achieved a compliance score of 100%. The one active condition was related to a review of the Operator's submitted Unplanned Closure Plan for 2023 activities. The *Waste Rock Management* Section also achieved a 100% compliance score from one active condition.

The *General* Section received a compliance score of 95% from 16 active conditions. This was due to one part compliance (moderate) related to DITT not ensuring that the Operator submitted 'as built' constructed reports for the TSF, and one part compliance (high) related to time-lapsed prior to formal DITT assessment of the EMR.

'As built' construction reports are central to verifying that the Mine's facilities (e.g. dams, NOEF and TSF) have been built in accordance with the relevant authorisation conditions and approved design specifications. Some 'as built' construction reports have not been available for a combination of reasons. Clarification on which structures (facilities), what interim stages of construction and what defines construction completion will assist to clearly state requirements and support the progressive preparation of 'as built' construction reports in a timelier manner. Noting that after the audit period, the 2023 Authorisation requires the Operator to provide an annual list of structures under construction for which 'as constructed' report will be submitted.

The *Tailings Storage Facility* Section attained a compliance score of 93%. The one part compliance, that is not explicitly a DITT requirement but is related to DITT, was for DITT to monitor details of the members of the ITRB panel, meeting frequency and endorsement. There appears to have been little or no action by DITT to monitor or review the activities of the ITRB. It is an Authorisation requirement that the Operator facilitates the ITRB to advise on the operation of the TSF and any modification to its design. There is little evidence (e.g. meeting minutes, reviews, reports), that the ITRB was operating regularly during the audit period. The other part compliance (high) was related to TSF Quarterly Reports with DITT to review and assess TSF quarterly reports in a more timely fashion and advise the Operator in writing when reports are accepted.

It was noted that there are no regulatory timeframes for responses for some review and approval tasks or establishment of Independent Panels. With a considerable amount of time elapsed there are now



potential delay implications for other Authorisation requirements that are reliant upon Independent Panel(s) commencement, which has made it difficult to meet conditions to address potential environmental risks.

The *Overburden Management Project* Section relates to the management of waste rock in the overburden emplacement facilities, which is an area of high potential environmental risk, if risk management controls are not adequately implemented. A 95% compliance score was achieved against 88 active related conditions. This Section had part compliances related to:

- Submitted documents were not reviewed or approved in a timely manner
- Independent Panels (NOEF and TSF) have not been established.

There are four examples where DITT have been unduly slow to provide a formal approval of a management plan submitted by the Operator and required by the Authorisation. The management plans awaiting formal approval are: NOEF Geosynthetic Liner Cover System Plan, WMP and Aquatic Ecology Management Plan. In some cases, the Authorisation states for management plans: 'once approved by the Department, be implemented by the Operator'. The undue delay in DITT's approval of the plans creates ambiguity in when the Operator must commence implementing the plans, which are central to addressing potential environmental risks.

OFIs have been developed for those conditions assessed as attaining part compliance and are outlined in Section 4.2.3.

4.2.3 Opportunities for Improvement

Potential opportunities to support continuous improvement identified by the Independent Monitor through the review and audit process are detailed in Table 4-3Table 4-3, noting these are not mandatory requirements.

Table 4-3: Authorisation – DITT Opportunities for Improvement

OFI Ref.	Authorisation Condition No.	Opportunities for Improvement
Mining Mana	agement Plan and	d Reporting
OFI-23-DE- AUTH-01	8^^	DITT to follow up the requirement for the Operator to submit TSF as built construction reports for approved works for the TSF Cell 1 Stage 5 and Cell 2 Stage 6 raises.
OFI-23-DE- AUTH-02	9	DITT to formally assess the annual EMR within an agreed timeframe.
Overburden	Management Pro	ject
OFI-23-DE- AUTH-03	16.e, 17.b, 23.e, 27,e, 29.c 36.e & 37.d	Provide more timely responses from DITT on review/approval of submitted documents.
OFI-23-DE- AUTH-04	21	DITT to establish the Independent Panels (NOEF and TSF) as soon as practical.



OFI Ref.	Authorisation Condition No.	Opportunities for Improvement
OFI-23-DE- AUTH-05	22^	DITT to establish the Independent Panel (NOEF) or use an alternative expert review in the interim to assess requirement for the NOEF seepage interception trench and recovery system.
OFI-23-DE- AUTH-06	27.d^	DITT to establish the independent panels (NOEF and TSF) so that consultation during the preparation of future management plans can occur.
OFI-23-DE- AUTH-07	27.g.i, 27.g.ii, 27.g.iii	DITT to request the Operator to update the WMP to include the requirements to: report results annually to DITT; require the Independent Monitor audit of the results every three years; and publish the results of the program on the Operator's website. Alternately, reword Conditions 27.g.i., ii. and iii. so that they refer to these activities as needed to be done but not necessarily for the plan to ensure they are done.
Independent	Tailings Review	Board, Tailings Storage Facility
OFI-23-DE- AUTH-078	50.c	DITT to liaise with the Operator with a standing agenda item on ITRB in the TWG regarding ITRB matters for example: • ITRB review of TSF construction documentation not occurring in timely manner
		OMS Manual not being updated and progressed from draft version for the Cell 1 stage 5 and Cell 2 Stage 7 raises or reviewed by ITRB
		 Design changes to the Cell 2 Stage 7 raise buttressing not being reviewed or endorsed by the ITRB.
Tailings Storage Facility		
OFI-23-DE- AUTH-09	80*	DITT to formally review and assess TSF Quarterly Reports received after November 2022 and advise the Operator in writing when reports are accepted.
OFI-23-DE- AUTH-10	80*	DITT to formally review and assess TSF Quarterly Reports in a more timely fashion.
OFI-23-DE- AUTH-11	80*	DITT to request that the Operator submit TSF quarterly reports in a more timely fashion.

Note:

- ^^ indicates OFI was carried over from 2021 AEPAR.
- ^ indicates OFI was carried over from 2022 AEPAR.
- * Indicates OFI was very similar to an OFI from 2022 AEPAR.

In circumstances where audit findings of importance related to a condition, but a part compliance and OFI were not deemed warranted, an observation was recorded. These observations may assist to maintain compliance or enhance performance and are included in the *Authorisation Compliance Workbook – DITT*, comments column, refer to Appendix C, preceded by the text, 'OBS'. Key observations are included below in Table 4-4..



Table 4-4: Authorisation – DITT Observations

OBS Ref.	Authorisation Condition No.	Observations
OBS-23-DE- AUTH-01	7	The implication of the change from quarterly to annual reporting of monitoring data is that, in any year, some data will be up to 18 months old by the time it is submitted for review with the EMR on 31 Aug the subsequent year. This will delay identification of potential issues and corrective action.
OBS-23-DE- AUTH-02	12	DITT may consider requesting drone data to allow comparison of the real data against the shapefiles of the approved extent of works used to calculate the security.
OBS-23-DE- AUTH-03	23.d.iii	DITT should update this condition to clarify that the requirement relates to trial results and monitoring outcomes that should be used to inform the AMP and closure planning
OBS-23-DE- AUTH-04	38.b	Delays in establishing the panels and therefore the Operator's ability to develop the environmental objectives for a Care and Maintenance Plan will delay implementation of approved measures to manage environmental risks.
OBS-23-DE- AUTH-05	41.b	DITT should consider changing the wording of this condition if reapproval of the qualified person to undertake the independent third-party assessment of the security is not required.
OBS-23-DE- AUTH-06	45.b and 45.c	The condition requires the AMP to be updated with inputs from CRG review, but does not clearly require the AMP to be updated based on inputs from the Independent Monitor review, consider rewording.
OBS-23-DE- AUTH-07	66	As construction of works to release water from WMD to Little Barney Creek is complete, DITT should consider marking this condition as complete.
OBS-23-DE- AUTH-08	76.d	DITT should consider marking this condition as complete given the TSF Seepage Interception Trench is fully operational.
OBS-23-DE- AUTH-09	80.d	DITT should consider if the TSF Recommendation, Instruction and Action Register should identify actions that are overdue (rather than calling them incomplete) and if ongoing actions beyond their due date are acceptable.
OBS-23-DE- AUTH-10	83	EMR 2021-2022 does not appear to include all characterisation data from exploration drilling since it includes data related to hydrogeological drilling characterisation only.
OBS-23-DE- AUTH-11	Schedule C - 28	DITT invoices require payment within a month rather than within seven days of receipt as stated in this condition; however, this longer timeframe appears acceptable and should be amended.
OBS-23-DE- AUTH-12	Schedule D – 6.b	This condition is an MMP requirement and therefore does not have a specified timeframe (e.g. 3 years) for review. Any material changes to the Waste Management Plan would need to be approved as required in condition D-7. However, this situation potentially allows the contents to be outdated with no trigger to review them.



4.2.4 Conclusions

DITT achieved a high level of compliance with the active Authorisation conditions at 96%. Opportunities for improvement which could be adopted include:

- Prepare an annual program/register of Operator deliverables and submissions to assist DITT to manage the adequacy review of submissions and timely request for additional information, if required
- Follow up on deliverables that have not been received (e.g. ITRB reports) or review documents (e.g. Management Plans) to provide timely feedback, and departmental approval where required, so that actions can be implemented in a timely manner by the Operator
- Follow up on the progressive submission of 'as constructed' reports to obtain certification that structures have been built in accordance with specified designs
- Establish Independent Panels (NOEF and TSF).

4.3 NT EPA Recommendations – DITT Compliance Audit

4.3.1 Scope and Approach

In accepting the NT EPA recommendations of Assessment Report 86, the then Minister for Primary Industries and Resources took responsibility for implementing the recommendations that apply under the authority of the MMA. The NT EPA recommendations adopted as Authorisation conditions became enforceable under the MMA.

DITT was assessed against the implementation of the NT EPA recommendations over the audit period using the quantitative audit approach and scoring criteria described in Section 2.2. There were 116 NT EPA recommendations and sub-parts considered relevant to DITT. DITT's task is to ensure that the intent of the NT EPA recommendations has been transferred to the Authorisation conditions.

The audit of DITT's compliance with the NT EPA recommendations was considered in two parts:

- the extent to which the intent of the NT EPA recommendations had been adopted in the wording of the Authorisation conditions
- the extent to which the intent of the NT EPA recommendations had been implemented.

4.3.2 Findings

A summary of findings is shown in Table 4-5. Table 4-5

Table 4-5: Summary of NT EPA Recommendations Implementation Compliance – DITT

Description	No.
Total number of recommendations (including sub-parts) relevant to DITT to incorporate into the Authorisation	117
Number of active recommendations (including sub-parts) relevant to DITT to incorporate into the Authorisation	116
Number of full compliances	105



Description	No.
Number of part compliances (high)	11
Overall compliance score for recommendations adopted into Authorisation	98%

Detailed audit findings, supporting evidence, part compliances and scores are contained in *NT EPA Recommendations Compliance Workbook – DITT* refer to Appendix D. Appendix D also references which Authorisation conditions correspond to the NT EPA recommendation and sub-part.

Of the 117 NT EPA recommendations very few have implementation requirements for DITT. Those that were relevant, generally involved the receipt and review of the Operator's monitoring programs, management plans and reports, and the establishment of the CRG and Independent Panels of experts. The majority of NT EPA recommendation requirements are implementation tasks for the Operator.

Only one NT EPA recommendation received a part compliance score because there was no reference to review of the revised WMP by the Independent Panel(s) and the Independent Monitor prior to approval by DITT.

DITT have achieved a significant reduction in the number of OFIs, from 9 in 2022 to just 1 in 2023. The majority of previous OFI requirements have now been addressed with their incorporation as tasks in the approved terms of reference for the TSF or NOEF Independent Panels.

4.3.3 Opportunities for Improvement

Potential opportunities to support continuous improvement identified by the Independent Monitor through the review and audit process are detailed in Table 4-6Table 4-6, noting these are not mandatory requirements.

Table 4-6: NT EPA Recommendations – DITT Opportunities for Improvement

OFI Ref.	NT EPA Recommendation No.	Opportunities for Improvement
OFI-23- DE-REC-01	27***	DITT to incorporate a mechanism for the revised monitoring program (assume Water Monitoring Program) to be reviewed by the Independent Panel(s) and Independent Monitor and then be approved by the relevant regulators, e.g. DITT.

Note: *** Indicates OFI was very similar to an OFI from 2020 AEPAR.

In circumstances where audit findings of importance related to a condition, but a part compliance and OFI were not deemed warranted, an observation was recorded. These observations may assist to maintain compliance or enhance performance and are included in the *Authorisation Compliance Workbook – DITT*, comments column, refer to F, preceded by the text, 'OBS'. Key observations are included below in Table 4-7. *Table 4-7*



Table 4-7: NT EPA Recommendations – DITT Observations

OBS Ref.	Authorisation Condition No.	Observations
OBS-23-DE- REC-01	8 cont.	The establishment of the Independent Panel(s) of experts has taken an unduly long time. Not having an Independent Panel in place is now impacting on the ability to fulfil Authorisation conditions where the Panel's involvement is a prerequisite.
OBS-23-DE- REC-02	9	Independent Panel not yet established and unable to review the report and provide an assessment on need and timing for NOEF Interception Trench. (Note: Independent Panel review is not an Authorisation requirement).
OBS-23-DE- REC-03	9	DITT response to Operator's NOEF Groundwater Seepage and Recovery System report submission is unduly slow and alternative expert advice could be sought rather than awaiting the establishment of the NOEF Independent Panel.
OBS-23-DE- REC-04	9 cont.	The establishment of the Independent Panel(s) of experts has taken an unduly long time. Not having an Independent Panel in place is now impacting on the ability to fulfil NOEF groundwater interception and recovery system Authorisation conditions where the panel's involvement is a prerequisite.
OBS-23-DE- REC-05	19.	DITT's response to Operator's submission of Updated Air Quality Management Plan (13 Nov 21) was unduly slow.
OBS-23-DE- REC-06	20.ii.	It may be of benefit to make publicly available the results of monitoring in relation to aquatic fauna obtained from the McArthur River, including at appropriate locations in the region, to communicate river health.
OBS-23-DE- REC-07	22	The establishment of the Independent Panel/s and Community Reference Group has taken an unduly long time and consultation on environmental objectives for a Care and Maintenance Plan with CRG prior to regulator approval has been delayed.
OBS-23-DE- REC-08	23.i.	Independent Panel TOR for the NOEF and TSF were approved 12 Dec 22, however TOR for Independent Panel for Closure are currently in draft, dated August 2022. It was advised the Independent Panel for Closure TOR was assessed as a lower priority due to later implementation.

4.3.4 Conclusions

Based on the documentation reviewed, the audit identified that DITT has effectively incorporated the NT EPA recommendations into the Authorisation conditions with an overall compliance score of 98%.



The audit process identified only one NT EPA recommendation OFI for DITT to require the Independent Panel(s) and Independent Monitor to review the WMP prior to DITT approval.

Eight of the NT EPA recommendation's part compliances OFIs that were identified in the 2022 AEPAR have since been addressed, with many reflected in the approved terms of reference for the Independent Panels for either the NOEF or TSF.

4.4 Regulatory Approach – DITT Review

4.4.1 Scope and Approach

A review of DITT's performance and regulatory approach was conducted by examining the following key regulatory activities:

- Compliance Tracking
- Environmental Monitoring Performance
- Compliance Support
- Technical Working Group
- Establishment of the Community Reference Group
- Establishment of the Independent Panel(s) of Experts.

Through interviews and assessment of relevant documents and samples of information, the review considered performance indicators (such as timeliness of actions completed, environmental risk profile and adequacy of response, environmental protection outcomes, follow up/close out of actions, achievements, and OFIs). Pre-prepared questions were used to provide structure and consistency around the review of DITT's regulatory activities. These focused the review on key environmental issues, environmental risk management processes, challenges and communication.

4.4.2 Findings

Compliance Tracking

During the audit period DITT continued to work on targeted improvements to the Authorisation Conditions. The improvement of selected Conditions provides clearer intent through clearer wording in the Authorisation which came into effect 17 May 2023.

In early 2022 DITT commenced development of a draft Compliance Tracking Register pilot project to assist, anticipate and track regulator actions in response to Authorisation requirements. The Compliance Tracking Register outlines the condition requirements including:

- · Due date, frequency
- Status (compliant, under assessment, pending)
- DITT role (review, approve, accept)
- · Other relevant agencies
- NT EPA recommendations reference and related conditions.

A noteworthy inclusion to the register is 'Condition update required' where potential amendments to improve clarity, remove obsolescence or simplify regulatory tasks can be captured for consideration in



a future Variation of Authorisation. Limited progress in the development of the compliance register has occurred in 2023 but the achievement of a comprehensive and effective compliance tracking register remains a valuable DITT objective.

DITT's development of the terms of reference for the Independent Panels for the NOEF and TSF have addressed residual NT EPA recommendations, not explicitly incorporated in the Authorisation conditions. This will assist tracking and actioning fulfilment of the finer details of the remaining NT EPA recommendations.

The Department advised that very few environmental incidents or notifications under Section 29 of the MMA occurred during the audit period. No enforcement notices were issued by DITT to the Operator during the audit period. This indicates there were no serious environmental incidents or breaches of Authorisation conditions identified or reported that triggered DITT regulatory enforcement action.

Environmental Monitoring Performance

Three site inspections were conducted by DITT officers in the audit period, with one of the visits a joint inspection with NT Department of Environment, Parks and Water Security (DEPWS) officers. None of the visits were in relation to compliance breaches or regulatory enforcement.

The number of days DITT officers spend on-site is a key performance indicator for DITT that is measured and tracked. Regular site inspections by DITT are beneficial as they allow first-hand observation and assessment of the Mine's condition to verify evidence of progress against the monitoring programs, reporting, Authorisation, AMP and EMR. DITT advised that given available resources, mine site visits, inspections and audits are conducted based on priority. Visits are prioritised based on relative risk considerations across all projects regulated under the MMA with the intention to visit high priority sites annually.

The Environmental Monitoring Unit (EMU) is part of DITT Mining Operations and conducts check monitoring at the request of assessment and compliance officers. The focus of the EMU field program is to obtain independent environmental data to validate whether operators' monitoring data is representative and reliable. The EMU conducted a groundwater check monitoring program in collaboration with the Mine in December 2022. This work has aided the development of an EMU comparative testing and monitoring report template for use at other mines. The EMU's previous visit to the Mine was 24 April 2018.

Compliance Support

The Mine's primary approval has been granted under the MMA and is administered by DITT. As the lead regulator DITT regularly provides compliance support to other agencies in the form of consultation with the NT EPA (EP Act) and NT DEPWS (WDL under the Water Act).

Some historic Authorisation Conditions are written in a manner that is ambiguous and does not match the Condition's intent. DITT have adopted a pragmatic approach to working with the Operator to seek agreement on what is acceptable to fulfil condition requirements.

Technical Working Group

The Technical Working Group (TWG) is a forum that meets regularly, (typically fortnightly), for DITT and the Operator to discuss regulatory matters, review project progress, consider and proactively resolve potential concerns and plan upcoming environmental management programs or activities. The



Independent Monitor views the TWG as a valuable regular communication opportunity to facilitate review of environmental issues and to enhance environmental performance at the Mine, through fostering and maintaining an effective working relationship. The TWG enables emerging issues to be addressed in a timely manner rather than waiting for quarterly or annual reporting of monitoring results.

Community Reference Group

DITT is responsible for the establishment and operation of a CRG, with the support of the Operator. The CRG's primary purpose is to communicate the McArthur River Mine's performance to the local and broader NT community.

A call for CRG members expressions of interest closed 31 October 2022, The independent Chairperson was appointed by the Minister for Mining and Industry in March 2023. The Independent Chairperson subsequently nominated individuals in May 2023, with members appointed by the Minister in June 2023 – outside audit period

Independent Panel(s) of Experts

DITT, with the support of the Operator, is to establish and operate an Independent Panel of Experts to advise on the NOEF, TSF and mine closure planning. Independent panels are to provide oversight and review of key technical issues culminating in reporting to DITT and the Operator at three-yearly intervals. DITT is then responsible for coordinating distribution to relevant government agencies, any reviews by the Independent Monitor and the publication of the Independent Panel reports on the DITT website.

Terms of reference for the Independent Panels were developed in consultation with the operator and the DEPWS and have been approved by the Minister for Climate Change, Environment and Water Security and endorsed by the Northern Territory Environment Protection Authority. The terms of reference were approved on 12 December 2022 and have been published on DITT website.

None of the Independent Panels have yet been established. It is anticipated the Independent Panels for the NOEF and TSF will commence in 2024 and the Closure Panel will be established later.

Authorisation conditions for independent review of some of the Operator's monitoring programs and associated reporting are not triggered (and are constrained from commencing) until the establishment of the Independent Panel(s). The Authorisation does not stipulate any timeframes for the establishment of the Independent Panel(s).

4.4.3 Opportunities for Improvement

Potential opportunities to support continuous improvement identified by the Independent Monitor through the review process are detailed in Table 4-8Table 4-8, which applies to the regulatory approach, noting these are not mandatory requirements.

Table 4-8: DITT's Regulatory Approach Opportunities for Improvement

OFI Ref.	Opportunities for Improvement
OFI-23-DE- REG-01^^	DITT to prioritise the establishment of the Independent Panel of Experts for TSF and NOEF to facilitate independent reviews of the Operator's monitoring program and reporting.



OFI Ref.	Opportunities for Improvement
OFI-23-DE- REG-02^^	DITT to facilitate an internal review to examine the annual EMR process, tasks and outputs with a view to streamline the activity. As part of this review, examine what is sufficient for regulatory requirements and responding to community expectations, as well as how the annual process could be more efficient.
OFI-23-DE- REG-03^	DITT to prepare an internal procedure for the regulation of the Authorisation conditions and NT EPA recommendations to document the processes, timing, due dates, overdue submissions, approvals, decisions, public /community communication and records requirements to assist managing the complex regulatory requirements relating to DITT activities.
OFI-23-DE- REG-04^	DITT to reduce reliance on key individuals within DITT to ensure consistency and continuity of compliance and performance.

Note: ^ indicates OFI carried over from 2020 regulatory approach DITT review.

^^ indicates OFI carried over from 2020, 2021 and 2022 regulatory approach review.

4.4.4 DITT Successes

The audit and review process identified some noteworthy successes achieved by DITT during the audit period which exceeded the regulatory compliance requirements and have contributed to continuous improvement (refer to Table 4-9Table 4-9).

Table 4-9: DITT's Regulatory Activities Successes

No.	DITT Success
1	The Authorisation Conditions have remained relatively stable since a major overhaul in November 2020. This enables greater efficiency in demonstrating compliance. It also permits both the Regulator and Operator more time to focus on ensuring environmental performance against the key environmental objectives.
2	Minor targeted revisions to Authorisation Conditions in 2022/2023 have improved the clarity of some conditions. Reduced ambiguity, more consistency in the use of language and some firm timeframes have contributed to improve the effectiveness of the Authorisation. A history of the Authorisation revisions, with dates, has also been added to provide details and context of past amendments.
3	A call for CRG members expressions of interest closed 31 October 2022, The CRG's Independent Chairperson was appointed by the Minister for Mining and Industry in March 2023. The Independent Chairperson subsequently recommended individual members in May 2023, with members appointed by the Minister in June 2023 – outside audit period



No.	DITT Success
4	The terms of reference for the expert Independent Panels for the NOEF and TSF were developed in consultation with DEPWS and the Operator and were approved by the Minister for Mining and Industry on 12 December 2022. A call for expressions of interest for the identification of potential Panel members occurred outside the audit period.
5	The DITT's Environmental Monitoring Unit (EMU) conducted a groundwater check monitoring program at the Mine in December 2022. EMU provided formal check monitoring in collaboration with the Mine's groundwater monitoring program to produce a report in February 2022. This work has aided the development of an EMU comparative testing and monitoring template for use at other mine projects.
6	Regular communication between DITT and MRM, including the TWG forum, which continues to support an effective and valuable working relationship that facilitates early resolution of potential regulatory issues.
7	The continued strong focus on key environmental areas that could be high risk if adequate risk controls were not in place (e.g., high number of conditions on NOEF and TSF), and a practical approach to compliance and monitoring.
8	The continued improved environmental performance and high levels of regulatory compliance by the Operator can be attributed, at least in part, to the processes and approach developed and adopted by DITT for the Mine.

4.4.5 Conclusions

A review of DITT's performance in regulatory procedures and regulatory approach was conducted in 2023 by examining a selection of key regulatory activities that were, for the most part, similar to those reviewed in the previous AEPAR.

DITT achieved progress on the CRG establishment with the Independent Chairperson appointed by the Minister in March 2023.

In the most recent Authorisation, some selected Conditions have been revised to improve clarity to reduce ambiguity around the intent and compliance obligations e.g. ICE certifying and 'as constructed' reporting requirements.

The review reiterated previous findings for opportunities to streamline activities, especially those recurring regulatory processes. The potential benefit of streamlining some of DITT's documentation and approval processes would be efficiency gains.



5 Review of River System Health

5.1 Objective

The objectives of the review of river system health were to:

- Assess relevant freshwater aquatic ecology monitoring programs and management actions developed by the Operator to meet the Authorisation conditions
- Provide an assessment of the monitoring program and general river system health, based on documentation provided by the Operator.

5.2 Scope and Approach

The scope of this review included reviewing the freshwater aquatic ecology-related environmental assessments and monitoring activities undertaken during the audit period, by the Operator and subcontractors engaged by the Operator. An assessment was undertaken of the McArthur River health monitoring program that covers a large, but defined area, in the vicinity and downstream of the Mine. The monitoring program and this review does not provide information on the larger catchment area.

The river health and freshwater aquatic ecology assessment was undertaken by Independent Monitor sub-consultant, Freshwater Ecology Pty Ltd, and included:

- Reviewing the conditions of Authorisation relevant to the freshwater aguatic ecology assessment
- Reviewing monitoring programs and management actions developed to meet the Authorisation conditions and environmental objectives stated in the approved MMP
- Assessing the Operator's implementation of management and monitoring programs during the audit period including conclusions drawn
- Undertaking a general assessment of the health of the McArthur River system in the vicinity and downstream of the Mine based on the information provided by the Operator.

This review focused on the monitoring report documentation provided by the Operator for the audit period in consideration of the Authorisation conditions' requirements, the MMP and Appendices (specifically the management plans). Documents dated prior to 2018 were not reviewed, except for the Freshwater Sawfish Management and Monitoring Plan.

5.3 Findings

5.3.1 Context

The significance of river health is reflected in the overarching environmental management objectives for the Mine, as set out in the MMP, which includes:

- Objective 1: Protect the McArthur River's beneficial uses and community values from mining impacts
- Objective 2: Facilitate development of the ecosystems and their functions along the McArthur River Diversion Channel for terrestrial and aquatic flora and fauna.



Management actions and monitoring programs for freshwater aquatic ecology relevant to these objectives are discussed below, followed by a description of the efficacy of these actions and programs in addressing the objectives. A summary discussion of river system health is subsequently provided.

5.3.2 Management Actions

As set out in the MMP, the Operator undertakes various activities as part of the management of potential mining impacts on freshwater aquatic ecology and for protection of river health, including:

- Implementation of design and operational controls
- · Application of adaptive management
- Rehabilitation.

Design and Operational Controls

Design and operational controls relevant to the management of impacts to freshwater aquatic ecology and protection of river health include:

- A water management system to prevent contaminated water from entering the river system
- Dust emission controls to prevent contamination of waterways
- Stipulated conditions under which good quality water, following storage and treatment, may be
 released into the surrounding waterways and not impact the environmental values (as detailed in
 the WDL)
- Detailed design for the NOEF, which includes various quality control checks, including the requirement for independent oversight by the ICE
- Detailed design for the TSF, which includes various quality control checks including the requirement for independent oversight by the ICE and ITRB
- Seepage-capture ponds and sumps to prevent contaminated seepage from entering waterways
- Routine inspections and monitoring of infrastructure.

Adaptive Management

A central component of the Operator's Environmental Management Framework is the AMP, a document that facilitates management and decision-making over time, in response to evolving knowledge, environmental performance, and changing circumstances. TARPs are implemented by the Operator as part of the AMP to manage potential adverse environmental conditions, mitigate environmental impacts, inform mitigation options where required, and to assess performance against overarching environmental objectives.

The TARP structure consists of three levels which each have specific triggers, actions and responses. Level 1 is when a trigger value suggests the performance is achieving its environmental objective, and Level 2 is when a performance indicator is above the Level 1 trigger value (indicating that performance is within expected, predicted and/or conditional levels) and the environmental objective is still being met; however, further investigation of the trend is warranted. Level 3 is when a performance indicator is above the Level 2 trigger value (indicating that performance is outside expected, predicated and/or conditioned levels) and further investigation is needed to determine if additional controls are required to continue to meet environmental objectives. For Level 1, TARPs monitoring, and management



continue as per the MMP, whereas for Levels 2 and 3, TARPs additional monitoring and mitigation controls are required.

TARPs relevant to the management of impacts to freshwater aquatic ecology and protection of river health include:

- Presence of freshwater sawfish and migratory species diversity
- Macroinvertebrate species richness/assemblage
- Aquatic fauna species diversity and relative abundance
- Metal concentrations in aquatic fauna
- Progress of revegetation along the McArthur River Diversion Channel.

Ongoing management actions are undertaken by the Operator as part of adaptive management to support achievement of the overarching environmental management objectives. Relevant to the assessment of river health during the audit period is the Operator's removal of potentially contaminated sediments from a tributary to McArthur River (i.e., Barney Creek channel) within the mineral lease boundary.

Rehabilitation

The Rehabilitation Management Plan (RMP), prepared by the Operator, details a rehabilitation management and monitoring system that enables the progress of rehabilitation towards closure objectives. The key rehabilitation activities relevant for freshwater aquatic ecology are:

- Revegetation along the McArthur River and Barney Creek diversion channels
- The introduction of instream woody debris along the McArthur River Diversion Channel.

Revegetation of the diversion channels has been ongoing since 2007. The key objectives of revegetation are to:

- Increase bank stability
- Provide shading within the river channel
- Provide a source of carbon for freshwater aquatic ecosystems
- Provide a long-term source of instream woody debris.

To date, the focus has been on replanting the upper sections of the diversion channels in accordance with the schedule in the RMP.

Installation of Large Woody Debris (LWD) in the diversion channels has been undertaken since 2010, with the key objectives of LWD introduction being to:

- Increase meso and microhabitat diversity within the channel
- Alleviate bank erosion
- Provide a source of carbon for freshwater aquatic ecosystems
- Provide refuge holes for migrating fish.



To supplement the LWD program, small and medium-sized woody debris has been added to the McArthur River Diversion Channel. The aim of this is to provide additional organic matter to the channel to improve macroinvertebrate assemblages.

5.3.3 Freshwater Ecology Monitoring Programs

The Operator undertakes several freshwater ecology monitoring programs to support assessment of the efficacy of management actions and associated outcomes relevant to the overarching environmental management objectives, including:

- Freshwater macroinvertebrate monitoring
- Freshwater aquatic fauna diversity and abundance
- Freshwater sawfish and barramundi acoustic monitoring
- Metals in freshwater aquatic fauna.

During the reporting period the monitoring programs were conducted in full for the second time since COVID-19 restrictions commenced in early 2020. The only exception was for the Robinson River upstream site as access is still restricted. This site is used as a reference and an alternative site on the Wearyan River (previously used as a reference prior to 2015) was used.

5.3.4 Environmental Management Objectives

For each of the overarching environmental management objectives for the Mine (described below), consideration is given to the relevant management actions and monitoring programs.

Objective 1. Protect the McArthur River beneficial uses and community values from mining impacts

The current monitoring programs are considered suitable and sufficiently well-designed to assess potential impacts on the McArthur River freshwater ecosystems and beneficial uses. AEPAR Appendix E, Table E-1 provides a summary of the applicability of each monitoring program relevant to this objective that was undertaken during the audit period and the key conclusions drawn.

For each of the monitoring programs, the 2023 EMR assesses compliance against the relevant performance triggers. The performance indicators and SSTVs provide clear direction and actions to mitigate potential impacts when, and if, they occur. Level 1 performance was achieved for all freshwater aquatic ecology monitoring categories relevant to this objective.

It is notable that, with respect to waterway sediment samples, several sites were identified at trigger level 2a⁶; namely sites within Barney Creek and Surprise Creek. One waterway sediment sample site within Barney Creek was considered to be at trigger level 2b. These results were comparable with the 2021-2022 audit period. There is a relationship between waterway sediment metal concentrations and tissue metal concentrations in fauna, albeit the ephemeral nature of Barney Creek and Surprise Creek is likely to reduce the exposure of aquatic fauna to periods in which water persists. The higher analyte levels recorded during the audit period may be reasonably attributed to the poor wet season and

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⁶ The TARP for fluvial sediment has two stages at level 2; 2a which requires an investigation to determine if additional controls or management actions can be taken to reduce analyte concentrations, and 2b requires both the same investigation as well as sampling frequency to be increased from annually to quarterly.



limited flushing of these systems in 2021/2022 contributing to the accumulation of enriched sediment over the sampling period. This will need to be supported by data in subsequent sampling events to determine whether further management actions are required.

The Independent Monitor agrees with the conclusions of the Operator's external expert's assessment that the adaptive management action undertaken, to remove potentially contaminated sediments from a tributary to McArthur River (i.e., Barney Creek channel) and the construction of silt traps to capture runoff, have contributed to protecting downstream beneficial uses and environmental values. Results of sediment analysis show reductions in cadmium, arsenic, lead, and zinc concentrations, compared with those recorded in 2018, with cadmium and arsenic no longer in exceedance of the relevant sediment quality guideline value.

Small numbers of the freshwater mussel, *Velesunio angasi*, were collected due to their limited abundance in the environment. Tissue metal concentrations were highly variable across the study area but consistent with results of previous sampling, where very high concentrations of naturally occurring analytes, including aluminum, manganese, iron, and total arsenic have been consistently recorded in this species throughout the region, including for catchments outside of the Mine's area of operations.

Analysis of metals in aquatic fauna (fish species) during the audit period showed there were no exceedances of Maximum Permitted Concentrations (Australia New Zealand Food Standards Code, Standard 1.4.1, Schedule 19) in tissue concentrations. Reductions in tissue metal concentrations since 2018 appear to be attributable to the management actions (described in Section 5.3.2) taken to remove potentially contaminated sediments from the Barney Creek channel.

Data collected over the 2022-2023 monitoring program demonstrated that all other fish caught throughout the McArthur River catchment were considered safe to consume. This includes commonly consumed species such as *Lates calcarifer* (barramundi) and *Hephaestus fuliginosus* (sooty grunter).

Objective 2. Facilitate development of the ecosystems and their functions along the McArthur River Diversion Channel for terrestrial and aquatic flora and fauna

The current monitoring programs are considered by the Independent Monitor to be suitable and sufficiently well-designed to monitor the development of ecosystems and their functions along the McArthur River Diversion Channel.

The management actions to revegetate the stream banks and to introduce instream LWD are appropriate for facilitating the development of the ecosystems and their functions along the McArthur River Diversion Channel. While the McArthur River Diversion Channel appears to offer a lower level of quality aquatic habitat in edge habitats than the natural river channel, there appears to be a trajectory of increasing ecosystem diversity and resilience. Results for macroinvertebrate sampling in the 2022-2023 period showing a deviation from this trend can reasonably be attributed to the low flows during this sampling period having created a physical separation between the edge habitats from riparian buffer zones; however, this assertion should be demonstrated in future sampling.

AEPAR Appendix E Table E-2 provides a summary of the applicability of each monitoring program (relevant to this objective) that was undertaken during the audit period and the key conclusions drawn.

For each of the monitoring programs, the 2023 EMR assesses compliance against the relevant performance triggers. The performance indicators and trigger values provide clear direction and actions to mitigate potential impacts when and if they occur. Level 1 performance was achieved for all freshwater aguatic ecology monitoring categories of Diversity and Abundance of Aguatic Fauna and



Diversity and Abundance of Freshwater Macroinvertebrates. A metals in aquatic fauna TARP Level 2a was recorded for one Freshwater Mussel sample collected within a fenced area of Surprise Creek and all other aquatic fauna samples remained at TARP level 1. A metals in waterway (fluvial) sediment TARP level 3 investigation was triggered for a monitoring site in Barney Creek.

The management action to revegetate banks along the diversion channels is providing short-term benefits in the form of bank stabilisation, and long-term benefits through providing organic input, increased shading, and a natural source of instream woody debris recruitment. The Independent Monitor agrees that the development of a functional riparian vegetation community will facilitate the development of the ecosystems along the diversion channels.

The management action, which introduced instream woody debris, is providing a short to medium term benefit of providing habitat, increasing mesohabitat and habitat diversity, and provides organic input for aquatic ecosystems. The Independent Monitor agrees with the results of the Operator's external expert's assessment, that the introduction of instream woody debris is most likely contributing to increased macroinvertebrate assemblage development and resilience.

While the objectives of the monitoring programs have been met (i.e., assessing responses of *Macrobrachium* species and fish assemblages, and the effectiveness of adding woody debris), it would be useful to assess and quantify the extent of rehabilitation along the entire McArthur River Diversion Channel. Such an assessment would provide an indication of the reach scale trajectory of rehabilitation for fish habitat. A reach-scale assessment may be undertaken at a coarse level and provide a measure of the success of the riparian revegetation combined with introduced woody debris over time.

The Largetooth Sawfish (*Pristis pristis*) is a species listed as Vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999* and the focus of an acoustic monitoring program in the McArthur River Diversion Channel. The recording of five individuals passing through the Diversion Channel since 2017 supports the assertion that fish passage for this species is not impaired and exceeds the minimum requirement of demonstrating passage of sawfish through the McArthur River Diversion Channel once every five years.

5.3.5 River System Health

The Operator has classified the condition of the McArthur River within the Mine area as a slightly to moderately-disturbed ecosystem, in accordance with Australian and New Zealand guidelines for fresh and marine water quality (2018). Slightly to moderately-disturbed systems (95% biodiversity protection) are ecosystems in which aquatic biological diversity may have been slightly adversely affected by human activity; however, biological communities remain in a healthy condition and ecosystem integrity is largely retained.

Overall, the monitoring results obtained from the Operator indicate the aquatic ecosystems of the McArthur River and its tributaries are in good condition. The notable exceptions are related to creeks within the mining lease adjacent to the NOEF and TSF i.e., Barney Creek and Surprise Creek with limited exceedances of metals in some sediment samples. These watercourses are highly ephemeral and retain little water for much of the year. As described above, analysis of metals in aquatic fauna (fish species) during the audit period showed no exceedances of Maximum Permitted Concentrations (Australia New Zealand Food Standards Code, Standard 1.4.1, Schedule 19) in tissue concentrations and only one exceedance in Barney Creek for a mussel sample.



Data collected over the 2022-2023 monitoring program demonstrated that all other fish caught throughout the McArthur River catchment, including commonly consumed species such as barramundi and sooty grunter, were safe to consume. The review of monitoring data to date indicates there is an extremely low risk to human health from consuming the monitored fish species caught in the McArthur River catchment in the vicinity or immediately downstream of the mineral lease.

Consistent with previous sampling results, concentrations of metal in freshwater mussel tissue were highly variable and commonly included high concentrations of naturally occurring analytes, including aluminum, manganese, iron, and total arsenic, across the area monitored; this includes catchments not affected by the Mine. It is considered unlikely that enough mussels could be collected and consumed by an individual to exceed an intake of metals that would have a detrimental health effect; however, due to the high levels of metals found naturally in the mussels in the region, it is suggested that their consumption be limited.

The McArthur River Diversion Channel was constructed over the 2008-2009 wet season to enable the Mine's transition from an underground to an open pit operation. While it does not provide the same habitat as naturally formed river channels, there have been significant and ongoing efforts to reinstate habitat conditions typical of natural river channels. This is primarily development of the riparian vegetation and the introduction of instream woody debris. The monitoring data collected to date suggests these actions have improved and are likely to continue to improve the aquatic habitat along the McArthur River Diversion Channel.

The current monitoring programs have been undertaken for several years and it is apparent the preceding wet season is a significant driver on aquatic ecosystems, primarily through recruitment of key species and connectivity of the system to allow upstream passage of estuarine/marine dependent species. Graphical representation of the influence of magnitude and duration of the preceding wet season on sampling results may provide a useful background against which drivers in abundance may be considered. Such a graphical representation may support improved understanding of deviations from expected natural variability along with communication regarding these matters.

5.4 Opportunities for Improvement

Potential opportunities to support continuous improvement identified for river system health through the review and audit process are detailed in Table 5-1, noting these are not mandatory requirements.

Table 5-1: River Health System Opportunities for Improvement

OFI Ref.	Monitoring Program / Management Action	Opportunities for Improvement
OFI-23-OP- RH-01^	Freshwater Macroinvertebrate Monitoring	The Operator should adopt the conclusions of the Operator's external experts that it is preferable to increase the number of reference sites along the McArthur River rather than in adjacent catchments.
OFI-23-OP- RH-02^	Freshwater Macroinvertebrate Monitoring	The Operator should increase the number of downstream reference sites with riffle microhabitat in future sampling as planned.



OFI Ref.	Monitoring Program / Management Action	Opportunities for Improvement
OFI-23-OP- RH-03^	Diversity and Abundance of Freshwater Aquatic Fauna	The Operator should maintain longer term data collection for comparison of annual aquatic fauna program to better understand longer-term trends and influences of inter-year variability in-flow on aquatic fauna community development and resilience in the McArthur River Diversion Channel.
OFI-23-OP- RH-04^	Freshwater Sawfish and Barramundi Acoustic Monitoring	The Operator should increase the number of tagged fish to replace the fish for which batteries in the tag are reaching their expiry dates.
OFI-23-OP- RH-05^	Aquatic Fauna – Metals	The Operator should determine if inclusion of tissue metal concentration sampling at the remote Batten Point (McArthur River estuary) location would be beneficial to the monitoring program and/or enhance the relevance of the monitoring program to the local community.
OFI-23-OP- RH-06 ⁺	Diversity and Abundance of Freshwater Aquatic Fauna	The Operator should undertake a reach-scale assessment to measure the extent of rehabilitation along the entire McArthur River Diversion Channel and provide an indication of the reach scale trajectory of rehabilitation for fish habitat. This may be undertaken at a coarse level and provide a measure of riparian revegetation success combined with introduced woody debris over time.
OFI-23-OP- RH-07	All freshwater aquatic ecology monitoring programs	The Operator should develop time series graphical representation of wet season magnitude and extent against key metrices influenced by flow and pertinent to the AMP objectives.

Note: ^ indicates OFI carried over or replicated from 2021 and 2022 AEPAR, + indicates OFI carried over or replicated from 2022 AEPAR.

5.5 Conclusions

The Operator has a broad range of aquatic ecosystem monitoring programs and management actions that have been developed over the Mine's life to meet the environmental objectives. During the audit period, these were well-implemented and where impacts were noted, they were adequately described, and mitigation actions recommended. The review supports the continuation of the current aquatic ecology monitoring programs as these activities are appropriate and effective to achieve the river system health objectives.

Overall, the McArthur River and its tributaries are considered to be in good health with an exception noted immediately adjacent and proximal to the Mine's operational areas. These localised issues are associated with some elevated levels of metals in Barney Creek and Surprise Creek immediately adjacent to mining activities and within the mineral lease boundary. These will require ongoing monitoring and management.

The management actions undertaken to remove potentially contaminated sediments from Barney Creek channel have contributed to protecting downstream beneficial uses and environmental values. Results of sediment analysis show reductions in metals concentrations compared with those recorded



in 2018, with cadmium and arsenic no longer in exceedance of the relevant sediment quality guideline value.

Consistent with previous sampling results, concentrations of metal in freshwater mussel tissue were highly variable and commonly included high concentrations of naturally occurring analytes across the area monitored which includes catchments not affected by the Mine. It is considered unlikely that enough mussels could be collected and consumed by an individual to exceed an intake of metals that would have a detrimental health effect; however, it is suggested that their consumption be limited.

Data collected over the 2022-2023 monitoring program demonstrates that fish caught outside of the mineral lease boundary and throughout the McArthur River catchment, including barramundi and sooty grunter, are safe to consume. The review of monitoring data to-date indicates there is an extremely low risk from consuming fish caught in the McArthur River catchment in the vicinity or immediately downstream of the mineral lease boundary.

Monitoring of the McArthur River Diversion Channel suggests that the management actions to vegetate the riparian zone and introduce instream woody debris are facilitating the development of the ecosystems and their functions.



6 Review of Air Quality Management

6.1 Objective

In this audit period review of the environmental performance of the Operator included conducting an audit of air quality management. The objective of the audit was to assess the adequacy of the air quality management and monitoring by reviewing the following:

- the adequacy of the Air Quality Management Plan (AQMP)
- the air quality monitoring program.

6.2 Scope and Approach

The Mine's AQMP and the annual EMR detail the air quality obligations and performance of the Mine.

The Independent Monitor's approach to the audit was to review the Mine's AQMP, Version dated 01 October 2021 and the EMR's specialist Ambient Air Monitoring Report, dated 28 July 2022. Additionally, a site visit audit was conducted on 29 -30 March 2023 and the audit tasks conducted were:

- Interview the Mine's Superintendent, Environment
- Interview the Mine's Senior Environmental Advisor
- Review the implementation of the AQMP.

The scope of this air quality management audit focussed on the Mine's sulphur dioxide (SO_2) emissions and particulate matter (dust) emissions and how these are controlled and monitored. The Authorisation is the Mine's principal regulatory approval to operate and includes conditions that stipulate the air quality requirements the AQMP must address. The primary Authorisation conditions relevant to air quality are Conditions 7, 33, 34 and 35, refer to Section 3.2 for the Independent Monitor's compliance audit findings relevant to the Authorisation. The audit did not include air quality management at the BBLF or air quality occupation health and safety for workers.

Background

The Mine's overburden may contain sulphide minerals which can oxidise. Some sulphide and carbon rich rock materials have a propensity to self-heat due to rapid oxidation. This heating process of spontaneous combustion is characterised by high temperature and SO_2 emissions. SO_2 emissions as a result of spontaneous combustion can potentially affect air quality and potentially impact community health.

The main sources of particulate matter (dust) air emissions for the Mine include:

- Hauling of material along unsealed roads
- Processing and handling of Ron of Mine (ROM)
- Wind erosion from exposed areas
- Loading and unloading of materials.



6.3 Findings

The key findings in relation to the air quality management audit are outlined below. The detailed audit findings and identified opportunities for improvement are provided in a separate Independent Monitor report.

No exceedances of NEPM guideline for hourly SO_2 concentrations occurred during the audit period. In recent years improved management of the NOEF (e.g. dedicated Potentially Acid Forming (Reactive) cells, alluvium, permeability barriers, installation of geosynthetic bituminous membrane liner cover) has reduced the SO_2 emissions generated from the NOEF. The enhanced management of the NOEF has vastly reduced SO_2 emissions historically associated with some obsolete waste rock handling practices. This improvement air quality management performance is supported by the real time continuous SO_2 monitor results.

Analysis of the dust deposition monitoring network data found that dust concentrations due to the mining activities would likely not be discernible from background concentrations at Borroloola (65km by road) and Goolminyini (38km by road) due to the distance from the Mine.

An initiative by the Mine to improve dust management is binder trials, where an additive is used in water carts for dust suppression on haul roads. To assess the effectiveness of the binder trials a network of additional real time 'DustTrak' dust monitoring equipment has been temporarily deployed on-site to establish background dust levels. The Independent Monitor witnessed a real time dust monitoring unit installed adjacent to the Barney Creek Haul Bridge. The trial of binder additives to water carts for dust suppression is due to occur in 2024.

The audit has found the implementation of the AQMP including the air monitoring program is sufficient to minimise the risks of potential air emissions related impacts at the Mine and surrounding areas.



7 Review of Surface Water Management

7.1 Objective

In this audit period review of the environmental performance of the Operator included conducting an audit of the surface water management. The objective of the surface water audit was to assess the adequacy of the Surface Water Monitoring Program and the operational water management activities, including:

- Review the adequacy of the Surface Water Monitoring Program and fieldwork practices
- Assess the Mine's operational water management practices including water classification, storage, inventory, treatment and managed release.

7.2 Scope and Approach

The Mine's AMP, WMP and annual EMR detail the obligations and report performance in relation to surface water management.

The Independent Monitor's approach to the audit was to review the Mine's WMP, Version 2.0, dated 13 May 2022 and Surface Water Monitoring Annual Report 2021-22, dated 30 August 2022. Additionally, a site visit audit was conducted on 31 May – 01 June 2023 and the specific surface water management audit tasks were:

- Interview the Mine's Superintendent Environment
- Interview the Mine's Superintendent Site Water Management
- Review the implementation of the Surface Water Monitoring Program
- Observe and review the surface water monitoring fieldwork practices
- Observe and assess the implementation of the operational water management practices.

The scope of this surface water management audit focused on the Mine's artificial surface water management which includes the Mine's designated water storge facilities such as dams, ponds, sumps and sediment traps. This scope did not include the Natural Surface Water Program which encompasses the monitoring and management for the McArthur River and its tributaries. The Mine's regulatory requirements in relation to surface water management are covered in the Authorisation and WDL. The Surface Water Monitoring Program results, performance and trends for the artificial surface water management are presented annually in the EMP. Refer to Sections 3.2 and 3.3 for the Independent Monitor's compliance audit findings for the Authorisation and WDL, respectively.

Background

Water management at the Mine requires flexibility to manage water during the pronounced wet and dry seasons as well as rainfall variation from year to year. Since 2015/2016 the Mine has operated a water classification system with six water classes based on water quality. The water classes range from Class 1 water – clean diverted water, i.e., clean diverted rainfall runoff not affected by the Mine's activities through to Class 6 water – process water i.e., water used in the Concentrator and TSF, or brine from the reverse osmosis water treatment plant. The network of artificial water storage network of 42 dams, ponds and sumps are managed to separate different water classes to avoid unnecessary mixing



to minimise the volume of poor-quality water and maximise reuse opportunities for cleaner water classes.

7.3 Findings

The key findings in relation to the surface water management audit are outlined below. The detailed audit findings and identified opportunities for improvement are provided in a separate Independent Monitor report.

The WMP is particularly comprehensive, sophisticated and mature. The plan brings together the surface water management components in a clear and integrated manner, including:

- Obligations and regulatory requirements
- Water classification system
- Water balance model
- Individual water storage identification, descriptions, and tarps
- Artificial surface water monitoring programs
- Surface water quality analyte monitoring suites and performance triggers
- Annual surface water monitoring reporting.

The Surface Water Monitoring program is conducted by the environment team at approximately 50 routine monitoring sites in accordance with a comprehensive environmental monitoring schedule. The Independent Monitor witnessed in-field water sampling practices by suitably trained and experienced personnel in accordance the detailed Artificial Surface Water Monitoring Procedure, PRO-2200025. The field team were observed utilising a field sheet sign-off as part of the water sample chain of custody process.

The Mine's lead oxide (PbOx) water inventory volume and associated hazardous dam risks will continue to increase until the gypsum water treatment process is operational. Prioritising the completion of the construction of the gypsum water treatment plant and its successful commissioning is fundamental to the Mine's ability to treat PbOx produced by the lead concentration process and deal with the stored PbOx water backlog.

The Mill Concentrator Runoff Pond (CRP) and the Mill Anti-Pollution Pond (APP) collect concentrate rich sediment in runoff from the mill, some of which is dredged and returned to the mill for reprocessing. The ponds are adjoining and in a location next to Barney Creek where uncontrolled release or overtopping may potentially flow to Barney Creek. The CRP and APP have a compacted clay liner and are managed by the Mill Distribution Control System not the Site Water Management System. At the time of inspection, both ponds contained sediments that are likely to have a high concentration of metals and the ponds appear to have been in operation for many years. A review of the CRP and APP design, construction and operational management would be prudent to confirm that these Class 6 (process water) water storages meet the requirements of ANCOLD and an AEP for uncontrolled off-site releases of less than 1%.

The Authorisation specifies a list of 30 artificial water storages where the Mine is authorised to direct AMD water. The majority of these storages have either CCL or High Density Polyethylene liners to prevent uncontrolled discharge through seepage. However, some storages are described as having no liner or the liner status is listed as 'To Be Confirmed'. A review of the status and suitability of type of



liners for the authorised AMD storages based upon potential environmental risk would be valuable to confirm if there is any need for liners to be installed or upgraded.

The SCADA system monitors the flows and volumes of the pipeline network that interconnect surface water storage by pumping between dams, ponds, sumps and basins. It may be worth considering a review of the current SCADA system to develop a business case for an upgrade of the system to include real time alarms and automatic messages to be able to be raised in the event the system detects a potential issue or incident.

The flood warning system is valuable as it affords the Mine with approximately 12 to 15 hours advance notice to prepare for the arrival of floodwaters. The 'EaglelO' system is used to provide flood forecasting for the Mine site. An automatic flood gauge is located upriver and provides early warning of an approaching floodwater and ongoing four hour alerts. However, the equipment relies on solar panel powered batteries which are unlikely to continue to work during extended periods of cloud cover, such as those experienced during long duration rainfall events in the monsoon season. Alternate power supply, such as lithium ion batteries can provide significant extension of battery life, providing power to the flood warning system for several days.

Overall, the surface water management system is dynamic, resilient and provides operational flexibility. The WMP is extremely comprehensive and establishes the Mine's surface water management system for water quality requirements, water balance modelling and a monitoring program. The surface water monitoring schedule is also comprehensive and field practices were observed being implemented in accordance with industry best practice. The accumulation of PbOx water in surface water storage dams, in particular EPROD, is the largest potential surface water risk and requires focused attention. The gypsum water treatment plant schedule for construction completion in 2024 is being built specifically to provide the ability to treat PbOx water.

The water management system avoids uncontrolled discharge from dams overtopping and manages the treatment and transfer between storage of different classes of water to maintain the Mine's water balance. The WDL stipulates operational and monitoring performance criteria to ensure that water from the Mine will not impact upon the values of the McArthur River. The Mine has a documented managed release process and although there were no water releases in the 2022/2023 reporting period.

The audit has found the surface water operational management and the monitoring programs combine well to support the overarching environmental objective to protect the McArthur River from Mine-related impacts.



8 Independent Certifying Engineer Review

8.1 Objective

In this audit period review of the environmental performance of the Operator included conducting an audit of the ICE. The objective of the ICE audit was to assess the adequacy and implementation of the ICE's activities to oversee construction and to certify that the works meet design specifications.

8.2 Scope and Approach

The Independent Monitor's approach to the audit was to review the Authorisation conditions relevant to the ICE requirements. Additionally, a site visit audit was conducted 29 -30 March 2023 and the onsite ICE audit tasks included:

- Interview the Mine's Principal Mining Engineer
- Interview the ICE Senior Dam and Geotechnical Engineer. Noting this interview was undertaken virtually as the ICE team member was off-site.

The scope of this ICE audit focussed on the adequacy of implementation of ICE activities. The regulatory requirements in relation to the ICE are prescribed in Authorisation Conditions 48, 49, 51, 54, 56, 63, 75, 76 and 78. Refer to Section 3.2 for the compliance audit findings for the ICE's performance against the Authorisation.

Background

The Authorisation conditions detail the obligations and deliverables in relation to the ICE's activities. The Mine is required to appoint an ICE to conduct activities including to:

- Be present during all phases of construction
- Oversee and certify that construction works meet design specifications
- Approve changes to design during construction
- Verify any monitoring equipment installed as part of construction
- Provide certified 'as constructed' reports detailing all works undertaken, including:
 - hold point sign offs
 - testing carried out
 - compliance of test results with the acceptance criteria
 - justification that demonstrates in the event of any deviations to the plan, that the design intent and performance of the structure is still met.
- Verify the suitability of the Potentially Acid Forming (PAF) material placement methodology.



The Mine's Engineering team appoint and work with the ICE whose responsibility is to oversee construction to warrant and accept both design and construction works through providing ICE certification that the works meet the design specifications. The ICE team is comprised of approximately 10 people.

The ICE's site activities are organised by two distinct work domains, one for the NOEF and the other for the TSF. The NOEF is designed, constructed and operated by the Mine and the ICE is responsible for certifying that the NOEF is built and operated according to the design specifications. There was no organisational chart, to illustrate the various ICE roles and responsibilities, available at the time of the audit.

It is understood the ICE prepares various construction reports to oversee and certify the construction work progressively meets the design specifications. For the NOEF the ICE construction reports include:

- Daily Construction Reports including a daily diary and photographs
- Monthly Construction Reports including construction progress, test results, survey results, RFIs, technical queries, Non-Compliance Reports (NCR), resolution of NCRs
- Annual Construction Reports annual performance review, lessons learnt for each stage
- As Constructed Report certified report at the completion of construction.

8.3 Findings

The key findings in relation to the ICE review are outlined below. The detailed review findings and identified opportunities for improvement are provided in a separate Independent Monitor report.

The Independent Monitor has received some copies of Design Reports (NOEF NE Alpha Stage dated 23 February 2022, NW Stage Foundation and Base dated 20 July 2022), some copies of Daily Reports, some copies of Monthly Reports in 2022 (but none in 2023).

TSF Quarterly Construction Reports have been prepared by the ICE regularly and provided to DITT between 2021 and 2023. The TSF quarterly reports contain sections including: tailings management, seepage management, slurry density, WMD, Surprise Creek interception trench, water quality, TSF stability, construction activities, conclusion and recommendations.

As part of the construction phase, ITPs are prepared by the Mine prior to the commencement of the construction activity. These ITPs contains QA/QC processes and 'Hold Points' for the detailed management of the physical works. The ITPs and 'Hold Points' are also reviewed and signed off by the ICE. The Independent Monitor has received multiple examples of completed ITPs documentation for different construction activities. The completion and sign off of ITPs for handover from the Project Team to the Operations Team prior to the placement of rock is well understood and implemented.

Hold Points provide a verification point in the construction quality process beyond which work cannot proceed without relevant sign off. Hold Points are signed off as completed by the Mine's Site Engineer as per the ITPs. The Independent Monitor has sighted evidence that some but not all ITP Hold Points have been signed off by the ICE.

Construction Hold Points have proven valuable in verifying construction in accordance with the specification prior to proceeding. Over time it was noted that a reduction in the number and frequency of construction Hold Points resulted in an increase of NCR occurrences, and that the reinstatement of



Hold Points resulted in a corresponding reduction in NCRs and rework. This is an example of on-site construction adaptive learning to balance the number of Hold Points with the quality requirements of the construction activity.

Full time supervision provided by the ICE enables daily inspections and enhanced communication with the Mine's Project Team which provides a direct benefit of reducing the amount of rework due to a lower number of NCRs. The ICE's presence provides a greater level of QA/QC scrutiny and ensures that discrete construction activities are completed in accordance with the requirements of the design specifications.

Some evidence of the ICE's oversight and certification for various construction work was available. There is scope in the ICE process to make the progressive sign-off of construction activities more complete. The regular provision of monthly or quarterly ICE construction reports would provide greater assurance that works have been undertaken in accordance with the design specification.



9 Review of the Adaptive Management Plan

9.1 Objective

In this audit period review of the environmental performance of the Operator included conducting an audit of the Operator's AMP. The objective of the AMP review was to determine the extent to which the AMP satisfies the requirements of Authorisation. The review included conducting the following activities:

- Review the adequacy of the AMP and its implementation
- Audit and report on environmental monitoring reports and data relevant to the AMP to determine whether the Operator is meeting the required outcomes as stated in the objectives.

9.2 Scope and Approach

The Independent Monitor's approach to the audit was to review the Authorisation conditions relevant to the AMP requirements. The audit was conducted in December 2022 and the specific review tasks were:

- Audit the extent to which the AMP complies with conditions 45, 46 and 47 of Authorisation and other relevant Authorisation conditions
- Assess the Operator's compliance with the AMP Management Plans
- Assess the extent and effectiveness of the AMP feedback mechanisms, triggers and mitigation
 actions, in response to relevant management plans and monitoring programs, to ensure
 environmental outcomes are being met
- Comment on the actions taken by the Operator to address key findings from the Independent Monitor's 2020 AMP Review Report.

In the context of the audit, the conditions of Authorisation that mention the AMP (i.e., Conditions 16, 17, 18, 23, 26, 27, 29, 33, 34, 35, 44, 56, 59, 93, 94 and 95) were of secondary focus. These conditions were assessed and refer to information and data from monitoring programs required to inform any review or update of the AMP.

Background

The initial version of the AMP was submitted as part of the OMP MMP in January 2020. The Independent Monitor conducted an audit of the initial AMP in June 2020. The sixth iteration of the AMP, Revision E dated 13 May 2022, and supporting management plans were the subject of the audit.

9.3 Findings

The audit assessed that the AMP has been developed and implemented consistent with the requirements of the Authorisation. OFIs were provided for ongoing actions that could further enhance the AMP. The review found the AMP adequately meets the Authorisation as it 'partly satisfies' or 'satisfies' all the active requirements of the Authorisation's key conditions 45, 46 and 47 as well as sixteen other relevant conditions.



These findings were based upon document reviews, interviews and monitoring evidence obtained that demonstrated a high level of action that supports the overall conclusion that the Operator is meeting the required outcomes as stated in the key environmental objectives.

Since the initial AMP (Revision 0, January 2020), the current AMP (Revision E, May 2022) has been improved to better fulfil aspects of the Authorisation conditions, including the addition of new sections and figures that provide greater clarity, rigour, structure and definition of the processes for:

- Environmental management and monitoring
- Monitoring Programs
- TARPs
- Environmental performance SMART criteria triggers
- TARP level 3 investigation reporting and assessment against environmental objectives
- Potential contingency measures
- AMP review and revision.

Significant progress has been achieved with eleven of the twenty Independent Monitor's original review comments on the AMP now implemented and completed, while nine of the review comment actions are ongoing.

The listing of measurable performance indicators and the current TARP process allows MRM to show whether the objectives are on target to be met. The current AMP provides a sound basis for environmental planning, management, and continuous improvement.

The audit identified that the AMP would benefit from incorporating further information to:

- Describe the EMR process that assesses the Monitoring Programs' results to verify that the AMP's key environmental objectives continue to be met
- Consider expansion of the assessment conducted against the key environmental objectives by incorporating relevant findings from other existing Monitoring Programs' results, not currently specifically included, in the AMP TARP process
- Describe the process for the identification and reporting of trends from the analysis of Monitoring Programs' results that may be indicative of potential environmental risks.

The review developed 16 comments as opportunities for improvement related to the extent that the AMP satisfies the relevant Authorisation conditions. A revised AMP that addresses these review comments will further assist to facilitate improved environmental management and decision-making over time in response to evolving knowledge and changing circumstances.

The Review of the AMP full report is publicly available on the DITT website. The next review of the AMP by the Independent Monitor is scheduled for 2025.



10 Comparative Analysis 2020, 2021, 2022 and 2023

10.1 Objective

The objective of the comparative analysis between the 2020, 2021, 2022 and 2023 AEPAR findings is to assess trends in environmental performance as it relates to the Authorisation, WDL, NT EPA recommendations and river system health.

10.2 Scope and Approach

The scope of this comparative analysis involved:

- For the Operator, a quantitative comparison between the 2020, 2021, 2022 and 2023 AEPAR findings relating to the Authorisation and WDL
- For DITT, a quantitative comparison between the 2020, 2021, 2022 and 2023 AEPAR findings relating to the Authorisation and NT EPA recommendations
- A review of OFI action status considered if OFIs raised in 2020, 2021, 2022 and 2023 for both Operator and DITT have been closed or are still to be addressed.
- A review of the river system health findings for the current audit compared to those of the 2022 AEPAR.

10.3 General Findings

The overall Operator 2023 AEPAR compliance scores compared to the 2022 AEPAR have improved by 1% for both the Authorisation (up to 97%) and the WDL (up to 99%).

This AEPAR examined 908 conditions and sub condition requirements contained in the Authorisation, WDL and NT EPA recommendations and identified 610 active conditions. This number of active conditions was a significant increase on the 481 active conditions in 2022. Out of the active requirements, 23 part compliances for the Operator and 28 part compliances for DITT were identified.

The comparative findings are discussed in the relevant sections below, grouped by Operator, DITT and river system health.

10.3.1 Operator

Authorisation

The Operator has achieved a very high level of overall Authorisation compliance at 98%, with a 1% improvement in score since 2022 AEPAR (97%). The improvement was achieved despite the challenges in maintaining very high levels of compliance in complex approvals circumstances, including the requirement to satisfy 60 more conditions, approximately a 30% increase, than in 2022. This 2023 finding is an indicator of the Operator's continuous environmental performance progress by exceeding the previous high level of compliance achieved in 2022.

The Operator's Authorisation audit process identified 21 OFIs in 2020, 21 OFIs in 2021,18 OFIs in 2022 and 14 OFIs in 2023. This year-on-year reduction trend in the number of OFIs is an indicator of Authorisation compliance continuous improvement. Two of the OFIs remain from the 2021 AEPAR with



another four very similar to OFIs in the 2022 AEPAR. This audit finding indicates that some OFIs are challenging to implement and have not yet been addressed.

The comparison between the 2020, 2021, 2022 and 2023 Operator Authorisation audit condition numbers, active conditions numbers and overall compliance scores is illustrated in Figure 10-1: *Comparison of 2020, 2021, 2022 and 2023 Operator Authorisation FindingsFigure 10-1.*

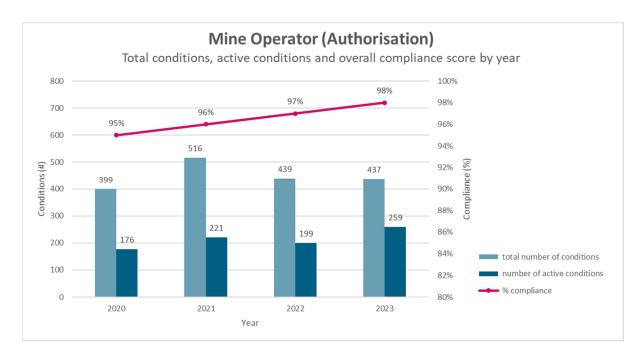


Figure 10-1: Comparison of 2020, 2021, 2022 and 2023 Operator Authorisation Findings

Waste Discharge Licence

The Operator's WDL has achieved a very high level of overall compliance with an 1% increase on the 2022 AEPAR to 99% with only one single part compliance.

There are no recorded OFIs for the Operator relating to WDL compliance in this AEPAR. The Operator has progressively achieved a significant reduction in the number of WDL OFIs, from 8 in 2021 to 4 in 2022 and to none in 2023. This continuing reduction in the number of OFIs attained by the Operator over a four year period is an indication of continuous improvement.

The comparison between the 2020, 2021, 2022 and 2023 Operator WDL audit condition numbers, active condition numbers and compliance scores are shown in Figure 10-2.





Figure 10-2: Comparison of 2020, 2021, 2022 and 2023 Operator WDL Findings

The continuous improvement trends in the Operator's Authorisation and WDL compliance scores attained in recent years are illustrated in Figure 10-3.

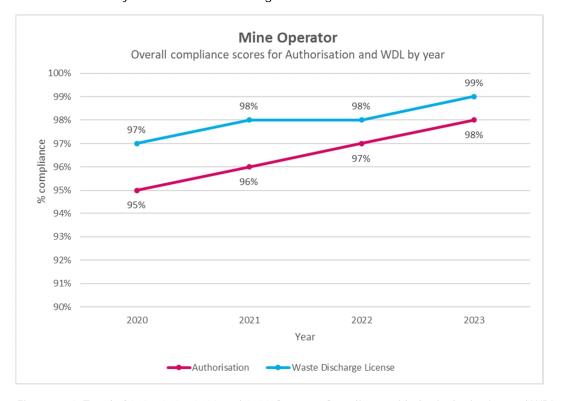


Figure 10-3: Trend of 2020, 2021, 2022 and 2023 Operator Compliance with the Authorisation and WDL



10.3.2 DITT

The overall compliance scores attained by DITT have increased by 1% to 97% for the Authorisation and decreased by 1% for the NT EPA recommendations to 97%. DITT has maintained a high level of compliance.

The total number of DITT OFIs (Authroisation and NT EPA recommendations) was 18 in 2021 AEPAR, 17 OFIs in 2022 and 12 OFIs have been raised in this 2023 AEPAR. This reduction trend in the total number of OFIs is an indicator of DITT overall compliance continuous improvement.

Authorisation

The audit process identified one DITT Authorisation OFI remaining from 2021 and two OFIs carried over from 2022 with three other OFIs similar to 2022. This audit finding indicates that some OFIs are difficult and have not yet been addressed.

The comparison between the 2020, 2021, 2022 and 2023 DITT Authorisation audit condition numbers and compliance scores are shown in Figure 10-4. The improvement was achieved despite the challenges in maintaining high levels of compliance in complex approvals circumstances, including the requirement to satisfy 81 more conditions, approximately a 119% increase, than in 2022.

The comparison between the 2020, 2021, 2022 and 2023 DITT Authorisation audit condition numbers, active conditions numbers and overall compliance scores is illustrated in Figure 10-4.

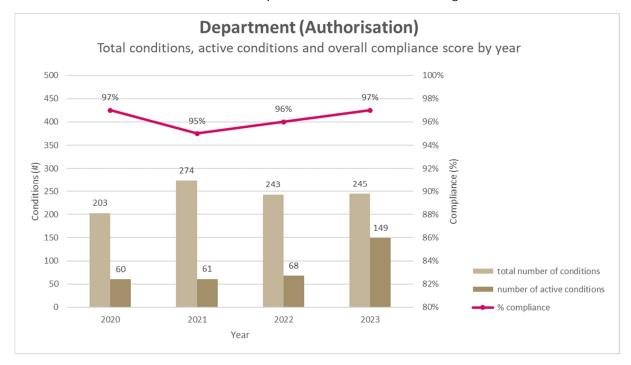


Figure 10-4: Summary Table for Comparison of 2020, 2021 and 2022 DITT Authorisation Findings

NT EPA recommendations

Overall, DITT has maintained a high level of compliance at 98% for adopting the intent of the NT EPA recommendations in the wording of the Authorisation conditions and implementation of the recommendations.



The total number of 117 NT EPA recommendations was the same between 2021, 2022 and 2023 as shown in Figure 10-5. The 2020 number of relevant recommendations considered implementation of the active recommendations while the 2021, 2022 and 2023 audits considered the number of recommendations requiring incorporation into the Authorisation.

The NT EPA recommendations audit process identified seven OFIs in 2020, 14 OFIs in 2021, 9 OFIs in 2022 and 11 in 2023. One of the NT EPA recommendations' part compliances and corresponding OFIs is similar to the corresponding OFI from 2021.

The comparison between the 2020, 2021, 2022 and 2023 DITT NT EPA recommendations audit condition numbers, active condition numbers and compliance scores are shown in Figure 10-5: Summary Table for Comparison of 2020, 2021 and 2022 DITT NT EPA Recommendations Findings.

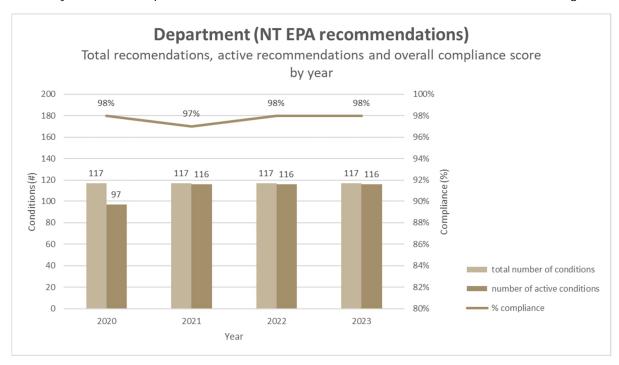


Figure 10-5: Summary Table for Comparison of 2020, 2021 and 2022 DITT NT EPA Recommendations Findings

The trend of consistently high compliance scores attained by DITT in recent years for the Authorisation and NT EPA recommendations are illustrated in Figure 10-6.



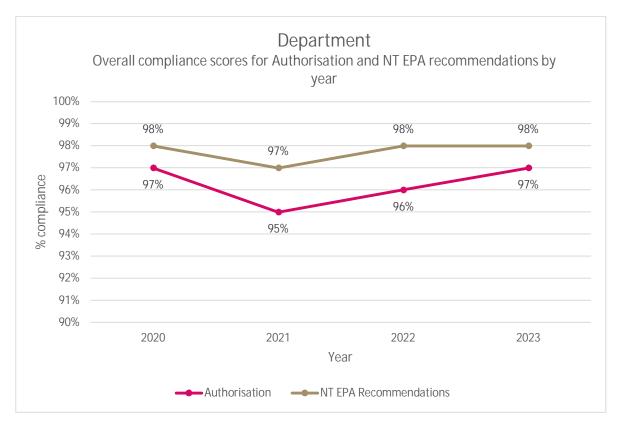


Figure 10-6: Trend of 2020, 2021, 2022 and 2023 DITT Compliance with the Authorisation and NT EPA recommendations

10.3.3 River System Health

Consistent with the findings reported in the 2021 and 2022 AEPARs, the 2023 AEPAR river system health monitoring indicates:

- No observable change in freshwater aquatic fauna species diversity and abundance outside the range of natural variance
- Aquatic ecosystems of the McArthur River and its tributaries are in good condition
- An extremely low risk to human health from consuming the monitored fish species caught in the McArthur River catchment in the vicinity or immediately downstream of the mineral lease.



11 Status of Opportunities for Improvement

11.1 Operator OFI Status

OFIs for the Operator were identified in the AEPAR for the audit period of 01 May 2020 to 30 April 2022 and were also identified in previous AEPAR audit periods. It is notable that the opportunities are not mandatory requirements. These opportunities were identified with respect to:

- Authorisation conditions
- WDL conditions
- Operator commitments
- Environmental risk
- River system health.

There were no OFIs in relation to the Operator's compliance with NT EPA recommendations in the previous audit periods and accordingly are not mentioned in the findings below.

The status of the OFIs has been reviewed as part of the 2023 audit. This was undertaken through review of summary information provided by the Operator.

11.1.1 Findings

The status of each of the Operator 2022 AEPAR OFIs is set out in Table 11-1. Of the 34 OFIs that were identified for the Operator:

- 7 have been completed
- 1 is ongoing
- 16 are in progress
- 5 were not implemented during the audit period
- 3 were not implemented during the audit period, but have alternative approaches proposed
- 2 status updates were not available
- 1 was superseded.

A review shows that more than half, 18 of all the Operator 2023 AEPAR OFIs are similar to or carried over from previous years. The situation where OFIs are repeated across multiple years is an indication that OFIs remain unresolved.

The OFI status in Table 11-1 has been provided by the Operator and where the Independent Monitor is aware of OFI actions still to be completed, a note has been added.



Table 11-1: Status of Operator Opportunities for Improvement

OFI Ref.	Operator OFI ¹	Document Section / Key Regulatory Activity	Status
OFI-22-OP- AUTH-01	Prepare annual as-built factual reports for the NOEF as required by the MMP. (Condition 3)	General	Not implemented
OFI-22-OP- AUTH-02*	Submit all monitoring data inclusive of HVAS results annually to the Department in the required format. (Condition 7)	Mining Management Plan and Reporting	Complete
OFI-22-OP- AUTH-03	Submit 'as built' construction reports for the TSF to DITT within 30 days upon construction being finalised. (Condition 8)	Mining Management Plan and Reporting	In progress
OFI-22-OP- AUTH-04*	Obtain approval of the ICE's limitation on responsibility position with DITT. (Condition 48.a)	Independent Oversight - Appointment of ICE	In progress
OFI-22-OP- AUTH-05	Provide construction documentation (e.g., ITPs) for the operational phase of the NOEF to the ICE so that they (ICE) can warrant and accept both the design and construction works, oversee and certify the works meet design specifications, approve recommencement of works at hold points and prepare weekly / monthly progress reports. (Condition 48.a, 48.b and 48.c)	Independent Oversight - Appointment of ICE	In progress++
OFI-22-OP- AUTH-06	Obtain evidence that the ICE has overseen and certified that TSF buttress works conducted December 2021 to April 2022 meet design specifications. (Condition 48.b)	Independent Oversight - Appointment of ICE	In progress**
OFI-22-OP- AUTH-07*	Ensure the ICE finalise the as-constructed report for EPROD that meets the requirements of condition 48.g, including sub-conditions. (Condition 48.g)	Independent Oversight - Appointment of ICE	Complete



OFI Ref.	Operator OFI ¹	Document Section / Key Regulatory Activity	Status
OFI-22-OP- AUTH-08*	Ensure the ICE prepares as-constructed reports in a timely fashion. (Condition 48.g)	Independent Oversight - Appointment of ICE	In progress**
OFI-22-OP- AUTH-09	Involve the ITRB related to TSF design changes and timely review of construction documentation and the updated TSF OMS Manual. (Condition 50.b.ii)	Independent Tailings Review Board	in progress**
OFI-22-OP- AUTH-10	Retrospectively obtain ITRB endorsement for the TSF buttress design changes in writing and ensure any future modifications are endorsed by the ITRB in a timely fashion. (Condition 50.e)	Independent Tailings Review Board	In progress
OFI-22-OP- AUTH-11	Finalise the TSF OMS Manual and ensure that it is reviewed annually and if updates are required, update it and issue the revised version for ITRB review and endorsement. (Condition 50.e.ii)	Independent Tailings Review Board	In progress
OFI-22-OP- AUTH-12 ⁺	Correspond with DITT about the intent of this condition and specifically the impracticality of locating signage along the length of the shipping channel and in the immediate area surrounding the shipping channel and swing basin. (Condition 62.c.iii.d)	Water Management and Storage	In progress
OFI-22-OP- AUTH-13	Include characterisation data for exploration drilling in the EMR. (Condition 83)	Geochemical, Geotechnical and Hydrogeological Assessments and Investigation Drilling	Superseded
OFI-22-OP- AUTH-14*	Construct the permanent gauging stations on Emu Creek and Glyde River now that approvals are in place. In the meantime, deploy multiple loggers in Emu Creek and the Glyde River to provide redundancy to ensure continuous data collection in lieu of permanent gauging stations. (Schedule D - 3.a and 3.b)	Environmental Management and Monitoring	In progress



OFI Ref.	Operator OFI ¹	Document Section / Key Regulatory Activity	Status
OFI-22-OP- AUTH-15 ⁺	Update management plans to indicate the process relating to advising DITT when a part of the plan cannot be implemented. (Schedule D - 6.b)	Environmental Management and Monitoring	Not implemented – alternate approach proposed
OFI-22-OP- AUTH-16	Keep the WMP and Monitoring Schedule up to date in terms of removing decommissioned groundwater bores. (Schedule D - 6.b)	Environmental Management and Monitoring	In progress++
OFI-22-OP- AUTH-17	Improve the access to groundwater bores (e.g., GW19008 to GW19011, GW19013 to GW19015, GW19018, GW19019 and GW19021) or update the WMP to acknowledge access is not available at all times. (Schedule D - 6.b and 6.c)	Environmental Management and Monitoring	Not implemented – alternate approach proposed
OFI-22-OP- AUTH-18	Improve access to dust depositional gauges, seek approval for alternative locations (e.g., DDG24, DDG58, BBDDG8) or update the Air Quality Management Plan to acknowledge access is not available at all times. (Schedule D - 6.c)	Environmental Management and Monitoring	Not implemented – alternate approach proposed
OFI-22-OP- WDL-01*	Obtain continuous wet season river level and flow monitoring data (greater than 90% capture) for SW09 (Glyde River), SW21 (McArthur River) and SW31 (Emu Creek). (Condition 26)	Waste Discharge License	In progress
OFI-22-OP- WDL-02	Either use a NATA accredited laboratory for turbidity analysis or obtain a WDL amendment from DEPWS. (Condition 31)	Waste Discharge License	Complete
OFI-22-OP- WDL-03	Include all non-compliances (not only those related to exceedances) in the WDL non-compliance register. (Condition 36)	Waste Discharge License	In progress
OFI-22-OP- WDL-04*	Implement any actions to facilitate notification of non-compliances within 24 hours of receiving final laboratory results. (Condition 37)	Waste Discharge License	Complete
OFI-22-OP- COM-01 ⁺	Provide detail and address the outstanding commitments from the MMP (Appendix L), along with the eight incomplete actions for the commitments reported in the EMR (Appendix B).	Operator Commitments OFI	In progress
OFI-22-OP- COM-02+	Incorporate the commitments from the MMP (Appendix L and Appendix M) to a single commitment register for reporting against in future EMRs, and rationalise the commitments to avoid duplication.	Operator Commitments OFI	Not implemented



OFI Ref.	Operator OFI ¹	Document Section / Key Regulatory Activity	Status
OFI-22-OP- COM-03 ⁺	Provide additional information in the commitments register to identify where a commitment is closed out with no further action proposed. Provide details of close-out actions to confirm commitments are complete, e.g., date completed, brief description of action completed, reference to relevant supporting report/ data/ documentation.	Operator Commitments OFI	Not implemented
OFI-22-OP- COM-04 ⁺	Provide a unique reference number to each commitment to facilitate tracking and reporting.	Operator Commitments OFI	Not implemented
OFI-21-OP-R 01 ⁺	Implement regular formal environmental risk assessment reviews to monitor the effectiveness of controls as part of continuous improvement.	Risk Management OFI	Status update not provided
OFI-21-OP-R 02 ⁺	Undertake regular formal environmental risk assessment reviews to update risk status and track environmental risk management progress as part of continuous improvement.	Risk Management OFI	Status update not provided
OFI-21-OP-R 01 ⁺	Adopt the conclusions of the Operator's external experts that it is preferable to increase the number of reference sites along the McArthur River rather than in adjacent catchments.	Freshwater Macroinvertebrat e Monitoring	In progress
OFI-21-OP-R 02 ⁺	Increase the number of downstream reference sites with riffle microhabitat in future sampling as planned.	Freshwater Macroinvertebrat e Monitoring	In progress ⁺
OFI-21-OP-R 03 ⁺	Maintain longer term data collection for comparison of annual aquatic fauna program to better understand longer- term trends and influences of inter-year variability in-flow on aquatic fauna community development and resilience in the McArthur River Diversion Channel.	Diversity and Abundance of Freshwater Aquatic Fauna	Complete
OFI-21-OP-R 04 ⁺	Increase the number of tagged fish to replace the fish for which batteries in the tag are reaching their expiry dates.	Freshwater Sawfish and Barramundi Acoustic Monitoring	Complete



OFI Ref.	Operator OFI ¹	Document Section / Key Regulatory Activity	Status
OFI-21-OP-R 05	Determine if inclusion of tissue metal concentration sampling at the remote Batten Point (McArthur River estuary) location would be beneficial to the monitoring program and/or enhance the relevance of the monitoring program to the local community.	Aquatic Fauna – Metals	Complete
OFI-21-OP-R 06	Undertake a reach-scale assessment to measure the extent of rehabilitation along the entire McArthur River Diversion Channel and provide an indication of the reach scale trajectory of rehabilitation for fish habitat. This may be undertaked at a coarse level and provide a measure of riparian revegetation success combined with introduced woody debris over time.		Not implemented

Table notes

¹ Reference to related Authorisation, WDL condition or commitment is provided where applicable

^{*} Similar OFI from 2021 AEPAR

⁺ OFI carried over from 2021 AEPAR

^{**}Note MRM indicated status as complete; however, has been shown as 'In progress' as appears to be subject to further review.



11.2 DITT OFI Status

OFIs for DITT were identified in the AEPAR for the audit period of 01 May 2021 to 30 April 2022 and were also identified in previous AEPAR audit periods. It is notable that the opportunities are not mandatory requirements. These opportunities were identified with respect to:

- Authorisation conditions
- NT EPA recommendations
- Performance in regulatory procedures and regulatory approach.

The status of the OFIs has been reviewed as part of the 2023 audit. This was undertaken through review of summary information provided by DITT.

11.2.1 Findings

The status of each of the DITT 2022 AEPAR OFIs is set out in Table 11-2. Of the 22 OFIs that were identified for DITT during the audit period:

- 7 have been completed
- 14 are in progress
- 1 was not implemented, but an alternative approach is under consideration.

Review of the status of DITT 2022 AEPAR OFIs shows that over 90% of the opportunities for improvement are either in progress or complete.

Of the 14 OFIs that are indicated as being in progress, nine were initially identified through Independent Monitor auditing prior to the 2022 AEPAR, suggesting that close-out of some opportunities is taking considerable time.

Four of the 14 OFIs that are indicated as being in progress relate to processes for management of Operator submissions, including tracking and timely close-out. As such, a new OFI is identified as follows:

 Set up process for tracking submissions by Operator and subsequent acknowledgement, review, information request (as relevant) and approval (or otherwise) of submitted documents by DITT.
 This may include register and work program to set out forecast activity timeframes and dates, which are updated regularly as actual progress is made.

Five of the 14 OFIs that are indicated as being in progress relate to the establishment and operation of independent panel of experts, noting the terms of reference for the independent expert panels for the NOEF and TSF were approved by the Minister in December 2022.



Table 11-2: Status of DITT Opportunities for Improvement

OFI Ref. 2022 AEPAR	Opportunity for Improvement	Document Section / Key Regulatory Activity	Status
OFI-22-DE- AUTH-01	Amend the condition to specify what 'as built' construction reports are required rather than relying on the MMP to provide a clear list of what 'as built' construction reports are required. (Condition 8)	Mining Management Plan and Reporting	Complete [^]
OFI-22-DE- AUTH-02	Prepare an annual program/register of Operator deliverables and submissions to assist DITT to manage the acknowledgement of receipt, adequacy review of submissions, and timely request for additional information, if required. (Condition 8)	Mining Management Plan and Reporting	In progress (from AEPAR 2021)*
OFI-22-DE- AUTH-03	Monitor construction progress to identify upcoming completion so that the anticipated date of receipt of construction reports is known in advance and to prompt follow-up action if anticipated due date is passed. (Condition 8)	Mining Management Plan and Reporting	In progress (from AEPAR 2021)*
OFI-22-DE- AUTH-04	Review and approve submitted document in a more timely manner (e.g. NOEF Interception Scheme Report VOA Condition 22 dated 13Nov2021, Ecotoxicology research and investigation program submitted 25Oct2021, Air Quality Management Plan submitted 13Nov2021 and AMP submitted 13Nov2021 to allow for implementation of any recommendations. (Conditions 22, 28.b, 34.c and 94.d.)	Overburden Management Project	In progress*
OFI-22-DE- AUTH-05	Establish the independent expert panel (NOEF) or use an alternative expert review in the interim to assess requirement for the NOEF seepage interception trench and recovery system. (Condition 22)	Overburden Management Project	In progress
OFI-22-DE- AUTH-06	Establish the Independent Panels (NOEF and TSF) so that consultation during the preparation of future management plans can occur. (Condition 27.d)	Overburden Management Project	In progress
OFI-22-DE- AUTH-07	Establish the Community Reference Group. (Condition 43)	Overburden Management Project	In progress**
OFI-22-DE- AUTH-08	Monitor overdue Operator TSF actions from the TSF Recommendation, Instruction and Action Register to ensure they are closed out satisfactorily. (Condition 80.d)	Tailings Storage Facility	In progress*
OFI-22-DE-REC- 01	Incorporate into DITT processes a review of the Operator's NOEF management program every three years. (NT EPA Recommendation 8.i)	Inland Water Environmental Quality	In progress (from AEPAR 2021)



OFI Ref. 2022 AEPAR	Opportunity for Improvement	Document Section / Key Regulatory Activity	Status
OFI-22-DE-REC- 02	Incorporate into DITT processes consultation with other government agencies on the preparation and implementation of the ecotoxicological program, e.g. NT DEPWS and Commonwealth DAWE (now DCCEEW). (NT EPA Recommendation 14.)	Aquatic Ecosystems	Complete
OFI-22-DE-REC- 03	Incorporate into DITT processes consultation with other government agencies on the preparation and implementation of the aquatic ecosystem monitoring program e.g., NT DEPWS and DAWE (now DCCEEW). (NT EPA Recommendation 15.)	Aquatic Ecosystems	Complete
OFI-22-DE-REC- 04	Update a future Authorisation to include reference to the results of the air quality monitoring plan to be audited by the Independent Monitor every three years. (NT EPA Recommendation 19.)	Human Health	Not implemented***
OFI-22-DE-REC- 05	Incorporate a requirement into DITT processes to consult other government agencies on the development of non-lethal monitoring program for sawfish monitoring program, including trigger threshold for investigation and management measures, e.g., NT DEPWS and DAWE (now DCCEEW). (NT EPA Recommendation 21.)	Matters of National Environmental Significance	Complete
OFI-22-DE-REC- 06	Incorporate a requirement into DITT processes for the Independent Panel to review the risk of failure of the mine levee wall and the McArthur River Diversion Channel as part of the closure plan objectives. (NT EPA Recommendation 23.ii.)	Closure and Rehabilitation	In progress (from AEPAR 2021)
OFI-22-DE-REC- 07	Incorporate a requirement into DITT processes for the Independent Panel to provide a 3-5 yearly review report on the mine closure plan to assess the trajectory of closure options to DITT and the Independent Monitor. To subsequently be made available to the Operator, government agencies, CRG and the public. (NT EPA Recommendation 23.)	Closure and Rehabilitation	In progress (from AEPAR 2021)
OFI-22-DE-REC- 08	Incorporate into DITT processes a mechanism for the Operator's review and synthesis of all monitoring programs and revised monitoring program to be reviewed by the Independent Panel(s) and the Independent Monitor, and be approved by the relevant regulators, e.g., DITT. (NT EPA Recommendation 27.)	Adaptive Management	Complete
OFI-22-DE-REC- 09	Consider the development of a DITT process or register to assist capturing the NT EPA recommendations details that are not explicitly stated in the Authorisation conditions to ensure implementation of the specific requirements is achieved.	General	In progress (from AEPAR 2021)



OFI Ref. 2022 AEPAR	Opportunity for Improvement	Document Section / Key Regulatory Activity	Status
OFI-22-DE-REG- 01	Prioritise the establishment of the Independent Panel of Experts for TSF and NOEF to trigger and facilitate independent reviews of the Operator's monitoring program and reporting.	Regulatory Approach	In progress (from AEPAR 2021)
OFI-22-DE-REG- 02	Facilitate an internal DITT review to examine the annual EMR process, tasks and outputs with a view to streamline the activity. As part of this review, examine what is sufficient for regulatory requirements and responding to community expectations, as well as how the annual process could be more efficient.	Regulatory Approach	In progress (from AEPAR 2021)
OFI-22-DE-REG- 03	Prepare an internal procedure for the regulation of the Authorisation conditions and NT EPA recommendations to document the processes, timing, due dates, overdue submissions, approvals, decisions, public /community communication and records requirements to assist managing the complex regulatory requirements relating to DITT activities.	Regulatory Approach	In progress (from AEPAR 2021)
OFI-22-DE-REG- 04	Improve communication and collaboration with other government agencies (Commonwealth and NT) to align objectives and actions, streamline processes, and improve environmental outcomes.	Regulatory Approach	Complete
OFI-22-DE-REG- 05	Reduce reliance on key individuals within DITT to ensure consistency and continuity of compliance and performance.	Regulatory Approach	Complete

Table notes:

¹ Reference to related Authorisation, WDL condition or commitment is provided where applicable

[^]This OFI was in progress during the audit period; however, after the audit period the Authorisation 17 May 2023, Condition 8a. updated to require a list of structures to be constructed in the coming year that will have "as constructed" drawings report prepared.

^{*} New OFI related to these actions - Set up process for tracking submissions by Operator and subsequent acknowledgement, review, information request (as relevant) and approval (or otherwise) of submitted documents by DITT. This may include register and work program to set out forecast activity timeframes and dates, which are updated regularly as actual progress is made.

^{**} This OFI was in progress during the audit period; and subsequently has been completed as the first CRG meeting occurred on 27 July 23 (outside the audit period)

^{***} This OFI was not implemented; however, DITT indicates an alternative approach was agreed with the Operator and is applied whereby air quality monitoring results are included in the annual EMR.



12 Stakeholder Engagement

12.1 Overarching Scope and Approach

The Independent Monitor's stakeholder engagement approach aims to meet the following objectives:

- Communication reflects local community interests
- Engagement is appropriate, relevant, and inclusive and builds stakeholders' trust of the Independent Monitor team, process and outcomes
- Stakeholders perceive the Independent Monitor process as transparent, which facilitates stakeholder trust of the outcomes
- Community and key stakeholders are informed about the environmental review and audit report findings.

A comprehensive Stakeholder Engagement Plan was prepared to guide community and stakeholder engagement and communications for the Independent Monitor. Advisian engaged CCC, a Northern Territory Aboriginal business as a subconsultant, to facilitate community engagement throughout the Independent Monitor process. This was crucial during the COVID-19 pandemic, with many interstate travel restrictions in place.

An overview of the engagement approach, scope, limitations, key outcomes, and recommendations for future engagement is summarised in the following sections.

12.2 2022 AEPAR Engagement

12.2.1 Scope and Approach

Prior to the release of the 2022 AEPAR, the Independent Monitor stakeholder engagement team met with the local community on-country in October 2022 to communicate the findings of the 2022 AEPAR.

Participatory face-to-face stakeholder engagement was undertaken in Borroloola and surrounding outstations between 31 October and 3 November 2022 to discuss the outcomes of the 2022 AEPAR and answer any questions. The engagement approach included:

- Providing copies of the Independent Monitor Annual Report Card 2022, a visual reader-friendly version of the full report, to community stakeholders in Borroloola and surrounding area
- Meeting with community stakeholders, both one-on-one and in small group settings, to talk them
 through the findings of the report and provide an opportunity for stakeholders to ask questions
 regarding the audit findings in a culturally sensitive and private setting
- Providing community stakeholders with the contact details of the Independent Monitor stakeholder engagement team, offering the opportunity to discuss the report and ask questions.

A detailed overview of specific engagement approaches is outlined below.



Face-to-Face Consultation

From initial consultations in 2020, it was recommended that the ARC be presented in individual and small group conversations to allow for questions and context setting. Since then, the Independent Monitor has held face-to-face engagement with community members, both one-on-one and in small group settings. During consultation, CCC explained the AEPAR findings and provided an opportunity for stakeholders to ask questions in a culturally safe and private setting, allowing stakeholders to confidentially express their opinion and ask questions.

In total, 36 stakeholders were engaged in person during the time spent in Borroloola and the surrounding region. During engagement, community members were advised that they could be added to the Independent Monitor's stakeholder list if they wished to be directly engaged during future rounds of engagement.

Increased time in community

Feedback from previous engagement indicated that community members would prefer the engagement team to spend more time on the ground and that engagement was broadened to include consultation in communities, outstations and homelands surrounding Borroloola. This is to ensure a wider cross section of community members had the opportunity to be engaged. In response to this, the engagement period was extended and included the following locations:

- Borroloola (including town camps)
- Robinson River
- Wandangula (Police Lagoon)
- Goolminyini (Devil Spring)
- Minyalini (Campbell Spring).

In the prior round of engagement in early 2022, community stakeholders also requested additional time to consider the contents of the report and to have an opportunity to ask questions after considering the findings and discussing with members of their family and the community. While the engagement team was unable to remain in Borroloola for this extended period, the engagement team provided all stakeholders with the engagement team's contact details so they could reach out with any questions.

Traditional Owner Engagement Consultant

To facilitate Borroloola local community meetings, a community member who is a long-time Borroloola resident, well known throughout the region and a Yanyuwa/Marra Traditional Owner, was engaged to support the Independent Monitor stakeholder engagement team. Many community members and stakeholders were positive about this aspect of the engagement approach and commented that it had ensured individuals who previously would not have been consulted were engaged.

Annual Report Card

The 2022 ARC was used as a communication tool and given to community members to provide an overview of the key findings of the full 2022 AEPAR. Presenting the information in the form of this smaller report in plain English and with visual representation of findings increased accessibility for some community members. This engagement approach was in direct response to requests made by



community members during previous engagements who noted the full report was difficult for some people to understand. Copies of the ARC were distributed to community members and left at key community congregation points to allow interested local community members access to the findings. Additional copies of the ARC were also left at:

- Mabunji Aboriginal Resource Indigenous Corporation, Borroloola
- Mungoorbada Aboriginal Corporation, Borroloola
- Mawruli and Wirriwangkuma Aboriginal Corporation, Borroloola
- Roper Gulf Regional Council office, Borroloola
- MRM's Community Office, Borroloola.

Engagement Limitations

At the time when the Independent Monitor stakeholder engagement team were in the local community to undertake consultation, there were a number of important Northern Land Council meetings regarding the ongoing Indigenous Land Use Agreement (ILUA) negotiations the same week, which resulted in some key stakeholders and community members being unavailable to meet. There were also a number of other important events occurring in town during the same week which reduced the availability of stakeholders.

While the engagement team made several attempts to arrange consultations and maintain flexibility to accommodate the commitments of local stakeholders (i.e., arranging consultations during meeting breaks), the engagement team were ultimately unable to engage with a number of individuals, as well as representatives of the National Indigenous Australians Agency.

The engagement team sought to leave copies of the 2022 ARC in various locations around the community, together with contact details of the Independent Monitor stakeholder engagement team should stakeholders wish to follow up with and or discuss the AEPAR after the engagement team had left.

12.2.2 2022 AEPAR Engagement Outcomes Summary

Engagement feedback from local community members during the consultation activities for the 2022 AEPAR focused on:

- Health of the McArthur River and ecosystem
- Creating more opportunities for local involvement in environmental monitoring and land management
- Hosting a Green Day event.

Health of the McArthur River and ecosystem

The local community members' primary concern was the health of fish in the McArthur River and whether the fish, and other animals which drink from the river such as cattle, were safe to eat.

The AEPAR found that the fish in the McArthur River were safe to eat and a high level of compliance with the river health conditions. Community members were generally happy with the results of the report and were satisfied that the results reflected a high level of compliance with the conditions' requirements.



Creating more opportunities for local involvement

Community members indicated an interest in the Mine creating more opportunities for local people to be involved in environmental monitoring and land management activities. Many stakeholders acknowledged the inclusion of the Sea Rangers in a monitoring process as a positive step toward building local confidence in the results of monitoring.

However, some stakeholders felt there were additional opportunities the Mine could explore to increase local peoples' involvement in environmental monitoring and land management activities.

Suggestions included creating land management apprenticeships and work experience opportunities for local youth and creating more fee-for-service arrangements with local Ranger groups for environmental monitoring and management activities.

Green Day event

Community members expressed an interest in directly engaging with the Mine through community events and/or activities. A common suggestion was the potential opportunity for the Mine to host a 'Green Day' event (or similar) where community members could attend and learn more about the Mine's commitment and processes for environmental management and monitoring. The event would provide education and learning opportunities for community members, particularly local youth, regarding the importance of caring for the environment.

12.2.3 Identified opportunities for improvements to future engagement

To improve future rounds of engagement, the consultation process could be expanded to include direct engagement with the Aboriginal Corporations board members via their Annual General Meetings (AGMs). Many board members have a direct interest in the findings of the Independent Monitor's report, and the AGMs provide an opportunity for the engagement team to present the APEAR findings and engage with multiple key stakeholders simultaneously.

It is recommended the engagement period be reviewed and potentially extended.



13 Overall Conclusions

The Independent Monitor has assessed that both the Operator and DITT have achieved a high level of overall compliance with the Authorisation conditions, WDL conditions and with implementation of the NT EPA recommendations. The Operator's level of regulatory compliance has contributed to the effective management of potential operational environmental risks while safeguarding environmental values.

The audit period covered 01 May 2022 to 30 April 2023. It is the opinion of the Independent Monitor that during the audit period, the Operator has continued to avoid or minimise potential environmental risks by proactively managing and monitoring environmental issues across a wide range of site activities while maintaining a strategic focus on continuous improvement in environmental performance.

No significant environmental issues requiring urgent investigation and attention were found to have occurred during the audit period based on the information reviewed.

The Authorisation conditions address the potentially high-risk mining activities. The Operator's high level of compliance with the Authorisation conditions across all key operational activities is a measure of the level of fulfillment of regulatory requirements. The Operator has increased the overall compliance score by 1% for both the Authorisation and the WDL from the 2022 scores. The Operator has progressively achieved a significant reduction in the number of WDL OFIs, from 8 in 2021 to 4 in 2022 and to none in 2023.

A high level of compliance continued to be attained by DITT. An overall compliance score of 97% was an increase of 1% for the Authorisation score achieved in 2022 and the 98% compliance score for the NT EPA recommendations was maintained. The review found that DITT has effectively incorporated the NT EPA recommendations into the Authorisation conditions.

It was observed that DITT could improve action timeframes around some tasks such as the establishment of the TSF and NOEF Independent Panel of Experts and providing formal review acceptance or approval responses. The review found DITT to have a strong focus on key environmental risks (e.g. high number of conditions on NOEF and TSF) and a practical approach to compliance and monitoring. The Operator's performance and very high levels of regulatory compliance can be attributed, at least in part, to the approach adopted by DITT.

DITT has achieved progress on the establishment of the CRG with Independent Chairperson's appointment by the Minister for Mining and Industry in March 2023. The approved terms of reference for the Independent Panel of Experts for the NOEF and TSF have been published by DITT and the Panels are anticipated to be operating in 2024.

The Independent Monitor aquatic ecology review and site inspection provides a general assessment on overall river system health based on the information provided by the Operator. Consistent with the river system health findings reported in the 2020, 2021 and 2022 AEPAR, the McArthur River and its tributaries overall are considered to be in good health. Exceedances of metal concentrations in waterway sediments continue to be limited to a small number of sites on Barney Creek and Surprise Creek in an area of the mining lease immediately adjacent to operational areas, which requires ongoing management. No exceedances of metals in aquatic fauna were recorded in fish tissue samples in the 2022/2023 monitoring year.



A review of the Operator's air quality management found the implementation the AQMP including the air monitoring program is sufficient to minimise the risks of potential air emissions related impacts at the Mine and surrounding areas.

A review of the Operator's surface water management system found the system avoids uncontrolled discharge from dams overtopping and manages the treatment and transfer between storage of different classes of water to maintain the Mine's water balance. The surface water operational management and the monitoring programs combine well to protect the McArthur River.

A review of the ICE's oversight and certification processes for various Mine construction work found there is scope to make the progressive sign-off of construction activities more complete. The regular provision of monthly or quarterly ICE construction reports would provide greater assurance that works have been undertaken in accordance with the design specification.

The stakeholder engagement approach to communicating the AEPAR findings was expanded to include outstations surrounding Borroloola to ensure a wider cross section of stakeholders were engaged. On-country engagement was supported by a local community member Traditional Owner who is a long-time Borroloola resident and well known throughout the region. The engagement activities included meeting community members in both one-on-one and small group settings, and providing a copy of the ARC, which is a summary version to allow for easier reading and understanding.

Each section of the AEPAR describes the findings of the environmental compliance review, identifies opportunities for improvement and provides relevant conclusions. The listed opportunities are considerations aimed at continuous improvement for potentially enhanced environmental compliance, noting these are not mandatory requirements. During the audit period, a number of Authorisation conditions, WDL conditions and NT EPA recommendations were not applicable as they relate to 'future' requirements, which will be assessed in subsequent AEPARs.

Noteworthy successes that achieved improved performance beyond regulatory compliance by the Operator or DITT have been identified.

This 2023 AEPAR is the first occasion when a comparative analysis of the Independent Monitor's audit results from 2020, 2021, 2022 and 2023 has been examined. The Mine Operator has demonstrated continuous improvement with compliance scores increasing annually for both the Authorisation and WDL. Concurrently, DITT has maintained consistently high compliance scores year-to-year for both the Authorisation and NT EPA recommendations. This trend of high levels of regulatory compliance assists to manage environmental risks and supports the overarching environmental objective to protect the McArthur River from the potential impacts of mining.



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EMR 2022-2023 Appendix Q Freshwater Aquatic Macroinvertebrate Assessment 2022

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Appendix A
Authorisation Compliance Workbook Operator

thorisation Co	ompliance Work	book - Operator	∞	iver, ams) Sing	_ ks _	sion &	mine	al olic)				Evidence 2023	Comments 2023
		Condition/Requirement	vir Quality (dust ulphur dioxide, ransport)	urface Water (R Creek, Artificial d Marine Waters (B Song, marine ediments)	Groundwater Aquatic fauna (fisiver)	/egetation & Rehabilitation terrestrial, diversion	Vaste (general, r ock, tailings)	Community (locandigenous & pub	Monitoring & Reporting	Score	Compliance Level		
HEDULE A	SCHEDULE A Definitions		1 2	V, O L U V,									
1	1	In this document, unless the contrary intention appears:									-		Note that sub-conditions 1.a to 1.z are not listed as they are all definitions and unable to be audited for compliance.
pretation	Interpretation												
2	2	In this document, unless the contrary intention appears:									-		Note that sub-conditions 2.a to 2.h are not listed as they are all interpretation are unable to be audited for compliance.
ral	General												
3	3	Subject to any Conditions contained in the Act and this document, the Operator must comply with the commitments and activities contained in the MMP including the implementation of all systems referred to in the MMP.								3	Part Compliance (High)	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. EMR 2021-2022 dated 31Aug2022. The EMR 2022-2023 stated "MRM cleared approximately 38.3 hectares (ha) within the NOEF area during the reporting period and constructed approximately 47.2 ha of Basal Compacted Clay Liners (CCL) []. These works were carried out in accordance with the January 2020 MMP." and "The Water Management Dam Upgrade works occurred during the reporting period. The upgrade was constructed consistent with the approved designs, and the overall MMP philosophy." The EMR 2022-2023 said that the NW Stage and NE Alpha stage were constructed as per the OMP EIS methodology and consistent with the approved 2020 MMP. The EMR 2022 2023 said that consistent with the approved 2020 MMP and OMP EIS methodology, construction in the CE stage and SE Alpha stage included the development of []. Section 5 of the January 2020 MMP Appendix G NOEF Design and Construction Guidelines states "MRM complete an as-built factual report for the works, at the sooner of completion of the works or annually. a) ICE reviews and endorses as being correct." No evidence of annual as-built factual reports for the NOEF have been provided and this is considered part compliant as they are a requirement of Appendix G of the MMP. There were no other instances of not meeting the MMP identified in the audit period.	currently being prepared. The EMR 2022-2023 stated "All drilling during the reporting period was under in accordance with the January 2020 MMP.", "Ore identification and mark-up the reporting period was consistent with the process described in the January MMP.", "MRM operated in accordance with the January 2020 MMP which de: the MRM waste rock classification criteria.", "The clearing and soil stripping activities undertaken in accordance with the 2020 MMP during the reporting []", "During the reporting period, management of the tailings line was under as described in Section 4.4.6 of the January 2020 MMP" and "Each incident wassessed in accordance with the approved Environmental Incident Reporting Protocol, appended to the MMP."
4	4	The Operator may only conduct mining activities identified in the MMP within the Mine subject to any Conditions contained in the Act, this document and the Conditions commitments and systems contained in the MMP.								4	Full Compliance	Sighted figure showing 2023 MMP amendment activities North Clean Drain Ground Disturbance Permit #35917 dated 30May2022. North West NOEF Stage Clearing Boundaries Ground Disturbance Permit #35685 dated 1Apr2022 (before audit period but for work in the audit period). North Clean Additional Ground Disturbance Permit #42155 dated 27Oct2022. Map EMR23 NOEF Construction Progress 2022-2023 EMR 2022-2023 dated 31Aug2023. Submission of proactive 2023 MMP amendment shows that there is a process in place for where any activities outside of the MMP are required and they do not occur until an amendment is approve. Clearing permits include the prompt "Is the clearing work consistent with the current MMP". EMR 2022-2023 Figure 4 shows the mining activities during the audit period. No instances were identified for during the audit period of the Operator conducting mining activities other than as included in the MMP.	MMP amendment submitted 5May2023 for additional clearing requirements Sighted figure showing 2023 MMP amendment activities. The Operator advised that mining activities are only conducted as consistent the MMP.

Authorisation Co	ompliance Work	book - Operator												
5 May 2022 Authorisation Condition No.		Condition/Requirement	Air Quality (dust & culphur dioxide, ransport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing	Song, marine ediments)	Aquatic fauna (fish iver)	legetation & Achabilitation terrestrial, diversion & WOEF)	Naste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
5	5	The mine site is to be developed and operated in accordance with relevant legislation e.g. Environment Protection and Biodiversity Conservation Act 1999, Northern Territory Aboriginal Sacred Sites Act 1984, Territory Parks and Wildlife Conservation Act 1976 and Heritage Act 2011.	S						J. 2	2.11	4	Full Compliance	2021-2022 EPBC Compliance Report November 2021 to November 2022 for EPBC Act Approval 2014/7210 dated 9Feb2023. Annual Compliance Report EPBC 2003/954 1 MAY 2021 – 30 APRIL 2022 for EPBC Act Approval 2003/954 dated 30Sep2022. MRM Aboriginal Cultural Heritage Management Plan - 14Jun2022. MRM Cultural Heritage Management Stakeholder Engagement (CHMSE) Report - 14Feb2020. EMR 2022-2023 dated 31Aug2023 The evidence provided indicates that the mine site is generally operated in accordance with relevant legislation.	The Operator advised that the CHMSE Report has not been updated during the audit period. The Operator also stated that the latest Compliance Reports for the EPBC Act Approvals provided demonstrate that the mine site is developed and operated in accordance with the Environment Protection and Biodiversity Conservation Act 1999.
Mining management	Mining management	The Operator must on 31 August 2021 and on each anniversary of that date (or such other date as nominated by the Operator and approved by the Minister), review the approved MMP and if necessary, amend the MMP.									4	Full Compliance	Correspondence between DITT and Operator relating to Annual Review of MMP (Condition 6). Correspondence between Operator and DITT relating to Annual Review of MMP (Condition 6). EMR 2021-2022 31Aug2022. Correspondence between Operator and DITT relating to 2022-2023 EMR Submission. 2022-2023 EMR dated 31Aug2023. Correspondence between DITT and Operator relating to Annual Review of MMP (Condition 6) "The department acknowledges MRM's compliance with Condition 6 of VOA 0059." Evidence provided in email from MRM to the Department also confirms that the MMP (approved 2020) had been reviewed on 31 August as part of the 2021-22 EMR process. It has been identified that future amendments to the approved MMP may be required in 2023. 2021-22 EMR 31Aug2022 Section 6.8 states that: "In consideration of the results presented in this EMR, the Mining Management Plan has been reviewed and it was determined that no updates are currently required in order for MRM's key environmental management objectives to continue to be met." The 2022-2023 MRM submission letter states that: "Amendment to MMP approve by the Department on 17 May 2023. A review of the MMP undertaken in parallel with the EMR preparation, which found that no further amendment was currently required. The next MMP amendment is planned to be submitted in Q2 2024."	f
7	7	The Operator must submit annually all environmental monitoring data which has been collected since the previous data submission. The data submission must be provided in the approved form (being an MS Excel template that can be provided on request) and include laboratory and field data for the following:										Refer to sub conditions	29April2023 annual data package (2021 to 2022 data). Correspondence between Operator and DITT relating to Annual Data Submission. Correspondence between Operator and DITT relating to Annual Data Submission Acknowledge Receipt. Correspondence between Operator and DITT relating to 2022-2023 EMR Submission (after the audit period). The 2022-2023 EMR Submission Letter states that: "The condition does not specify a due date for the submission of the annual data. MRM plan to submit the previous 12 months' data following the submission of the annual EMR, and within the following months."	
7.a	7.a	surface water;		1		1				1	4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator related to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included surface water analyses.	

Authorisation Co	ompliance Workbook - Operator												
5 May 2022 Authorisation Condition No.		Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine	sediments) Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
7.b	groundwater; 7.b			1					1	4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator relating to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included groundwater levels and analytical results.	
7.c	dust;	1							1	4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator relating to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included dust analyses.	
	soil;								1	N/A	Not Applicable		No soil sampling was submitted as it is no longer required and this condition has been removed from the April 2022 Authorisation
7.d	sediments; 7.e		1 1		1				1	4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator relating to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Correspondence between Operator and DITT relating to Q1 2022. The file submitted included fluvial sediment.	
7.e	gas; and 7.f	1							1	4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator relating to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Correspondence between Operator and DITT relating to Q1 2022. The file submitted included sulphur dioxide (SO ₂) monitoring data for when it was undertaken.	
7.f	water transfers and discharges (including dates, times and volumes). 7.g		1						1	4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator treating to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included water transfers and discharges.	No discharges occurred in the 2022-2023 audit period. However the data submitted in the audit period was for the 2021-2022 period that included discharges.

uthorisation Cor	mpliance Work	book - Operator											
		Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine sediments)	Groundwater Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOFF)	Waste (general, mine rock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
8	8	From the date of authorisation of the Overburden Management Project, the Operator must provide an "as built" construction report, for the structures that the approved MMP specifies require "as built" construction reports, at the completion of each structure approved as per the MMP, within 30 days upon construction being finalised.							1	2	Part Compliance (moderate)	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Correspondence between Operator and DITT relating to Condition 48.g - SPROD & SEPROD Construction. Correspondence between DITT and Operator relating to Clarifying compliance requirements for perimeter runoff dams. Correspondence between DITT and Operator relating to Acceptance Letter - TSF Quarterly Reports June 2021 to Sept 2022. Correspondence between Operator and DITT relating to Quarterly Report October 2022 - December 2022. Evidence demonstrated submission of the EPROD and SPROD Construction Reports The EPROD Construction Report dated Nov2022 states "Construction of the ancillar items were completed by November 2020." however, the construction report was not provided for two years. SPROD (lining and spillway) works appear to have been undertaken in 2019 and 2020. TSF Raising — General Specification for Design and Construction states in Section 5.4.8 "Records documenting the construction of the raises are essential for ongoing management and design of future TSF raises. The records should be collated and presented in a Construction Report along with "As-Constructed" drawings and survey for the raise." There has been no evidence provided that the Operator submitted as built construction reports for the TSF Cell 1 Stage 5 or Cell 2 Stage 6 raises that were completed more than 30 days before the end of the audit period and identified as not submitted in the AEPAR 2022. Evidence was provided that the Cell 2 Stage 7 raise construction report was issued to DITT 30May2023 (after the audit period).	The Authorisation dated 17May2023 includes Condition 8.a. "annually submit to to Department, unless otherwise agreed to in writing b the Department, a list of structures scheduled to be constructed in the coming year that will have an "asconstructed" construction report developed subject to Condition 48(g) and in accordance with the approved MMP" and for Condition 8.b. "submit the "asconstructed" construction reports subject to the above condition for each structure to the Department within 60 days, or an alternate date agreed to by the Department in writing, upon construction being finalised." This will ensure a clear annual requirement for what "as-constructed" construction reports are required. Letter DITT to Operator dated15Feb2023 states "In addition, for MRM to deliver against Condition 48(g) of the Authorisation, it is requested that the following
9	9	The Operator must submit on or before 31 August 2021 and on each anniversary of that date (or such other date as nominated by the Operator and approved by the Minister), an EMR for the previous year in the reporting period as agreed with the Department.							1	4	Full Compliance	EMR 2021-2022 dated 31Aug2022. Correspondence between Operator and DITT relating to 2021-22 Environmental Monitoring Report. Correspondence between Operator and DITT relating to 2022-2023 EMR Submission (after the audit period).	
urity and levy	Security and levy												
10	10	The Operator must provide to the Minister a security of \$476,476,968 in the form of cash or an unconditional bank guarantee prior to undertaking any mining activities authorised by this Variation of Authorisations 0059-01 and 0059-02.								4	Full Compliance	Independent Monitor sighted email evidence of payment of the increase in the security of \$71,360,300 via \$40,000,000 and \$31,360,300 and receipted by NT government 20May2022. Correspondence between Operator and DITT relating to Approval - MRM's 2022 UCP and VOA 0059. Correspondence between DITT and Operator relating to Approval - MRM's 2022 UCP and VOA 0059.	The security provided to the Minister has increased from \$405,116,668 in Authorisation 18Jun2021 to \$476,476,968 on 5May2022.
11	11	The security provided for under Condition 10 will be reassessed, and may be revised, following the submission, assessment and approval of an:									Refer to sub conditions		
11.a	11.a	independent third party assessment of the security by a qualified person approved by the Minister (also refer Condition 40);								N/A	Not Applicable	The Operator outlined that there were no independent third party assessments of the security other than that which related to the Unplanned Closure Plan covered in condition 11.c, below.	
	11.b	amended MMP;								N/A			Not triggered as there were no amended MMPs in the audit period.

Authorisation Co	mpliance Work	kbook - Operator												
5 May 2022 Authorisation Condition No.		Condition/Requirement	'Air Quality (dust & rulphur dioxide, ransport)	ourface Water (River, Creek, Artificial dams) Marine Waters (Bing 3ong, marine	ediments) Groundwater	Aquatic fauna (fish iver)	fegetation & rehabilitation terrestrial, diversion & NOEF)	Naste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
11.c	11.c	amendment to the Unplanned Closure Plan.									4	Full Compliance	2023 UCP Submission dated 30Sep2022 Independent Audit of 2023 UCP dated 23Jan2023 Operator to DITT subject FW: MRM 2023 Unplanned Closure Plan and Security Assessment dated 23Jan2023. MRM Unplanned Closure Plan dated Jan2023. MRM Security Calculation 2023 dated 30Sep2022. MRM Security Calculation 2023 Supporting GIS dated 2023. MRM Security Calculation 2023 Final 2022 Comparison dated 30Sep2022. Correspondence between MRM and DITT relating to Updated Unplanned Closure Plan and Independent Security Assessment. Correspondence between Operator and DITT relating to 2023 Unplanned Closure Plan and Security Assessment. Correspondence between Operator and DITT relating to 2022 Unplanned Closure Plan. Rehabilitation Security Audit 2023 dated 15Dec2022. Correspondence between Operator and DITT relating to Unplanned Closure Plan and Independent Security Audit. Correspondence between Operator and DITT relating to Unplanned Closure Plan and Independent Security Audit. The security Assessment.	An amendment to the Unplanned Closure Plan was submitted in August 2021 (before the audit period) and was approved on 5May2022 (in the audit period). Operator changed to requesting a three year approval and inclusion of Unplanned Closure to provide more surety around the approval timing to not disrupt operations. Assessment undertaken by Phronis Consulting. Another amendment to the Unplanned Closure Plan was submitted on 30Sept2022. Phronis Consulting prepared an independent assessment that was submitted to DITT on 23Jan2023. DITT are yet to provide an approval. (The Operator has been liaising with DITT on comments and submitted a revised security on 5May2023 and a new Authorisation is expected).
12	12	The revised security amount to be provided under Condition 10 is to be provided prior to creating the new disturbance, covered under the revised security as per written notification from the Department. For the avoidance of doubt, the Operator must provide the revised security amount in the form of cash or an unconditional bank guarantee to the Minister.									4	Full Compliance	Ground disturbance permit #37147 South East Alpha foundation work clearing boundaries (dated 11Aug22). The ground disturbance permit provided for the South East Alpha foundation work clearing boundaries was approved after the security deposit had been paid.	New security May 2022 took operations out to life of mine for major domains (ancillary works like clearing would still occur as required annually, etc). This requires additional security payment by the Operator but allows for more flexibility in delivery on site (i.e. approval obtained for more advance so no hold up to works). The next security was approved May 2023. The Operator advised "The first evidence of clearing occurring in accordance with activities solely outlined in the 2022 UCP were approved on the 11th of August 2022 and were associated with the development of the NOEF South East Alpha foundation."
13	13	Each financial year, upon receipt of a written notice by the Minister as to the levy payable for that financial year, the Operator must pay a levy to the Mining Remediation Fund of an amount calculated in accordance with the Act and as stated by the Minister in the notice.									4	Full Compliance	Receipt for payment of \$4,764,768 September 2022. Correspondence between DITT and Operator relating to Variation of Authorisation 0059 and Security Request. Correspondence between DITT and Operator relating to Variation of Authorisation 0059, Unplanned Closure Plan and Security Request. Correspondence between DITT and Operator relating to G0124808 MCARTHUR RIVER MINING PTY LTD (MRM). The payment was made as required.	
Overburden Manager		The following conditions were introduced in the previous variation, dated 15 August 2019 to reflect the intent of the thirty recommendations made by the NT EPA in the making of their Assessment Report 86 published July 2018. The NT EPA articulated an overarching environmental objective to be achieved during operation of the Mine: to ensure the health of McArthur River is protected along its whole length at all times from mine related impacts. The Minister accepted the recommendations as overarching conditions for the life of the project and have been retained to achieve transparency.									-			Explanatory note and therefore not audited.
14	14	The Operator must ensure activities related to the McArthur River Overburden Management Project are implemented in accordance with:										Refer to sub conditions		

Authorisation Co	ompliance Workbook - Operator											
Authorisation	18 June 2021 Authorisation Condition/Requirement Condition No.	Air Quality (dust & sulphur dioxide, transport)	Creek, Artindal dams) Marine Waters (Bing Bong, marine sediments)	Groundwater	Aduate fauna (1911) river) Vegetation & Rehabilitation	NOEF) Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
14.a	all environmental commitments and safeguards identified in the final Environmental Impact Statement for the McArthur River Mine Overburden Management Project (draft Environmental Impact Statement, Supplement to the draft Environmental Impact Statement and additional information);								3	Part Compliance (High)	2021-2022 Reconciliation of Commitments and Actions Register undated. The Operator has outlined that the Register will be updated as part of the EMR process in August. The review identified that all the OMP EIS commitments provided in the MMP (Appendix M) were addressed in the EMR; however, other commitments identified in the MMP (Appendix L) were not addressed. Notwithstanding, from the 13 commitments identified in the MMP (Appendix L), all appear to be addressed to some extent within the OMP EIS commitments, apart from one commitment, i.e., 'Install additional groundwater monitoring at Bing Bong'. In total, 230 commitments were identified in the EMR. Of these, 158 commitments were identified to be ongoing (i.e., relating to ongoing committed activity at the Mine), eight commitments were identified to be complete (i.e., no further action required), and 64 commitments were identified to be not currently relevant (e.g., commitments relating to specific actions during closure stage). Of the 158 ongoing commitments, the EMR 2023 provided by the Operator indicated that six commitments may be incompletely addressed.	
14.b	recommendations in the NT EPA Assessment Report 86 where they are approved under an MMP;								N/A	Not Applicable		Given the NT EPA recommendations audit of the Department identified that all NT EPA recommendations are incorporated as conditions in the Authorisation, audit of this condition is covered under other relevant Authorisation conditions.
14.c	if there is any inconsistency between the above documents, the most recent authorisation shall prevail to the extent of any inconsistency.								N/A	Not Applicable		No inconsistency was found.
15	The Operator must provide written notice to the Minister and NT EPA if it alters or proposes to alter the McArthur River Mine Overburden Management Project and/or commitments, safeguards or mitigation measures in the Environmental Impact Statement in such a manner that the environmental significance of the action may have changed. The referral should be made in accordance with the Environment Protection Act 2021.								N/A	Not Applicable		The Operator advised they have not triggered any activities involving major changes that would require written notice to Minister or NT EPA in the audit period. Note the June 2021 Authorisation states ", in accordance with clause 14A of the Environmental Assessment Administrative Procedures 1984."
16	Within 18 months of the date of authorisation of the Overburden Management Project, unless otherwise agreed in writing by the Department, the Operator must submit a plan to the Department for review, that:								4	Full Compliance	Water Management Plan 13May2022. Correspondence between Operator and DITT relating to Water Management Plan Update.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan). Operator has submitted the updated plan
16.a	Enables measurement of total loads of lead and zinc and is consistent with requirements of Condition 27; 16.a	1			1		1	1	4	Full Compliance	Water Management Plan 13May2022. Section 4.5.1 of the WMP states that: "Lead and zinc loads are estimated in managed release on a daily basis using measured discharge volumes and managed release water quality. System modelling is used to estimate groundwater loads, calculated for each of the surface water zones using results from MRM's routine groundwater monitoring and an analytical approximation for groundwater flow."	
16.b	Quantifies and ensures annual loads of lead and zinc discharged to the McArthur River in future years (July to June) do not exceed the loads discharged in 2017-2018 (as per Condition 68(e)) taking into account seasonal variations in rainfall, and subject to future annual load calculations; 16.b	1			1		1	1	4	Full Compliance	Water Management Plan 13May2022. Section 4.5.1 of the WMP states: "The daily lead and zinc loads are estimated by multiplying the daily managed release volumes and the concentration data for each of the managed release points. The loads discharged from all release points are then be summed for the reporting period, which represent the annual mine derived loads contribution from managed releases.' Section 4.5.3 of the WMP states: "Comparison of annual baseflow loads between years would be undertaken to quantify trends and compare baseflow loads to the 2018 EIS predictions."	

Authorisation Co	ompliance Workb	oook - Operator												F.: January 2022
Authorisation		Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023 Comments 2023
		addresses recommendations and outcomes arising from audits of loads by the Independent Monitor;												No audits of loads have been undertaken by the Independent Monitor.
16.c	16.c			1			1			1	1	N/A	Not Applicable	This condition is marked as completed in the Authorisation dated 17May2023. OBS: Although an audit of loads has not been conducted by the Independent Monitor, this requirement is now redundant as the condition has been removed from the Authorisation dated 17May 2023.
16.d	16.d	include sufficient detail to inform the development of monitoring and management measures (including but not limited to early warning alerts and intervention levels), as part of the site wide AMP (Condition 45);		1			1			1	1	4	Full Complianc	Water Management Plan 13May2022. The WMP has been used to develop the monitoring and management measures and TARP (including trigger levels) incorporated in the AMP. Section 4 of the WMP states that: "MRM maintains an Environmental Monitoring Schedule (Appendix D) that outlines the most up-to-date water monitoring plans for the Mine site. To ensure monitoring remains relevant and consistent with the WMP's key environmental and operational objectives, the monitoring schedule is updated on a routine basis in response to changing site needs, amendments to regulatory documents and revisions to risk assessments."
16.e	16.e	once approved by the Department, be implemented by the Operator.										N/A	Not Applicable	Water Management Plan 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted (Received 19012023). MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes. The Mining Officer notes for Jan2023 indicated that DITT had advised MRM at TWG that condition 16 had been satisfied verbally, and letter from delegate to follow." No formal approval of the plan has occurred.
		By 13 May 2022, the Operator must:												June 2021 Authorisation triggered this condition 18 months from 13Nov2020 which is the same as by 13May2022. Water Management Plan - Related conditions: 16+17 (water quality) & 26+27
17	17												Refer to sub conditions	(synthesised plan)
17.a	17.a	submit a plan to the Department for review, that shall include:		1			1				1	4	Full Complianc	Water Management Plan dated 13May2022. This condition is marked as completed in the Authorisation dated 17May2023.
17.a.i	17.a.i	site-specific trigger values determined in accordance with Australian and New Zealand Guidelines for Fresh and Marine Water Quality, 2018 framework, incorporating ANZECC (2000) guidelines, at appropriate monitoring locations, in accordance with Condition 27;		1			1			1	1	4	Full Complianc	Water Management Plan dated 13May2022. This condition is marked as completed in the Authorisation dated 17May2023. The WMP refers to the WDL SSTVs as the levels can be amended by DEPWS.
17.a.ii	17.a.ii	a commitment that creeks on the mine site show long-term improving trends in water quality within 20 years after cessation of mining;		1			1			1	1	4	Full Complianc	Water Management Plan dated 13May2022. Section 3.3 of the WMP states: "The key operational objectives of the MRM water management system and the principal strategies used to achieve them are outlined below: 2. Achieve a recovering trend in the water quality and ecosystem function in creeks on the Mine site within 20 years of cessation of mining".

Authorisation Co	ompliance Work	book - Operator													
5 May 2022 Authorisation	18 June 2021	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
17.a.iii	17.a.iii	methodology to calculate contaminant loads and contaminant concentrations entering creeks and the McArthur River using system modelling that must:	-	1			1				1		Refer to sub conditions		Note previously stated "mine site to show"
17.a.iii.a	17.a.iii.a	use suitable site-specific data collected as part of Condition 26;		1			1				1	4	Full Compliance	Water Management Plan dated 13May2022. Section 4.5.2 of the WMP states: "System modelling is used to estimate groundwater loads, calculated for each of the surface water zones using results from MRM's routine groundwater monitoring and an analytical approximation for groundwater flow."	This condition is marked as completed in the Authorisation dated 17May2023.
17.a.iii.b	17.a.iii.b	be subject to review by the relevant independent panel;		1			1				1	N/A	Not Applicable		Future item. Independent panel not established in the audit period.
17.a.iii.c	17.a.iii.c	detail specific assumptions to be tested including but are not		1			1				1		Refer to sub		This condition is marked as completed in the Authorisation dated 17May2023.
17.4.111.0	17.d.III.C	limited to: groundwater flow paths;		1			1				1		conditions	Water Management Plan dated 13May2022.	This condition is marked as completed in the Authorisation dated 17May2023.
17.a.iii.c.i	17.a.iii.c.i					1					1	3	Part Compliance (High)	Section 4.5.2 of the WMP states: "Following the estimation of loads for each year, the process will be refined using the data collected, including through testing of assumptions regarding: • groundwater flow paths; • attenuation of metals from mine derived wastes." No detail was found related to specific assumptions to be tested.	Section 4.5.2 of the WMP states "Estimated loads were obtained by multiplying the estimated groundwater flow to each reach by the recorded concentrations of lead and zinc from the groundwater quality records to calculate the load of these contaminants entering the watercourse. Where a range of plausible gradients exists from measured water levels, this range is considered in the calculations. The processes outlined above were conducted separately for the wet and dry seasons to account for the change in groundwater loads due to the seasonal variation in groundwater flux to the various watercourses." No OFI has been prepared as the Authorisation dated 17May2023 has marked this condition as completed.
17.a.iii.c.ii	17.a.iii.c.ii	attenuation of metals from mine-derived wastes;		1		1	1		1		1	3	Part Compliance (High)	Water Management Plan dated 13May2022. Section 4.5.2 of the WMP states: "Following the estimation of loads for each year, the process will be refined using the data collected, including through testing of assumptions regarding: • groundwater flow paths; • attenuation of metals from mine derived wastes." No detail was found related to specific assumptions to be tested.	This condition is marked as completed in the Authorisation dated 17May2023. No OFI has been prepared as the Authorisation dated 17May2023 has marked this condition as completed.
17.b	17.b	once approved by the Department, implement the plan;		1			1				1	N/A	Not Applicable	MRM TWG Meeting Minutes Jan2023. Conditions 16+17 - Mining Officer Notes Jan2023. The Mining Officer notes had for Jan2023 "DITT advised MRM at TWG that condition 16 has been satisfied, and letter from delegate to follow." No formal approval of the plan has occurred.	Future item. No formal approval of the plan has occurred.
17.c	17.c	incorporate the relevant findings from the plan into the AMP.		1			1				1	4	Full Compliance	Water Management Plan 13May2022. AMP Version E 2022 dated May2022. The WMP has been used to develop the monitoring and management measures an Table 8 TARP (including trigger levels) incorporated in the AMP.	This condition is marked as completed in the Authorisation dated 17May2023.
18		The Operator must provide a written response to the Department, if an independent technical panel's, required under Condition 21, review of the models and modelling outputs, and the data collection programs that informed the model development at Condition 17(a)(iii) address recommendations for improvements. All relevant outputs must be used to inform and update the AMP.		1		1	1				1	N/A	Not Applicable		Future item as the panel has not been established. The Operator is in the process of assisting DITT with establishing the panels.

Authorisation Co	omplian <u>ce Work</u>	book - Operator											
5 May 2022 Authorisation	18 June 2021	Condition/Requirement	Air Quality (dust & sulphur dioxide, ransport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Song, marine	Groundwater Aquatic fauna (fish	iver) Jegetation & Rehabilitation ferrestrial, diversion &	VOEF) Naste (general, mine	Cox, cannigs) Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
19	19	Every three (3) years from the date of authorisation of the Overburden Management Project, an independent environmental audit of the Quality Assurance (QA) and Quality Control (QC) procedures and waste rock identification and handling performance must be undertaken and:	7 6/ 2				1		1		Refer to sub conditions		No Operator action in this condition. This was due 13Nov23 but was delayed by COVID restricting travel to site and was subsequently undertaken during this audit period. In accordance with the Independent Monitor's scope task 12, a Waste Rock Handling Procedures audit site visit was undertaken 13 to 15 June 2022.
19. a	19.a	the results of the audit be provided within six (6) weeks to the Department and to the relevant independent panel;					1		1	-	Refer to sub conditions		Waste Rock Handling Procedures audit site visit debrief with DITT was conducted on 16Jun2022. No independent panel was in place. Draft report provided to DITT Dec2022.
19.b	19.b	the Operator must provide a written response to the satisfaction of the Department where findings from the audit and review by the relevant panel includes matters that need to be addressed or areas for improvement.					1		1	N/A	Not Applicable		Future item. The report had not been finalised in the audit period so is considered N/A.
20	20	From date of authorisation of the Overburden Management Project, new areas of the NOEF foundation development (i.e. areas at base level) that do not currently contain PAF wastes must include a low permeability liner of 0.5m thickness and maximum saturated hydraulic conductivity of 1 x 10-9 metres per second above which future PAF, NAF and benign materials are to be stored.					1			4	Full Compliance	NW Stage Foundation Permeability Test Results Jul2022 - Nov2022. NW Stage Foundation sample ITPS (e.g. Excavate to top of Subgrade, Basal CCL and Benign Rock Fill May2022). The spot checks of Permeability Test Results provided indicated that the saturated hydraulic conductivity was smaller than 1 x 10 ⁻⁹ metres per second (e.g., 3.5 x 10 ⁻¹¹ , 1.1x10 ⁻¹¹ , etc) as required. Related to CCL placement the ITP (Excavate to top of Subgrade, Basal CCL and Benign Rock Fill May2022) included "Maximum hydraulic Conductivity 1 x 10-09 m/s" and "Minimum of 500 mm (-0 mm/ +200 mm) thickness and self-shedding profile achieved".	OBS: Monthly construction reports collating permeability test and any non-conformances to Compacted Clay Layer (CCL) thickness or a register of permeability
21	21	The Operator must provide funding and assist the Department to establish and operate an independent panel(s) of experts to advise on matters affecting the environmental performance of the NOEF, TSF and mine closure planning.					1			4	Full Compliance	Meeting Minutes July 2022. July 2022 working group minutes demonstrated that Independent Panels is a line item in the discussions.	
22	22	Within 12 months of date of authorisation of the Overburden Management Project, the Operator must submit a report to the Department for review, detailing the results of relevant studies undertaken to inform the requirements for implementation (including timelines) of a NOEF groundwater seepage interception and recovery system that:			1					4	Full Compliance	A NOEF Interception Scheme Report Authorisation Condition 22 was submitted to DITT on 13Nov2021, which is on the due date. Correspondence between Operator and DITT relating to Variation of Authorisation 0059 Condition 22 Report. DITT provided verbal feedback regarding receipt of the submission at TWG.	The Operator advised that at this stage no seepage is expected to report to Barney Creek. This changes at the end of the pit life. On this basis the Operator proposed not to commence construction activities for the interception trench in the short-medium term.

Authorisation Co	ompliance Workbook - Operator													
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition/Requirement Condition No.	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Ring	Bong, marine sediments)	Groundwater Aquatic fauna (fish	river) Vegetation & Rehabilitation	(terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023 Comments 2023	
22.a	controls seepage to the Barney Creek diversion channel and the McArthur River; 22.a		1		1	1				1	4	Full Compliance	Appendix 2 - Letter to Operator subject NOEF Interception Scheme – EPBC Condition 12 Report Jun2020. Table 1 of the NOEF Interception Scheme Report states: "The components of the interception scheme are presented in GHD (2020b). KCB (2020) concludes that the interception scheme would be ineffective if constructed in the short-medium term as the groundwater levels are being drawn down below the invert of Barney Creek. The interception scheme may be required after the Open Pit Lake has been established in approximately 2067. A Trigger Action Response Plan (TARP) for the monitoring and management of groundwater levels has been designed in consultation with third party experts and incorporated into the Adaptive Management Plan required under VOA 0059 Condition 93."	terception Scheme Report states "To ensure basal bes not reach the Barney Creek Diversion Channel prior to , a TARP has been developed and implemented under nent Plan in accordance with Condition 93 of VOA 0059. Ining trigger levels have been set for groundwater levels at W102, Figure 5) located between SEPROD and the Barney ased on the groundwater model prediction to ensure a corrective measures (e.g. initiation of detailed design and ion scheme) prior to significant impacts on the Barney initoring site located between the Barney Creek Diversion ld be included in the TARP to confirm the rate of recovery g the establishment of the Open Pit Lake is as predicted."
22.b	achieves a recovering trend in the Barney Creek diversion channel and the old McArthur River channel (at SW06) water quality within 20 years of cessation of mining;		1		1	1				1	4	Full Compliance	Table 1 of the NOEF Interception Scheme Report states: "As above, the interception scheme would be ineffective within the specified time period, however, MRM is proposing to implement a TARP to ensure that an interception scheme is implemented at an appropriate time if required earlier than anticipated."	ring program and relevant TARP will be updated at a more cessation of mining operations (and the recovery of der to ensure a recovering trend in water quality in the annel (including at SW06) within 20 years of cessation of scompleted in the Authorisation dated 17May2023.
22.c	facilitates achieving requirements of Conditions 16 and 17. 22.c		1		1	1				1	4	Full Compliance	NOEF Interception Scheme Report VOA Condition 22 dated 13Nov2021. Table 1 of the NOEF Interception Scheme Report states: "As described, the interception scheme would be ineffective in the short-medium term, however, the implementation of the TARP will not prevent Conditions 16 and 17 from being addressed."	s completed in the Authorisation dated 17May2023.
23	Within 24 months of date of authorisation of the Overburden Management Project, the Operator must submit a NOEF geosynthetic liner cover system plan to the Department for review. The plan must:							1			4	Full Compliance		NOEF Geosynthetic Liner Cover System Plan will be the Department of Climate Change, Energy, the

uthorisation Co	mpliance Workbook - Operator												5 11 2000	
Authorisation	18 June 2021 Authorisation Condition/Requirement Condition No.	air Quality (dust &	ransport) Surface Water (River,	Creek, Artificial dams) Marine Waters (Bing 3ong, marine	Groundwater	Aquatic fauna (fish iver)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
23.a	outline a process (including timelines) to te criteria) the constructability and effectiven cover options including a geosynthetic line combination; 23.a	ess of geosynthetic liner				7		1		1	4	Full Compliance	NOEF Geosynthetic Liner cover System Plan dated 31Oct2022. Table 1 of the NOEF Geosynthetic Liner cover Systems Plan States: "Testing plan including evaluation criteria is detailed in Performance Parameters to be Monitored (Section4) — Timelines for testing and reporting are detailed in Performance Parameters to be Monitored and Reporting (Section 5)" Evaluation of geosynthetic liner cover options including a GSL/CCL combination is discussed, and testing detailed in the following: — Cover Design Alternatives Considered (Section 2.4.2) — Underliner layer options (Section 2.4.5) — Testing to evaluate a GSL/CCL (Section 4) combination is detailed in Performance Parameters to be Monitored" Operator outlines a forecast that complies with satisfactory processes to test and evaluate aspects relating to the geosynthetic liner/compacted clay layer combination.	
23.b	include implementation of trials on rehabil NOEF;	itated stages of the						1		1	4	Full Compliance	NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022. Table 1 of the NOEF Geosynthetic Liner cover System Plan dated 31Oct2022 States: Completed and currently under-way trials on rehabilitated stages of the NOEF are discussed in 2021 Large-scale Field Trials (Section 3) Testing plan including implementation of trials on rehabilitated stages of the NOEF is detailed in Performance Parameters to be Monitored (Section 4). Operator has presented partial results for rehabilitation trials, as the trials are ongoing.	
23.c	identify relevant performance parameters including but not limited to: 23.c	must be monitored,						1		1	4	Full Compliance	NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022. Section 4.3 discusses the effects that erosion could have upon the liner at the surface. Section 4.7 discusses how the tolerance of the liner could be impacted by the variation in chemical composition of the water to which it may be exposed. Section 4.3 and 4.7 include additional performance parameters that are not specifically listed in Conditions 23.c.i to 23.c.v.	
23.c.i	slope stability during extreme events;							1		1	4	Full Compliance	NOEF Geosynthetic Liner Cover System Plan dated 310ct2022. Section 4.1 details how slope stability is to be monitored and includes how the safety calculations are informed by extreme moisture and phreatic levels expected during foreseeable weather extremes.	
23.c.ii	cover performance as a result of heat ef							1		1	4	Full Compliance	tested, including the tests standards to be used based on soil type and temperature conditions.	
23.c.iii	tolerance of the geosynthetic liner to ex settlement;	pected differential						1		1	4	Full Compliance	NOEF Geosynthetic Liner cover System Plan dated 310ct2022. Section 4.6 details how the tolerance of the geosynthetic liner is expected to be monitored for differential settlement performance including method and frequency of monitoring. Section 4.6.1 outlines that oedometer testing has demonstrated that the maximum settlement of the layer of the geosynthetic liner should be limited to 8mm and at this level of movement the liner is capable of accommodating the movement without excessive stresses developing.	

Authorisation Co	ompliance Workbook - Operator											
5 May 2022 Authorisation	18 June 2021	Air Quality (dust & sulphur dioxide, transport) Surface Water (River,	Creek, Artificial dams) Marine Waters (Bing Bong, marine sediments)	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023 Comments 2023
	veracity of cover longevity predictions;											NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022. Section 4.8 also discusses how the cost, ease of replacement and possible improvements if they become available are considered.
23.c.iv	23.c.iv						1		1	4	Full Compliance	Section 4.8 details how evaluation of design basis and performance monitoring instrumentation are monitored for consistency, accuracy, sensitivity and longevity. "ultimately, longevity predictions come from modelling of the slope and NOFF
	likely long-term maintenance requirements.											NOEF Geosynthetic Liner Cover System Plan dated 310ct2022.
23.c.v	23.c.v						1		1	4	Full Compliance	Section 4.3 details how exposure of the liner to the sun or ongoing erosion or material property variations can impact upon stability and details the method and frequency of monitoring as described in Table 22. Section 4.4 describes how established vegetation needs to be routinely monitored including aspects such as biodegradation and root penetration and what predicative maintenance models will need to be implemented. While there is a focus on maintenance monitoring, there is limited information relating to what the maintenance methods to be implemented include.
	Include reporting of trial results and monitoring outcomes:											
23.d	23.d						1		1		Refer to sub conditions	
23.d.i	23.d.i within three years from the submission of the plan;						1		1	4	Full Compliance	NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022. Correspondence between Operator and DITT relating to Geosynthetic Liner Testing Plan. Operator has presented partial results for rehabilitation trials, as the trials are ongoing.
23.d.ii	every three years thereafter, to the relevant independent panel and the Community Reference Group for review, and shall be audited by the Independent Monitor. The Operator must provide a written response to the Department, if review from the relevant panels and Community Reference Group require matters to be addressed;						1		1	N/A	Not Applicable	Correspondence between Operator and DITT relating to Geosynthetic Liner Testing Plan. Future item. Due prior to 12 November 2025. Independent panel and Community Reference Group was not established in the
23.d.iii	must be used to inform the AMP and closure planning for the mine. 23.d.iii						1		1	4	Full Compliance	NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022. Section 1.1 of the Liner Plan states: "It is intended that the results from testing, modelling and analysis in this plan will be used to finalise the detailed design for the NOEF cover system, and inform the Adaptive Management Plan (AMP) and closure planning for the Mine."
23.e	The NOEF geosynthetic liner cover system plan, once approved by the Department, must be implemented by the Operator. 23.e						1		1	N/A	Not Applicable	Future item. The Operator advised that the plan has not been approved by the Department yet and that a revised plan is being submitted to the Department of Climate Change, Energy, the Environment and Water and will likely be submitted to DITT for review/approval at that time also.
	Within five (5) years of the date of authorisation of the Overburden											Future item. Five years from 13Nov2020.
24	Management Project, the Operator must submit a strategy to the Department that details the long-term disposal management of tailings into the mine pit void, submerged under a suitable depth of pit water. The plan must:						1		1	N/A	Not Applicable	The Operator has commenced early work planning on this strategy
24.a	include strategies on the tailings reprocessing and assessment of residual chemical contaminants that may likely impact on meeting the requirements of Condition 16;						1		1	N/A	Not Applicable	Future item. Five years from 13Nov2020.

Authorisation Co	mpliance Work	kbook - Operator												
5 May 2022 Authorisation Condition No.	Authorisation	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
		be reviewed by the relevant independent panel.												Future item. Five years from 13Nov2020.
24.b	24.b							1		1	N/A	Not Applicable		
25	25	Once approved by the Department, the strategy developed in accordance with Condition 24 must be used to develop a plan five (5) years prior to cessation of mining, for approval by the Department. Any requirement to vary the approved disposal strategy or plan must be:						1		1	N/A	Not Applicable		Future item. Condition triggered by condition 24, which is not until required until five years from 13Nov2020.
25.a	25.a	applied for in writing to the Minister;						1		1	N/A	Not Applicable		Future item. Condition triggered by condition 24, which is not until required until five years from 13Nov2020.
25.b	25.b	based on leading practice and site conditions;						1		1	N/A	Not Applicable		Future item. Condition triggered by condition 24, which is not until required until five years from 13Nov2020.
25.c	25.c	supported by the relevant independent panel;						1		1	N/A	Not Applicable		Future item. Condition triggered by condition 24, which is not until required until five years from 13Nov2020.
25.d	25.d	notified to the NT EPA in accordance with Condition 15.						1		1	N/A	Not Applicable		Future item. Condition triggered by condition 24, which is not until required until five years from 13Nov2020.
26	26	Within 12 months of date of authorisation of the Overburden Management Project, the Operator must review and synthesise all available and relevant information to submit a revised water monitoring plan (surface water and groundwater) to the Department for review, ensuring the plan is capable of identifying and quantifying impacts of mining activities on the environmental values and beneficial uses of the McArthur River.		1		1				1	4	Full Compliance	Correspondence between Operator and DITT relating to McArthur River Mining — Variation of Authorisation 0059 Conditions 26 & 27 (before audit period). Screen shot of email Operator to DITT subject: MRM-DITT Technical Working Group Meeting Minutes March 2022 (before audit period). Screen shot of email Operator to DITT subject: MRM-DITT Technical Working Group Meeting Minutes August 2022. Water Management Plan 13May2022. Correspondence between Operator and DITT related to Water Management Plan Update. EMR 2020-2021 Section 6 dated 31Aug2021. Section 6 of the EMR 2020-2021 states "This section provides a holistic review of the environmental performance at the Mine site over the reporting period. A weigh of-evidence assessment has been undertaken by considering results of key monitoring programs to determine whether there are any areas of environmental risk that require further actions for the protection of the McArthur River beneficial uses and community values from mining impacts." This included a Source Pathway Receptor Conceptual Site Model. The WMP plan (through the monitoring) is capable of identifying and quantifying impacts of mining activities on the environmental values and beneficial uses of the McArthur River.	(synthesised plan). Request was made by Operator to DITT via letter before the audit period stating "MRM kindly requests that the Department endorse the revised submission date of 13 May 2022 for the Condition 26 Water Management Plan.", which was to align this timeframe with the 18 month time of condition 16 related to loads monitoring Refer to technical group working meeting Aug2022 that states "DITT verbally accepted the revised due date of 13 May for submission of loads plan required by condition 26. DITT to provide formal acceptance of the revised due date. It Refer to technical group working meeting from Mar2022 that confirms the reques for extension of time was pending a formal acceptance by DITT. This condition is marked as completed in the Authorisation dated 17May2023.
27	27	The plan required under Condition 26 must:										Refer to sub conditions		Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).

Authorisation Co	ompliance Workbook - Operator												
5 May 2022 Authorisation	18 June 2021 Authorisation Condition/Requirement Condition No.	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing	Bong, marine sediments) Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
27.a	allow for assessment of compliance with Condition 16 and include sufficient detail to inform/develop/update the AMP; 27.a		1		1				1	4	Full Compliance	Water Management Plan dated 13May2022. Section 4.5.1 of the WMP states that: "Lead and zinc loads are estimated in managed release on a daily basis using measured discharge volumes and managed release water quality. System modelling is used to estimate groundwater loads, calculated for each of the surface water zones using results from MRM's routine groundwater monitoring and an analytical approximation for groundwater flow." The WMP includes the monitoring requirements to meet condition 16 and assess compliance. The WMP has been used to develop the monitoring and management measures and TARP included in the AMP.	
27.b	at a minimum:										Refer to sub conditions		This condition is marked as completed in the Authorisation dated 17May2023.
27.b.i	quantify loads of lead and zinc entering the McArthur River each year; 27.b.i		1		1				1	4	Full Compliance	Water Management Plan dated 13May2022. Section 4.5.1 of the WMP states that: "Lead and zinc loads are estimated in managed release on a daily basis using measured discharge volumes and managed release water quality. System modelling is used to estimate groundwater loads, calculated for each of the surface water zones using results from MRM's routine groundwater monitoring and an analytical approximation for groundwater flow."	
27.b.ii	quantify impacts to water quality and trends in groundwater to determine that objectives and targets are being met, including the effectiveness of source control to reduce loads to as low as is reasonably practicable; 27.b.ii			1					1	4	Full Compliance	Water Management Plan dated 13May2022. Section 4.6.2 of the WMP states: "The key objectives of the groundwater quality performance monitoring program are: • Identification of adverse or unexpected trends in groundwater quality that may harm the receiving beneficial uses and community values". WMP 2.5.5.1 states "Sources of contaminants include seepage and associated loads to groundwater from mining infrastructure (e.g. TSF, NOEF and water storages), which have the potential to influence groundwater levels and quality." WMP 2.5.5.2 states "The model simulates groundwater responses to mining operations, closure and post-closure conditions. Sources of elevated contaminants were also simulated within the model. Details of the model setup, calibration, predictions and review process are provided below." TARP process in AMP related to water levels sets performance criteria to demonstrate targets are being met. However, groundwater quality is not detailed.	Due to time extension in condition 26, this condition was applicable on 13May2022. This condition is marked as completed in the Authorisation dated 17May2023. OBS: The WMP could be enhanced by incorporating an evaluation of effectiveness of source control to reduce loads to as low as is reasonably practicable. OBS: Confirmation of groundwater, water quality objectives and targets being met could be enhanced by considering the development and incorporation of a TARP for groundwater water quality into the WMP and AMP.

Authorisation Co	mpliance Workh	pook - Operator													
				r, s)	bn			<u> </u>						Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	vir Quality (dust & ulphur dioxide, ransport)	urface Water (River reek, Artificial dams	Aarine Waters (Bing iong, marine ediments)	iroundwater	ıquatic fauna (fish iver)	egetation & tehabilitation terrestrial, diversion	Vaste (general, mino ock, tailings)	community (local adigenous & public)	Aonitoring & Reporting	Score	Compliance Level		
27.b.iii	27.b.iii	develop appropriate future trigger values for waterways on the mine site and the McArthur River in accordance with the ANZECC Guidelines. In the interim, the trigger values in the most current WDL shall be used;	A S S S S S S S S S S S S S S S S S S S	1	2	9	1	> X X X X X X X X X X X X X X X X X X X	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		1	4	Full Compliance	Water Management Plan dated 13May2022. The Water Management Plan and WDL provide water quality performance criteria. The AMP provides trigger values.	Due to time extension in condition 26, this condition was applicable on 13May2022. This condition is marked as completed in the Authorisation dated 17May2023. The Operator advised "Ten of the water quality site-specific guideline values (SSGVs) recommended in the Condition 28 report were accepted and prescribed by the administering authority as site-specific trigger values (SSTVs) in MRM's amended Waste Discharge Licence 174-13. MRM continues to monitor, investigate and report against the site-specific trigger values as conditioned in the latest version of the WDL. The WDL 174 site-specific trigger values also form the basis of a number of Trigger Action Response Plans in the Mine's Adaptive Management Plan. See Table 8 of AMP-E (May 2022). This further demonstrates how guideline values from the Condition 28 report have been implemented by MRM in day to day operations."
27.c	27.c	be prepared in consultation with the NT EPA;		1		1					1	3	Part Compliance (High)	Water Management Plan dated 13May2022. Correspondence between Operator and DITT relating to Water Management Plan. Conditions 16+17 - DITT Mining Officer Notes Jan2023. Correspondence between DEPWS and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT stated "Additionally, MRM has sough an extension to the consultation timeframe of VOA 0059 Condition 27c) to 31 July 2022 to enable consultation to be expanded to include the NT EPA (in addition to that previously completed with the Department of Environment, Parks and Water Security [DEPWS])." The DITT Mining Officer notes had for Nov2022 that DITT had determined that NT EPA did need to be consulted. The notes indicated that in Dec2022 the Operator presented at an NT EPA meeting. No evidence has been provided showing that NT EPA had been consulted prior to the initial submission of the WMP or by the extension date requested of 31Jul2022.	the addition of organic matter as a parameter for the monitoring program to explain some findings the inclusion of certified reference material for laboratory analysis, which would be used to give confidence that the analysis is accurate." OBS: Comments from the NT EPA should be considered for incorporation into the
27.d	27.d	be prepared in consultation with the relevant independent panel;		1		1					1	N/A			No independent technical panels, required under Condition 21, have been set up.
27.e	27.e	once approved by the Department, be implemented by the Operator;		1		1					1	N/A	Not Applicable Not Applicable	Weekly Water Quality Memo - 19th to 21st February 2023. Weekly Water Quality Memo - 5th and 14th February 2023. 2022/23 Annual Site Water Balance for the McArthur River Mine Water Balance Forecast Report dated 28Jul2023. Surface Water Monitoring Report 2022/2023 dated Jul2023. Annual Groundwater Report 2022/2023 dated Jun2023. Aquatic Fauna Monitoring Early Dry Season dated 10Jan2023. Aquatic Fauna Monitoring Late Dry Season dated 23May2023. Freshwater Aquatic Macroinvertebrate Assessment dated 23May2023. Monitoring of Select Analytes in Fluvial Sediment and Aquatic Fauna dated 24May2023. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023. 2022/23 Site Water Balance for the Bing Bong Loading Facility dated 17Aug2023. Surface Water Monitoring Report 2022/2023 dated 5Jul2023. MRM TWG Meeting Minutes Jan2023. Conditions 16+17 - Mining Officer Notes Jan2023. The Mining Officer notes had for Jan2023 "DITT advised MRM at TWG that condition 16 has been satisfied, and letter from delegate to follow." No formal approval of the plan has occurred. However, implementation is evident from the evidence provided.	Future item. No formal approval of the plan has occurred. The Operator advised "The performance triggers, for monitoring programs such as natural surface water quality and fluvial sediment quality, outlined in the WMP were actioned during the reporting period through the Trigger Action Response Plans in the Mine's Adaptive Management Plan. See Table 8 of AMP-E (May 2022) for evidence of the Trigger Action Response Plans. The water classification scheme described in the Mine's WMP was tracked on a routine basis during the reporting period for key storages through the circulation of an internal weekly water quality memorandum." Examples of the memorandums have been provided.
27.f	27.f	be subject to consultation with the relevant independent panel in the event that the plans requires updating (e.g.to maintain the currency of the monitoring network);		1		1					1	N/A	Not Applicable		No independent technical panels, required under Condition 21, had been set up at the time of the last Water Management Plan update.

Authorisation Co	ompliance Workbook - Operator					~*						Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater Aquatic fauna (fish	river) Vegetation & Rehabilitation (terrestrial, diversion &	NOEF) Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level		
27.g	ensure results of the program: 27.g										Refer to sub conditions		
27.g.i	are reported annually to the Department; 27.g.i		1		1				1	4	Full Compliance	Water Management Plan 13May2022. Sections 4.6.1 and 4.6.3 include reference to annual assessment of groundwater performance indicator bores and the complete groundwater monitoring dataset, respectively with reporting in the EMR. Section 5 refers to contingency measures and states "Management measures will be reported in the EMR". The plan does not explicitly require results of the program to be reported annually to DITT.	OBS: The WMP should be updated to incorporate the requirement to ensure results of the program: • are reported annually to the Department • are audited by the Independent Monitor every three years • be published on the Operator's website.
27.g.ii	are audited by the Independent Monitor every three years;		1		1				1	4	Full Compliance	Water Management Plan dated 13May2022. AMP Version E 2022 dated May2022. Section 8.1 of the AMP states: "The Independent Monitor is required to review the AMP every three years in accordance with NT EPA Assessment Report." However, there is no reference to independent monitor auditing required in the WMP.	OBS: Refer to Condition 27.g.i.
27.g.iii	be published on the Operator's website. 27.g.iii		1		1				1	4	Full Compliance	Water Management Plan dated 13May2022. There is no reference in the WMP to the requirement to publish results of the program on the Operator's website.	OBS: Refer to Condition 27.g.i.
28	Within 18 months of date of authorisation of the Overburden Management Project, the Operator must submit a research and investigation program to the Department for review that establishes the concentration of mine-derived contaminants at which chronic and acute impacts to biota of relevance to the McArthur River system occur using recognised and accepted eco-toxicological testing, and:		1			1				4	Full Compliance	Ecotoxicology Research and Investigation Program (before audit period). Correspondence between DITT and Operator relating to VOA 0059 Condition 28 – Ecotoxicology research and investigation program. Correspondence between DITT and Operator relating to Auth 0059 Condition 28 - MRM Ecotox research and investigation program.	
28.a	the results of this program must be integrated with other relevant programs, monitoring programs and management plans; 28.a		1			1			1	4	Full Compliance	Ecotoxicology Research and Investigation Program. The Operator submitted the Ecotoxicology Research and Investigation Program on 25Oct2021. Correspondence between Operator and DITT relating to Condition 28 Submission - Ecotoxicology Research and Investigation Program states "the following amendments to the WDL site-specific trigger values for the McArthur River have been sought with DEPWS" and "MRM's Adaptive Management Plan (AMP) is directly linked to the site-specific trigger values detailed in the WDL, and would	n

Authorisation Co	ompliance Workb	oook - Operator													
5 May 2022 Authorisation	18 June 2021	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Ring	Bong, marine sediments)	Groundwater	Aquatic rauna (Tish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
28.b	28.b	the plan once approved by the Department must be implemented by the Operator.		1			1				1	4	Full Compliance	Correspondence between DITT and Operator relating to Auth 0059 Condition 28 - MRM Ecotox research and investigation program. Adaptive Management Plan Version E dated 27May2022. WDL174-13 McArthur River Mining dated 27May2021. The Operator submitted the Ecotoxicology Research and Investigation Program on 25Oct2021 and DITT accepted and approved the Ecotoxicology research and investigation program 9Aug2022.	Examples of implementation include the WDL being updated to include SSTVs for Cobalt and Thallium before the audit period. The Operator advised "Ten of the water quality site-specific guideline values (SSGVs) recommended in the Condition 28 report were accepted and prescribed by the administering authority as site-specific trigger values (SSTVs) in MRM's amended Waste Discharge Licence 174-13. MRM continues to monitor, investigate and report against the site-specific trigger values as conditioned in the latest version of the WDL. The WDL 174 site-specific trigger values also form the basis of a number of Trigger Action Response Plans in the Mine's Adaptive Management Plan. See Table 8 of AMP. This further demonstrates how guideline values from the Condition 28 report have been implemented by MRM in day to day operations."
29		By 13 May 2022 the Operator must provide to the department a monitoring program that provides improved understanding of aquatic ecosystems in the McArthur River from changing water flows, levels and quality. The program must:		1			1				1	4	Full Compliance	Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to Draft Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Aquatic Ecology Management Plan EPBC ACT APPROVAL 2014/7210 NOVEMBER 2022 (AEMP) 13Nov2022	Aquatic Ecology Monitoring Plan Rev 1 and 2 were submitted to DITT. Note the June 2021 Authorisation had different wording of the following that has not been audited as it was not triggered: Within 18 months of date of authorisation of the Overburden Management Project, the Operator must submit an aquatic ecosystem monitoring program to the Department for review that provides improved understanding of aquatic ecosystems in the McArthur River from changing water flows, levels and quality, including available dry season habitat. The program must: a. assess impacts of the mine on water levels in refuge pools/waterholes, upstream and downstream of the mine, including in the McArthur River diversion channel; b. assess impacts of the mine on water quality in refuge pools/waterholes in the dry season; c. assess impacts of the mine on the health of aquatic biota in the McArthur River using non-lethal sampling methods; d. be designed to be integrated with requirements of the AMP consistent with Condition 45; e. once approved by the Department, be implemented by the Operator.
29.a		be consistent with the aquatic ecology monitoring and management plan required under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) Approval 2014/7210;		1			1				1	4	Full Compliance	Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) 13Nov2022. Correspondence between Operator and DITT relating to McArthur River Mine – Draft Aquatic Ecology Management Plan. Correspondence between Operator to DITT relating to Aquatic Ecology Management Plan. Section 1.3 of the AEMP states: "The purpose of the AEMP is to formalise MRM's monitoring and management strategy for aquatic ecology, and outline the key components of surface water monitoring. Consistent with those outlined in EPBC Approval 2014/7210 and the NT EPA Assessment Report 86 (NT EPA, 2018)"	Aquatic Ecology Monitoring Plan Rev 1 and 2 were submitted to DITT.
29.b		include monitoring of relevant parameters at appropriate frequencies to allow for implementation of applicable Trigger Action Response Plans (TARPs) included in the Adaptive Management Plan (AMP);		1			1				1	4	Full Compliance	Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Aquatic Ecology Management Plan EPBC ACT APPROVAL 2014/7210 NOVEMBER 2022 (AEMP) 13Nov2022. Correspondence between Operator and DITT relating to Draft Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Section 8 of the AEMP states: "The monitoring program summary also details the Trigger Action Response Plans (TARPs) for each monitoring program. TARPs are implemented by MRM to manage potential adverse environmental conditions, mitigate environmental impacts, inform mitigation options where required and to assess performance against overarching environmental objectives."	Aquatic Ecology Monitoring Plan Rev 1 and 2 were submitted to DITT.

Authorisation Co	ompliance Workbook - C	Operator													
5 May 2022 Authorisation	18 June 2021 Authorisation Condit Condition No.		Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
29. c		plemented by the Operator, once approved by the tment.		1			1				1	N/A	Not Applicable	Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Aquatic Ecology Management Plan EPBC ACT APPROVAL 2014/7210 NOVEMBER 2022 (AEMP) 13Nov2022. Correspondence between Operator and DITT relating to Draft Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Aquatic Fauna Monitoring Early Dry Season dated 10Jan2023. Aquatic Fauna Monitoring Late Dry Season dated 23May2023. MRM TWG Meeting Minutes dated 25Jan2023. DITT approved verbally at the TWG on 25Jan2023 but it is not approved by DITT.	Future item. No formal approval of the plan has occurred. Aquatic Ecology Monitoring Plan Rev 1 and 2 were submitted to DITT. The Operator advised that the Aquatic Ecology Monitoring Plan Rev 2 is being reviewed by an independent third party (as required by EPBC Act approval) and will be updated based on any comments and DCCEEW comments and will then be resubmitted to DCCEEW and DITT. The Aquatic Ecology Management Plan (Rev 2) has not yet been approved by the Department. The Operator advised "The performance triggers outlined in the Aquatic Ecology Management Plan were actioned during the reporting period through the Trigger Action Response Plans in the Mine's Adaptive Management Plan. See Table 8 of AMP-E (May 2022) for evidence of the Trigger Action Response Plans."
30	Northern certificat with (inc	nes, the Operator must conduct works consistent with the in Territory Aboriginal Sacred Sites Act 1989 and valid AAPA ite. All conditions of the AAPA certificate must be complied cluding but not limited to NOEF height restrictions), and ite produced to demonstrate compliance, when requested by ster.								1	1	4	Full Compliance	Ground Disturbance Permit - South East Alpha foundation work - clearing boundaries dated 1Jan2023. Internal document 2023 McArthur River Mine NOEF Height Compliance. Ground Disturbance Permit - North East Bravo Stage Design Boundary dated 15Dec2022. North Clean Drain Ground Disturbance Permit #35917 dated 30May2022. North West NOEF Stage Clearing Boundaries Ground Disturbance Permit #35685 dated 1Apr2022 (before audit period but for work in the audit period). North Clean Additional Ground Disturbance Permit #42155 dated 27Oct2022. Internal document McArthur River Mine NOEF Height Compliance states: "The maximum height of the NOEF measured on the 12/04/2023 was RL: 10115.862m MRM Local Grid and 115.898m MGA. The nominal accuracy is expected to be +/-30mm. The NOEF surface was compared to the 2006 ALS LIDAR surface before rock was placed. The NOEF surface was found to be less than 80 metres above and complian with AAPA conditions for proposed work or use. Note for reference that the Barramundi Dreaming maximum height is 10116.034 MRM local grid and 116.055 MGA." Ground Disturbance Permits include a check of if the works comply with the AAPA certificate.	The Operator advised that the fleet management system contains GPS navigation and alerts if waste rock is mis-placed, and that full details were provided in the 2022 Waste Rock Audit.
31	archaeol writing b Minister	rator must not disturb or encroach within 5m of ogical site MRM4, until a design of the NOEF is agreed in by the Department. Consultation between the Operator and for Arts, Culture and Heritage must be undertaken prior to endorsement of the design.								1	1	4	Full Compliance	North Clean Drain Ground Disturbance Permit #35917 dated 30May2022. EMR 2022-2023 dated 31Aug2023. EMR 2022-2023 states "No disturbance occurred in the area of the MRM4 Cultural Site during the reporting period. The MRM4 Cultural Site has an exclusion fence constructed around it, ranging from approximately 5 – 85 m offset from the actual site as shown in Plate 2, with appropriate 'no access' signage posted along the perimeter (Plate 3). Prior to any disturbance occurring within the fenced off MRM4 area, the following is required: • An Aboriginal Areas Protection Authority (AAPA) Certificate obtained for the required disturbance (including undertaking any activities set out as conditions of the AAPA Certificate). • Approval from DITT in accordance with VOA Condition 31. • Submission to and approval by the MRM Environment and Community Departments of the required Dig and/or Clearing Permit. A recent aerial image of the MRM4 Cultural Site is provided in Plate 4." Plate 3 in the EMR 2022-2023 showed the cultural heritage site MRM4 do not enter signage. Ground disturbance permit #35917 includes the question "Does the area directly of indirectly impact on sites of significant or sacred sites?" and there is commentary there related to avoiding MRM3. While this is not specifically referring to MRM4, the process is the same.	

Authorisation Co	ompliance Work	book - Operator												
5 May 2022 Authorisation Condition No.		Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine	orounuwater Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	e e	mpliance Level	Evidence 2023	Comments 2023
32	32	Within six months of date of authorisation of the Overburden Management Project, the Operator must provide a report to the Minister, and AAPA or the Minister for Arts, Culture and Heritage (where relevant) that demonstrates the consultation process undertaken or provide a plan to the Minister that details consultation activities and timeliness to identify and engage with appropriate custodians and traditional owners with an interest in land that would be or maybe affected by the Overburden Management Project.						1	1	4	Full		Correspondence between General Manager and Minister for Primary Industry and Fisheries related to submission of a report for this condition (before the audit period). Cultural Heritage Management Stakeholder Engagement Report 14Feb2021.	This condition is marked as completed in the Authorisation dated 17May2023.
33	33	Within 12 months of date of authorisation of the Overburden Management Project, the Operator must develop or revise and submit to the Department for review an existing air quality plan that monitors sulfur dioxide emissions at an appropriate location between the NOEF and sensitive receptors determined in consultation with NT EPA.	1					1	1	4	Full	Compliance	(Nov2021). Correspondence between NT EPA and Operator Re: Proposed sulfur dioxide monitoring location (Recommendation 19 of Assessment Report 86) (before the audit period). Air Quality Management Plan dated 1Oct2021. Correspondence between Operator and DITT relating to Adaptive Management Plan & Air Quality Management Plan Submission.	This condition is marked as completed in the Authorisation dated 17May2023.
34	34	The air quality monitoring plan required under Condition 33 must include:										efer to sub onditions		The Operator advised that there had been no changes to the plan in the audit period.
34.a	34.a	objectives, locations, frequency of monitoring, trigger values and reporting commitments to manage and protect any potential air quality risk to human health outside of the mineral lease;	1					1	1	4	Full	Compliance	Air Quality Management Plan dated 1Oct2021. Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021). The AQMP includes objectives, locations, frequency of monitoring and reporting commitments. The AMP (rather than the AQMP) does include a TARP (hence trigger values) for sulphur dioxide but not for depositional dust monitoring or the high volume air sampling. DITT advised that this condition is "related to PAF combustion and SO2 release only" so only the sulphur dioxide trigger values are required. DITT approval letter August 2022 states that the plan was assessed as meeting the requirements of conditions 33, 34 and 35 regarding the AQMP.	Section 1.2 of the AQMP states this AQMP excludes: "Operational Trigger Action Response Plans (TARPs). This detail can be found in the Adaptive Management Plan (MRM, 2021a)."

Authorisation Co	mpliance Work	book - Operator											
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine sediments)	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Scor	Compliance e Level	Evidence 2023 Comments 2023
34.b	34.b	evidence of consultation with the NT EPA to be provided at the time of the plan submission;	1						1	1	4	Full Compliance	Correspondence between Operator and DITT relating to Updated AMP & AQMP (November 2021). Correspondence between NT EPA and Operator relating to Proposed sulfur dioxide monitoring location (Recommendation 19 of Assessment Report 86) (before the audit period). Correspondence between Operator and DITT relating to Adaptive Management Plan & Air Quality Management Plan Submission. Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021). DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 33, 34 and 35 regarding the AQMP.
34.c	34.c	once approved by the Department, be implemented by the Operator.	1						1	1	4	Full Compliance	Environmental Monitoring Schedule Rev 3 dated 25Oct2022. Monthly SO2 reports (online). Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (Nov2021). Photo: SO2 Van Installed undated. Photo: Image 1013 undated. Photo: Image 1021 undated. Photo: Image 1024 undated. Photo: Image 1023 undated. Photo: Image 1053 undated. Photo: Image 1065 undated. Photo: Image 1065 undated. DITT approval letter August 2022 states that the plan was assessed as meeting the requirements of conditions 33, 34 and 35 regarding the AQMP.
35	35	The results of the air quality plan for each reporting frequency must be:										Refer to sub conditions	
35.a	35.a	made available on the Operator's website. Initial monitoring results to be reported within 6 months of the plan being accepted by the Department or an alternative timeframe as agreed in writing with the Department;	1						1	1	4	Full Compliance	Sighted real time data and monthly reports on Operator's website 21Sep21 (before the audit period) and after the audit period including date for the audit period.
35.b	35.b	incorporated where relevant in the AMP.	1						1	1	4	Full Compliance	AMP 2021 dated 10ct2021. Appendix B - Air Quality Management Plan dated 10ct2021. Correspondence between DITT and Operator relating to MRM Amended Adaptive Management Plan (November 2021) - approval. EMR 2021-2022 section 3 states: "The TARPs detailed in the AMP link the key environmental objectives to performance indicators. The AMP also details the actions that will take place if specified criteria are not achieved (such as undertaking an investigation into the source of an elevated analyte concentration). TARPs are assessed on the basis of their level during the reporting period, which is determined by comparing monitoring results to specific trigger levels or criteria." EMR 2021-2022 section 3 states: "Part of the investigation process is also to review the TARPs, and ensure that the trigger levels are appropriate for the protection of the environment. As the AMP and the TARPs have only recently been approved and implemented, it is early in the ongoing review process, and some TARPs may require adjustment."
36	36	Within 24 months of date of authorisation of the Overburden Management Project, the Operator must submit a monitoring and management plan to the Department for review that manages risks of metal toxicity from human consumption of aquatic fauna obtained from the McArthur River. The plan must:		1		1			1	1	4	Full Compliance	Aquatic Ecology Management Plan EPBC ACT APPROVAL 2014/7210 NOVEMBER 2022 (AEMP) dated 12Nov2022. Correspondence between Operator and DITT relating to Draft Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. The Operator advised "The Aquatic Ecology Management Plan was updated (Rev 2) and submitted to the Department on 12 November 2022." The Aquatic Ecology Management Plan (Rev 2) is pending approval by DITT. The Operator outlines that the Aquatic Ecology Management Plan was updated (Rev 2 - November 2022) to address Conditions 36 and 37 of Variation of Authorisation 0059 and submitted to the DITT on time. This plan is yet to be approved by the DITT.

Authorisation Co	ompliance Workb	pook - Operator													
5 May 2022 Authorisation	18 June 2021	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surrace Water (River, Creek, Artificial dams) Marine Waters (Bing	Bong, marine sediments)	Aquatic fauna (fish	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Scor	re Co	ompliance Level	Evidence 2023	Comments 2023
36. a	36.a	determine if aquatic fauna obtained from any reach of the McArthur River, that may be impacted by the mine's operations, is safe to eat;		1		1			1	1	4	Fu	ıll Compliance	Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) dated 12Nov2022. Section 5.1 of the AEMP states: "Assessed against the Trigger Action Response Plan (TARP) in the Adaptive Management Plan (Version D) to identify if tissue concentrations are within permitted concentrations under the Food Standards Code and to determine if additional controls or management actions are required to reduce tissue concentrations"	This condition is marked as completed in the Authorisation dated 17May2023.
36.b	36.b	include demonstrated evidence of consultation with NT EPA;		1		1			1	1	4	Fu	ull Compliance	Management Plan.	OBS: Comments from the NT EPA should be considered for incorporation into the
36.c	36.c	detail public reporting of the monitoring results, including at appropriate locations in the Borroloola region;		1		1			1	1	4	Fu	ıll Compliance	Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) dated 12Nov2022. Section 9 of the AEMP states: "The results of the aquatic ecology monitoring programs described in Section 4 are reported annually to the DITT through the MRM Environmental Monitoring Report (EMR), required under the Mining Management Act 2001. The EMR is made publicly available on the NT EPA website. Specialist consultants, on behalf of MRM, engage Borroloola and surrounding stakeholders both formally and informally as opportunities arise. This includes the presentation of results from the metals in aquatic fauna monitoring program at local community events once a year."	This condition is marked as completed in the Authorisation dated 17May2023.
36.d	36.d	include provisions for implementation and maintenance of signage at waterways at the MRM site in accordance with the requirements of Condition 62 until the risk of contamination from consumption of this aquatic fauna is demonstrated to be acceptable by the Department;		1		1			1	1	4	Fu	ull Compliance	Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) dated 12Nov2022. Section 6.2 of the AEMP states: "Signage will remain in place until the risk of contamination from human consumption of aquatic fauna obtained from the McArthur River is accepted by DITT. It is noted that the Northern Territory Government Department of Health (DoH) has previously released publications regarding safe consumption of fish and molluscs (NT DoH, 2018), recommending that consumption be limited due to metals such as mercury and lead found in fish from all over Australia. Therefore, it is recognised that human consumption of fish and molluscs in the region should be limited, regardless of potential impacts from the Mine."	
36.e	36.e	once approved by the Department, be implemented by the Operator.		1		1			1	1	N/A	A N	lot Applicable	MRM TWG Meeting Minutes Jan2023. DITT approved verbally at the TWG on Jan2023 but it is not officially approved.	Future item. No formal approval of the plan has occurred.
37		Within 24 months of date of authorisation of the Overburden Management Project, the Operator must submit a plan to the Department for review that outlines a monitoring program for management of Largetooth Sawfish. The plan must:									4		ull Compliance	Correspondence between Operator and DITT relating to Draft Aquatic Ecology Management Plan.	address Conditions 36 and 37 of Variation of Authorisation 0059 and submitted to the Department." The Aquatic Ecology Management Plan (Rev 2) is pending approval by DITT.

Authorisation Co	ompliance Worl	kbook - Operator												
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	n Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing	Bong, marine sediments) Graindwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
		include a sampling strategy for Largetooth Sawfish that is non- lethal;											Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) 13Nov2022.	This condition is marked as completed in the Authorisation dated 17May2023.
37.a	37.a					1				1	4	Full Compliance	Section 3 of the AEMP states: "Captured Freshwater Sawfish are implanted with acoustic transmitter tags which are individually coded and cattle style tags for easy identification on recapture."	
37.b	37.b	include details of parameters and criteria, from which the results could be used to define specific (measurable and time-bound) performance indicators to abate a significant decline in Largetooth Sawfish movement;				1				1	4	Full Compliance	Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) 13Nov2022. Section 3 of the AEMP states: "When a tagged animal is within approximately 250 r of an acoustic receiver, a date, time, and tag number is recorded. This data allows for the location of the individual animal to be tracked throughout the catchment, and can determine residence time periods within certain pools or time taken to migrate between acoustic receivers. This data can be used to determine whether the Diversion Channel is suitable for fish movement."	
37.c	37.c	include trigger levels for investigation and implementation of management measures;				1				1	4	Full Compliance	Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) 13Nov2022. Section 4 of the AEMP states: "For the purpose of defining trigger levels to identify potential impacts on the <i>P. pristis</i> population resulting from MRM operations, the use of static criteria (e.g. percentage change in abundance) is not considered appropriate in this instance. This is due to the mobile nature and naturally low abundance of this species (generally one individual per site), whereby they can remain undetected or be absent at a number of sites where they have been previously reported, resulting in significant variation between years. As a result, trigger levels are assigned to each of the identified performance indicators consistent with MRM's AMP. The Level 2 trigger value specified indicates that performance is still within the range of relevant guidelines, predictions and/or conditioned limitations, however, investigation is necessary as to whether preemptive mitigation and/or management measures are required. The Level 3 trigger indicates that performance is outside of the expected or predicted levels, and further investigation and review of current mitigation and management measures i required."	
37.d	37.d	once approved by the Department, be implemented by the Operator.				1				1	N/A	Not Applicable	MRM TWG Meeting Minutes Jan2023. DITT approved verbally at the TWG Jan2023 but it is not officially approved.	Future item. No formal approval of the plan has occurred.
38	38	Within six months following the establishment of the required panels and groups in accordance with Condition 21, the Operator must:										Refer to sub conditions		Future item. Panels and groups not set up.
38.a	38.a	develop environmental objectives for a Care and Maintenance Plan in consultation with the relevant Independent Panels, CRG, custodians and traditional owners;							1	1	N/A	Not Applicable		Future item. Panels and groups not set up.
38.b	38.b	submit this to the Department for review.								1	N/A	Not Applicable		Future item. Panels and groups not set up.
39	39	Within five years of date of authorisation of the Overburden Management Project, the environmental objectives arising from Condition 37 must be used to develop a Care and Maintenance Plan in consultation with the Department.					1			1	N/A	Not Applicable		Future item. Within five years from 13 Nov2020. Note June 2021 Authorisation refers to condition 38 and this condition is also referring to condition 38 in the Authorisation dated 17May2023.
40	40	The Operator must facilitate an independent third-party assessment of the security for rehabilitation of disturbances resulting from authorised activities in the approved MMP that is consistent with requirements under Conditions 10, 11 and 12, to the satisfaction of the Department, and every 3 years thereafter if the security has been re-calculated or adjusted.								1	N/A	Not Applicable		Not triggered until 3 years after the 13Nov2020. However, independent third-party assessments of the security have been done as per the evidence included for conditions 10 to 13.

	18 June 2021 Authorisation Condition No.	book - Operator Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing	sediments) Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
41	41	The Operator, consistent with Condition 40, must:										Refer to sub conditions		
41.a	41.a	commission a qualified person to review the security amount whose appointment is accepted by the Minister;								1	N/A	Not Applicable		Not triggered because condition 40 isn't triggered until 3 years after the 13Nov202. However, independent third-party assessments of the security have been done as per the evidence included for conditions 10 to 13. OBS: Requirement to get the independent third-party reaccepted for review of security before due date of 13 Nov 2023.
41.b	41.b	ensure that the security is reviewed and delivered to the Department within six months of acceptance of the qualified person.								1	N/A	Not Applicable		Not triggered because condition 40 isn't triggered until 3 years after the 13Nov2020. However, independent third-party assessments of the security have been done as per the evidence included for conditions 10 to 13. OBS: DITT should consider changing the wording of this condition if reapproval of the qualified person to undertake the independent third-party assessment of the security is not required.
42	42	For every approved MMP and MMP amendment, the Operator must provide a revised copy of the approved document that removes commercially sensitive information, includes an overview and environmental section, and is suitable for publication on the Department's website, or provide written approval to make the complete documents publicly accessible.							1	1	N/A	Not Applicable	Correspondence between Operator and DITT relating to 2020 Mining Management Plan - Public Version (before audit period).	The Operator confirmed there were no new MMPs in the audit period. Independent Monitor confirmed that the January 2020 MMP with commercially sensitive information removed is on DITT's website (checked 22Sep21 and 26Jul2022). Emails provided between Operator and DITT show that the January 2020 MMP including an overview and environmental section, with commercially sensitive information removed, was provided to the DITT.
43	43	The Operator must assist, as required, the Department to establish and operate a Community Reference Group (CRG).							1		4	Full Compliance	Meeting Minutes July 2022.	The Community Reference Group is not yet established. The Operator understood that the chair had been appointed and DITT were in the process of appointing the members in the audit period. The CRG held their inaugural meeting on-site 27Jul2023 which was a familiarisativisit (after the audit period).
44	44	Within 18 months of date of authorisation of the Overburden Management Project, the Operator must undertake a synthesis of all environmental monitoring programs (Condition 26) that assess impacts of mining activities on the environmental values and beneficial uses of the McArthur River, in accordance with NT EPA's overarching environmental outcome. The revised monitoring programs must:		1		1				1	4	Full Compliance	Correspondence between Operator and DITT relating to Variation of Authorisation 0059 - Condition. EMR 2020-2021 section 6 dated 31Aug2023. EMR 2020-2021 section 6 discussion SPR model and monitoring results conclusions and recommended action (synthesis of all monitoring programs). Synthesis was undertaken under condition 26 and DITT has approved that and marked this condition as completed in the Authorisation dated 17May2023.	agreement was obtained from DITT. Correspondence between Operator and DITT states "The Adaptive Management

Authorisation Co	mpliance Workbook - Operator													
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition/Requirement	Air Quality (dust & sulphur dioxide, rransport)	surface Water (River, Creek, Artificial dams)	Marine Waters (Bing 3ong, marine sediments)	Groundwater Aquatic fauna (fish	iver) Vegetation &	terrestrial, diversion & NOEF)	Waste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
44.a	use outputs generated for review and synthesis of water monitoring programs, as part of addressing Condition 26; 44.a		1			1				1	4	Full Compliance	Correspondence between Operator and DITT relating to Variation of Authorisation 0059 - Condition 44. EMR 2020-2021 dated 31Aug2021. A response from DITT to an email the Operator sent at the beginning of the audit period is pending.	The Operator believes that discussion in the EMR fulfills this requirement and verbal agreement was obtained from DITT. Correspondence between Operator and DITT states "MRM submitted the 2020-2021 Environmental Monitoring Report (EMR) on 31 August 2021 []. The EMR provides a synthesis of all environmental monitoring programs implemented at the Mine, including water monitoring programs. Trend analysis was undertaken, considering key elements of the source-pathway-receptor conceptual site model, as detailed in Section 6 and the Executive Summary. Each monitoring program is explored in detail within the EMR, including methods of data collection and revisions made to the program over the reporting period of 1 May 2020 to 30 April 2021 (see Sections 3 and 4)." This condition is marked as completed in the Authorisation dated 17May2023.
44.b	demonstrate how all monitoring data collected under various monitoring programs and management plans were considered and synthesised (e.g. conceptual site models, trend analysis); 44.b		1			1				1	4	Full Compliance	Correspondence between Operator and DITT relating to Variation of Authorisation 0059 - Condition 44. EMR 2020-2021 dated 31Aug2021. A response from DITT to an email the Operator sent at the beginning of the audit period is pending.	The Operator believes that discussion in the EMR fulfills this requirement and verbal agreement was obtained from DITT. Correspondence between Operator and DITT states 'MRM submitted the 2020-2021 Environmental Monitoring Report (EMR) on 31 August 2021 []. The EMR provides a synthesis of all environmental monitoring programs implemented at the Mine, including water monitoring programs. Trend analysis was undertaken, considering key elements of the source-pathway-receptor conceptual site model, as detailed in Section 6 and the Executive Summary. Each monitoring program is explored in detail within the EMR, including methods of data collection and revisions made to the program over the reporting period of 1 May 2020 to 30 April 2021 (see Sections 3 and 4)." This condition is marked as completed in the Authorisation dated 17May2023.
44.c	be incorporated in the AMP. 44.c		1			1				1	4	Full Compliance	Correspondence between Operator and DITT relating to Variation of Authorisation 0059 - Condition 44. EMR 2020-2021 dated 31Aug2021. A response from DITT to an email the Operator sent at the beginning of the audit period is pending.	The Operator believes that discussion in the EMR fulfills this requirement and verbal agreement was obtained from DITT. Correspondence between Operator and DITT states "The conclusions of the 2020-2021 EMR and other annual reports have been incorporated into the latest the AMP for the Mine. Trigger-Action-Response Plans (TARPs) integrate trend analysis into the level system, triggering actions based on identified trends in monitoring data. TARPs have been developed based on the source-pathway-receptor conceptual site model, allowing undesirable conditions to be identified at all stages. Section 5 of the AMP provides further details of how the various monitoring programs have been synthesised and enable more effectively identification and management of impacts at their source. Additionally, Section 8 of the AMP provides for ongoing review and update as necessary. Therefore, MRM considers that the review of its environmental performance and adequacy of the environmental management plans required by Condition 44 of the VOA is addressed by the EMR." This condition is marked as completed in the Authorisation dated 17May2023. OBS: The AMP and associated WMP should be updated annually if the EMR identifies a change is required.
45	Within 18 months of date of authorisation of the Overburden Management Project, the Operator must submit an AMP to the Department:									1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	Submitted to DEPWS as part of WDL requirement and was submitted to DITT.
45.a	The AMP must include the following key elements: 45.a											Refer to sub conditions		

Authorisation Co	mpliance Work	pook - Operator											
	18 June 2021 Authorisation	Condition/Requirement	air Quality (dust & sulphur dioxide, transport) Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater Aquatic fauna (fish	river) Vegetation & Rehabilitation (terrestrial, diversion &	Waste (general, mine rock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
45.a.i	45.a.i	clear, measurable environmental objectives for all significant environmental risks and potential impacts;							1	4	Full Compliance	Correspondence between Operator and DITT relating to Variation of Authorisation 0059 - Condition 44. EMR 2020-2021 dated 31Aug2021. A response from DITT to the email Operator to DITT dated 2May2022 is pending.	Submitted to DEPWS as part of WDL requirement on 10ct2021 and was submitted to DITT. For additional evidence refer to the Independent Monitor's Review of the Adaptive Management Plan (July 2023). This condition is marked as completed in the Authorisation dated 17May2023.
45.a.ii	45.a.ii	measureable performance indicators to show that objectives are on target to be met;							1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. Measurable performance indicators are included as triggers for actions in AMP Revision E, Tables 7 and 8, defining how they are measured. These performance indicators are linked to the relevant key environmental objective. For additional evidence refer to the Independent Monitor's Review of the Adaptive Management Plan (July 2023).	This condition is marked as completed in the Authorisation dated 17May2023.
45.a.iii	45.a.iii	pre-determined triggers to warn of potential for performance indicators to be exceeded, as informed by monitoring;							1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. The TARP includes three separate environmental performance trigger levels to evaluate monitoring results. The trigger levels for monitoring of water, air quality and rehabilitation are listed in AMP-Revision E, Table 8.	
45.a.iv	45.a.iv	realistic and achievable contingency interventions to maintain performance indicators if triggers are consistently exceeded;							1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. A list of contingency measures to describe what would occur in response to the TARP process are included in AMP-Revision E, Table 9. Possible measures range from simple actions to complex processes. Summary detail is provided relating to how and when these contingency measures will be implemented and a justification that the potential measures are realistic and/or achievable. The AMP states the most appropriate contingency measure/s would be selected based upon the TARP trigger and requires the effectiveness of implementation of the contingency measure/s to be reported in the EMR. For additional evidence refer to the Independent Monitor's Review of the Adaptive Management Plan (July 2023).	This condition is marked as completed in the Authorisation dated 17May2023.

Authorisation Co	ompliance Workbook - Operator											
Authorisation	18 June 2021 Authorisation Condition/Requirement Condition No.	Air Quality (dust & sulphur dioxide, transport)	Creek, Artificial dams) Marine Waters (Bing Bong, marine sediments)	Groundwater Aquatic fauna (fish	river) Vegetation & Rehabilitation (terrestrial, diversion &	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
45.a.v	clearly defined management measures/actions that are capable of being implemented in a timely way to meet performance indicators and environmental objectives; 45.a.v							1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. The management measures/actions are defined in the Management Plans and Monitoring Programs. The Monitoring Programs are listed in AMP-Revision E, Tabl. 6: Environmental Monitoring Program Summary. They include monitoring sites, monitoring parameters/analytes and monitoring frequency. The Management Plan include measures/actions, however, the timelines associated with measures and actions will depend upon the potential TARP trigger level. The TARP investigation process will determine the contingency measure/s required and timeframes for implementation. For additional evidence refer to the Independent Monitor's Review of the Adaptive Management Plan (July 2023).	This condition is marked as completed in the Authorisation dated 17May2023. OBS: Further detail on potential contingency measures timelines for the implementation of management actions in Table 9 (AMP Revision E) should be provided.
45.a.vi	monitoring in accordance with relevant Recommendations in NT EPA Assessment Report 86 to determine whether management measures are effective and to inform the need for adjustments to management measures or need for alternatives; 45.a.vi							1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. There is a stated intention that the AMP will be reviewed annually as part of the Operator's environmental performance reporting. However, a review to evaluate the effectiveness of management measures/actions to inform the need for adjustments or alternatives is implied but not specifically required in AMP Section – Review and Update. For additional evidence refer to the Independent Monitor's Review of the Adaptive Management Plan (July 2023).	This condition is marked as completed in the Authorisation dated 17May2023. OBS: Incorporate further information on the processes to assess the effectiveness o the Monitoring Programs and enable adaptive adjustment, including further information on the interactions between the annual EMR and the AMP.
45.a.vii	a continual feedback system to inform appropriate actions to be initiated when triggered and environmental objectives are always being met; 45.a.vii							1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. There is a stated intention that the AMP will be reviewed annually as part of the Operator's environmental performance reporting. The ongoing AMP review and revision process is illustrated in AMP-Revision E, Figure 19. A review of the AMP may be triggered by internal or external feedback, including recommendation from the EMR, TARP level 3, Independent Monitor, Independent Expert Panel review or learnings made through the iterative adaptive management process.	This condition is marked as completed in the Authorisation dated 17May2023.
45.a.viii	continual development of new management actions as required based on knowledge gained from experience at the site and elsewhere across industry. 45.a.viii							1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. There is a stated intention that the AMP will be subject to ongoing annual reviews as part of the Operator's environmental performance reporting (refer to Condition 45, vii).	This condition is marked as completed in the Authorisation dated 17May2023.

Authorisation Co	ompliance Workbook - Operator												
Authorisation	18 June 2021 Authorisation Condition/Requirement Condition No.	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine	sediments) Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
45.b	The AMP must be reviewed by the Independent Monitor or an appropriately qualified, independent third party, and updated with inputs from the CRG (once established under Condition 43); 45.b								1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. Review of the Adaptive Management Plan final dated July 2023 is the Independent Monitor's review of the AMP (Revision E) undertaken within the three year period since the Independent Monitor's review of the initial AMP (Revision 0), completed in June 2020. An independent review of AMP (Revision C) commissioned by MRM was conducted by the University of Queensland, Sustainable Minerals Institute (dated March 2021 and provided to DITT.	Note CRG not established in the audit period. OBS: The condition does not appear to require the AMP to be updated based on the Independent Monitor review.
45.c	all review findings and CRG input requirements are to be provided to the Department for approval. 45.c								1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. Review of the Adaptive Management Plan dated July 2023 was submitted by the Independent Monitor to DITT. The CRG is not yet established. It is anticipated that the CRG will be established in 2023, and that it will be available to review future AMP revisions.	Submitted to DEPWS as part of WDL requirement and was submitted to DITT. OBS: Refer to Condition 45.b.
46	Unless agreed otherwise in writing by the Department, the AMP must:										Refer to sub conditions		Submitted to DEPWS as part of WDL requirement and was submitted to DITT.
46.a	clearly set out the required management objectives and performance indicators; 46.a								1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Management objectives and performance indicators are clearly set out, refer to Condition 45.a above.	Submitted to DEPWS as part of WDL requirement and was submitted to DITT.
46.b	provide clarity on the triggers for changes to management actions, and responsibility and evidentiary basis for decision-making; 46.b								1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. The trigger levels for changes to management actions for monitoring of water, air quality and rehabilitation are listed in AMP-Revision E, Table 8: TARP process. The evidentiary basis and scope for a TARP level 3 investigation is provided in AMP Revision E, Section 5.2.1. Where contingency measures are to be implemented, the responsibility for decisio making is to be consultative between the Operator and relevant regulators as outlined in AMP-Revision E, Section 5.2.1.	
46.c	establish the timeframe for initiation of certain actions if triggers are exceeded, including decisions to discontinue an activity and clarify responsibility and evidentiary basis for decision-making; 46.c								1	3	Part Complianc (High)	Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021) - approval. DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. The TARP process identifies timeframes for some, but not all, actions if triggers are exceeded. The Contingency Plan, AMP-Revision E, Section 7, outlines some reporting timeframes in the event a key environmental objective is not being met.	

5 May 2022 Authorisation		Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
46.d	establish a process for adjusting triggers that includes the regulator; 46.d								1	4	Full Compliance	Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021) - approval. DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. The AMP states it will be subject to ongoing reviews and revisions, and would be updated in consultation with appropriate regulatory authority. The review and update process for revision of the AMP including consultation with regulatory authorities is illustrated in AMP-Revision E, Figure 19.	Submitted to DEPWS as part of WDL requirement and was submitted to DITT.
46.e	establish transparent monitoring, reporting and review requirements; 46.e								1	3	Part Compliance (High)	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. The AMP establishes monitoring, reporting and review requirements but does not specifically describe how these will be designed and presented to be transparent.	Submitted to DEPWS as part of WDL requirement and was submitted to DITT. OFI: Incorporate more information to outline how transparency in monitoring, reporting and review is provided to show openness and accountability.
46.f	establish processes to achieve transparency and stakeholder engagement in AMP design and implementation that includes NT EPA, DAWE and CRG; 46.f								1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Section 8.1 of the Adaptive Management Plan, states that following the Independent Monitor's review, where the outcome of the review results in a material change of the plan, the AMP will be made available to DITT, NT EPA, DAWE and CRG.	
46.g	set out the mechanism for periodic review by Independent Monitor, which must not exceed a frequency of every three years; 46.g								1	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. The AMP states the Independent Monitor is required to review the AMP every three years. Refer to AMP-Revision E, Section 8.1, Independent Monitor Review.	
46.h	be provided to the Department for re-approval in the event that any material changes are made to the AMP. 46.h								1	4	Full Compliance	AMP Version D dated 1Dec2021. AMP Version E dated 5May2022. Correspondence between Operator and DITT relating to Updated AMP & AQMP (November 2021). Correspondence between DITT and Operator relating to Updated AMP & AQMP (November 2021) (approval of amended AMP (version D)). Correspondence between Operator and DITT relating to Water Management Plan Update. The Operator outlines that no material changes to the AMP have occurred and beer submitted to DITT for re-approval after 13 May 2022.	The Operator submitted AMP version E to DEPWS, not DITT. DITT advised that t difference between version D and version E is in relation to the Water Managen Plan (to address requirements of the WDL) and one minor change to the AMP. To Operator did not submit a singular document entitled "AMP_version E" to DITT, rather they advised DITT of the changes. Similarly the Water Management Plan changes were not material to DITT. Version AMP-E (May 2022) of the Mine's Adaptive Management Plan is the late version.
47	The Operator must provide written notice to the Minister and to the NT EPA (under clause 14A of the Environmental Assessment Administrative Procedures 1984) where trends indicate performance indicators and environmental objectives will not, or are unlikely to be, met by implementing the AMP.								1	N/A	Not Applicable	EMR 2022-2023 dated 31Aug2023. The AMP states the Operator will provide written notice to DITT where trends indicate performance indicators and environmental objectives will not, or are unlikely to, be met by implementing the AMP, refer to AMP-Revision E, Section 5.2.1, Level 3 Investigation Report and Assessment Against Environmental Objective. Each section of the EMR 2022-2023 has a section titled 'Monitoring Results and Trends'.	The Operator has not identified any trends where indicators or objectives would be met and they would be identified through the AMP TARP process.

Appointment of ICE

5 May 2022 Authorisation	18 June 2021	Condition/Requirement	Air Quality (dust & sulphur dioxide, fransport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine	Groundwater Aquatic fauna (fish	river) Vegetation & Rehabilitation (terrestrial, diversion &	Waste (general, mine rock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
48	48	The Operator must appoint an Independent Certifying Engineer (ICE) to:									Refer to sub conditions		The Operator advised "GHD remain the nominated ICE for the current reporting period." Understanding is that this applies to TSF, NOEF and water storages.
48.a	48.a	warrant and accept both the design and construction works, without limitation on responsibility;					1		1	3	Part Compliance (High)	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. No evidence was provided to demonstrate that the ICE warrants and accepts both the design and construction works specifically without limitation on responsibility for the NOEF or TSF in the audit period.	The requirement of "without limitation on responsibility" has been removed from this condition in the Authorisation dated 17May2023. No OFI has been prepared given the requirement of "without limitation on responsibility" has been removed from this condition in the Authorisation dated 17May2023.
48.b	48.b	be present during all phases of construction where required in the approved MMP (including at hold points) and oversee and certify the works that they meet design specifications;					1		1	3	Part Compliance (High)	Correspondence between ICE and Operator relating to TSF Construction Works, Ma 2022 - April 2023, Engineer of Record Oversight. NOEF ITPS. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. Correspondence between ICE and Operator relating to WMD Upgrade Works, May 2022 - April 2023, Engineer of Record Oversight. Correspondence between ICE and Operator relating to Northern Overburden Emplacement Facility (NOEF) Operations, May 2022 - April 2023, Independent Certifying Engineer Oversight. Correspondence between ICE and Operator confirms the audit period and in accordance with "Clause 48" of the Authorisation "Works undertaken during this period included the continued buttress expansion along the TSF Cell 2 southern embankment in accordance with the GHD design and the technical specification (refer GHD report McArthur River Mining Pty Ltd, TSF Cell 2 Intermediate Buttress Design Report, Revision 0). No TSF construction raise works were completed during this period." Correspondence between ICE and Operator indicates that the ICE maintained a site Prescence for the NOEF and states that they cannot currently certify the works mee design specifications for 2022 or 2023 as ITPs are outstanding. ICE certification for 2022 and 2023 NOEF works remains outstanding. Spot checks were done on the NOEF ITPs and it was found that 5 out of the 6 documents inspected contained gaps where for hold points, the Inspection Signatures and Dates were signed by the MRN representative but not by the ICE. The Operator has provided evidence dated 19Sep2023 relating to ICE oversight for the dam safety upgrade works being undertaken on the WMD during the period 1 May 2022 to 30 April 2023.	period. Buttressing works are being undertaken with oversight of the ICE. QA/QC documents will be collated with the construction report once construction is completed at the end of the year. The Operator advised "Minimal works occurred on the CE Bravo Sump during the audit period, although Extraction Tower construction did occur in the sump durin the audit period. The ICE oversaw the construction of the CE Bravo Sump and Extraction Tower works. The ITP for the CE Bravo Extraction Tower works has bee provided, noting that it has not yet been finalised as the construction works are sunderway." Related to the WMD the Quarterly Report July to September 2022 states "Construction activities began on 25 June 2022 and are expected to continue throughout 2022". OFI: Ensure the ICE progressively prepares monthly construction reports for the NOEF.
48. c	48.c	approve re-commencement of construction at defined hold points;					1		1	3	Part Compliance (High)	Correspondence between ICE and Operator relating to TSF Construction Works, Ma 2022 - April 2023, Engineer of Record Oversight. NOEF ITPs. Correspondence between ICE and Operator relating to WMD Upgrade Works, May 2022 - April 2023, Engineer of Record Oversight. Spot checks were done on the NOEF ITPs and it was found that 5 out of the 6 documents inspected contained gaps where for hold points, the Inspection Signatures and Dates were signed by the MRM representative but not by the ICE. Limited evidence was provided for the NOEF. Correspondence between ICE and Operator related to TSF states "A GHD EoR Delegate (in consultation with the EoR) has been on-site throughout construction to complete hold point releases and witness the works, including: - Material borrow pit inspections; - Buttress foundation inspections and approvals; - Material placement and compaction; - Material testing (as required); and - Survey conformance to design." The Operator has provided evidence dated 19Sep2023 relating to ICE oversight for the dam safety upgrade works being undertaken on the WMD during the period 1 May 2022 to 30 April 2023.	NOEF are provided. No TSF lifts/raises were completed during the audit period. N TSF lifts/raises were completed during the audit period. Buttressing work ITPs will be collated with the construction report when construction is due to be complete at the end of the year. The Operator advised "Minimal works occurred on the CE Bravo Sump during the audit period, although Extraction Tower construction did occur in the sump durin the audit period. The ICE oversaw the construction of the CE Bravo Sump and Extraction Tower works. The ITP for the CE Bravo Extraction Tower works has bee provided, noting that it has not yet been finalised as the construction works are sunderway."

Authorisation Co	mpliance Work	book - Operator											
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	Air Quality (dust & sulphur dioxide, gransport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing 30ng, marine	Groundwater Aquatic fauna (fish	ver) 'egetation & Rehabilitation terrestrial, diversion & VOEF)	Naste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
48.d	48.d	approve any material changes to the design during construction;	4 65 4				1	3 :=	1	4	Full Compliance	NOEF Technical Query - Temporary Rock Lining of Eastern Perimeter Drain dated 26Sep2022 approved by ICE 12Oct2022. NOEF Technical Query - Clay Lining of NW Levee Tie In dated 27Sep2022 approved by ICE 12Oct2022.Letter ICE to Operator subject: Northern Overburden Emplacement Facility (NOEF), Independent Design Review of North-West Stage Wedge Zone Construction dated 22Jul2022. NW Stage Wedge Construction Memo dated 28Jun2022. The two technical queries and a memo provided include material changes that are signed off by the ICE.	The Operator advised that no TSF design changes were proposed during the audit period. In relation to NOEF, material design changes are generally completed between Stages, and are therefore approved in the Stage Design Report. While mostly minor, design changes during construction are handled via the Technical Query system, with some examples provided.
48.e	48.e	verify any monitoring equipment/structure installed or to be installed as part of the construction as specified in the relevant detailed designs remains functional at the conclusion of the construction works;					1		1	4	Full Compliance	ITP - North West Cell 3C, 2022_ITP_Basal CCL - Excavate to top of Subgrade, Basal CCL and Benign Rock Fill dated May2022 included VWP installation on 16Jul2022. An ITP was provided as evidence that the ICE verified monitoring equipment installed as part of construction.	
48.e.i	48.e.i	in the event such equipment becomes non-functional, then replacement or an ICE approved alternative must be implemented by the Operator;					1		1	N/A	Not Applicable		No equipment became non-functional.
48.f	48.f	agree in writing, if the Operator wish to appoint an Operator's project manager/resident engineer as an onsite representative, and agree in writing that this does not diminish the ICE's responsibility or liability for the project;					1		1	3	Part Compliance (High)	Site Instructions and Notes Construction On-site witnessing for NOEF Projects work dated 23Dec2022. Site Instructions and Notes Construction On-site witnessing for NW Stage Works dated 14Jun2022. Site Instructions and Notes Construction On-site witnessing for NW Stage Works dated 27May2022. The Operator advised that relevant works relating to the TSF were overseen by the ICE; no delegation of authority took place during the reporting period. The Operator advised related to the NOEF "There were a few instances where the ICE appointed Construction Sciences as an onsite representative. Evidence has bee provided for these cases in the form of NOEF Project Construction Site Witness Form signed by the ICE." The Site evidence provided demonstrated that the ICE has agreed to the appointment of Construction Sciences as a "site-based resource to witness all visual aspects of the construction" and while evidence also stated what GHD would continue to perform various activities, there is no evidence that the ICE agreed in writing that " this does not diminish the ICE's responsibility or liability for the project" and therefore this is a part-compliance high.	Operator's project manager/resident engineer as an onsite representative does not diminish the ICE's responsibility or liability for the project.

Authorisation Co	mpliance Workbook - Operator											F 11 2000	0 1 2022
	18 June 2021 Authorisation Condition/Requirement Condition No.	Air Quality (dust & sulphur dioxide, rransport)	surface Water (River, Creek, Artificial dams) Marine Waters (Bing 3ong, marine	sediments) Groundwater	Aquatic fauna (fish iver)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
48.g	on completion of construction, provide a certified "as-constructed" construction report detailing: 48.g	, , , , , , , , , , , , , , , , , , ,		5			1		1	4	Full Compliance	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Correspondence between DITT and Operator relating to Condition 48.g - SPROD & SEPROD Construction Report. Correspondence between DITT and Operator relating to Clarifying compliance requirements for perimeter runoff dams. The Operator outlines that the EPROD construction was completed in 2022. An ICE certified 'as-constructed' construction report was submitted to DITT via email/Sharefile in Dec2022. The Operator advised that there was no other construction completed during the audit period. No TSF lifts/raises were completed during the audit period. Buttressing work ITPs will be collated with the construction report when construction is due to be completed at the end of the year. Construction of the WMD spillway was ongoing in the audit period so no construction report was required in the audit period. No evidence was provided for a construction report for any new sumps. however CB Bravo will be included in the NOEF annual construction report.	Department on 5 December 2022, per the documents provided with this submission." The works on SPROD (lining and spillway) appear to have been undertaken in 2019 and 2020 with the construction report only prepared in 2022. However, a construction report does not appear to be a requirement for SPROD based on the Authorisation at the time of the construction.
48.g.i	all the works undertaken; 48.g.i						1		1	4	Full Compliance	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022.	
48.g.ii	evidence of: 48.g.ii										Refer to sub conditions		
48.g.ii.a	hold-point sign-offs; 48.g.ii.a						1		1	4	Full Compliance	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Hold point sign offs are listed in Appendix E of the SPROD Construction & Commissioning Report. There was no evidence of hold point sign-offs included in the EPROD Construction Report dated Nov2022. Conversely there was evidence to suggest that some hold points may not have been adequately signed-off. EPROD Construction Report Appendix D – GHD Construction Correspondence included various SITE INSTRUCTIONS & NOTES – EPROD. Specifically one dated 8Sep2018 stated "Quality documentation, including ITPs, hold points and construction methodologies, have not been provided." and "Drainage works have commenced in the northern section of the dam. It was observed that an area has been excavated, geofabric and Megaflo laid, and backfilled with aggregate. As per the hold point schedule in the specification: "Installation of under drainage pipework prior to backfilling". This hold point has been missed, and is required to ensure proper cleanout of the trench (that may settle), no issues with the trench walls, and that the pipe has been placed appropriately."	
48.g.ii.b	testing carried out (including but not limited to field tests, laboratory tests and statistical tests); 48.g.ii.b						1		1	4	Full Compliance	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Testing (including certification of testing) is listed throughout both reports.	
48.g.ii.c	acceptance criteria applied and compliance of the test results with the acceptance criteria; 48.g.ii.c						1		1	4	Full Compliance	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Section 5 of the SPROD Construction & Commissioning Report details acceptance criteria and Appendix D discusses the results of testing. Sections 2, 4 and 5 of the EPROD details acceptance criteria and Appendix D discusses the results of testing.	

Authorisation Co	mpliance Work	book - Operator												
5 May 2022	18 June 2021 Authorisation	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Creek, Artificial dams) Marine Waters (Bing Bong, marine	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
48.g.ii.d	48.g.ii.d	where deviations to the plan have occurred, justification that demonstrates the design intent and performance of the structure has not been compromised.						1		1	4	Full Compliance	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Section 2.6 of the SPROD Construction & Commissioning Report lists changes to design and the summary of those changes. Section 2.6 of the EPROD Construction Report lists changes to design and the summary of those changes.	
49		The Operator must ensure that the ICE holds appropriate public and professional indemnity insurance to cover the scope of works associated with the scope of work certified.									4	Full Compliance	NOEF Independent Certifying Engineer Role Proposal for Services McArthur River Mining Pty Ltd 18 June 2021 (3219254-PRO-0_NOEF ICE Proposal). Certificate of Placement – Public and Products Liability Policy provided is for 31May2023 to 31May2024. (Relevant after the audit period). Certificate of Placement – Professional Indemnity 1 December 2022 at 4.00pm to 1 December 2023 at 4.00pm (Relevant for the end of the audit period). The Operator advised "GHD maintains Public and Professional Indemnity insurance that are consistent with the levels stipulated in the MRM-GHD Umbrella Agreemen UMB010– Consultancy Services. The Umbrella Agreement is included at the end of the NOEF ICE Proposal provided for Condition 48." This contract is dated 18Jun21 and therefore is relevant to the audit period. NOEF ICE Role Proposal for Services 18Jun2021 that appropriate public and professional indemnity insurance is required under the contract clause 12.1 (b). Public and Professional Indemnity insurances provided were evidence of insurance generally being held, although the evidence provided was not for the entire audit period.	professional indemnity insurance to cover the scope of works that covers the audi period. s t
ndependent Tailings		gs Review Board The Operator must:												
50	50											Refer to sub conditions		
50.a	50.a	convene an advisory board (Independent Tailings Review Board or ITRB);						1			4	Full Compliance	ITRB On-Site Meeting and Site Inspection Meeting Minutes dated 19Jan2023. Bruce Brown, David Williams, Tamie Weaver continue to be the ITRB members and were in attendance based on the meeting minutes dated 19Jan2023.	The ITRB attended site in January 2023.
50.b	50.b	ensure the ITRB:										Refer to sub conditions		
50.b.i	50.b.i	membership includes independent geotechnical, tailings, and groundwater specialists;						1			4	Full Compliance	ITRB On-Site Meeting and Site Inspection Meeting Minutes dated 19Jan2023. Bruce Brown, David Williams, Tamie Weaver continue to be the ITRB members and were in attendance based on the meeting minutes dated 19Jan2023.	The Operator advised that there had been no change to the ITRB in the audit period

Authorisation Co	mpliance Workb	oook - Operator											
5 May 2022 Authorisation	18 June 2021	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine sediments)	Groundwater Aquatic fauna (fish	river) Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
50.b.ii	50.b.ii	meets regularly to advise on operation of the TSF and any future modifications to its design;					1			3	Part Compliance (High)	ITRB On-Site Meeting and Site Inspection Meeting Minutes dated 19Jan2023. TSF ITRB Site Visit Notes dated Jan2023. ITRB Meeting Presentation - dated Jan2023. Correspondence between Operator and ITRB relating to ITRB Document Review.Correspondence between ITRB internally cced and Operator relating to ITRI Review Requirements. The ITRB did not meet between April 2021 and January 2023. While the condition doesn't state a timeframe for meeting other than "regularly", it is reasonable to assume that the ITRB would review modifications to the design. Design changes related to buttresses were approved by the ICE based on the TSF Cell 2 Stage 7 Rais to RL 10063 m Construction Report and there is no mention of this construction report in the minutes of the ITRB meeting in Jan2023. Lack of evidence of ITRB review of the TSF Cell 2 Stage 7 Raise to RL 10063 m Construction Report is considered a part compliance. Construction was complete on the TSF Cell 2 Stage 7 Raise to RL 10063 m in Nov2021. This is a requirement of the Project Quality Plan Jul2021 and related to operation of the TSF which is part of this condition. The Operator advised that the Cell 2 Stage 7 Raise Construction Report will be part of a package provided to the ITRB, however, the Cell 2 Stage 7 Raise Construction Report is dated 2May2022 so given the time lapsed since then this is considered a part compliance. There is evidence that the Operator provided the TSF OMS Manual, Buttress expansion letter and intermediate buttress design report to the ITRB in Jan2023 and followed up with the ITRB to ensure they had them in Apr2023. With further correspondence from the ITRB in Sep2023 with a response that one member had reviewed the OMS Manual.	OFI: Ensure that the ITRB meets annually.
50.b.iii	50.b.iii	is required to meet within 90 days from commencement of construction to allow sufficient time for review of subsequent modification to the TSF;					1			N/A	Not Applicable		There were no new TSF raises in the construction period. Next raise (Cell 2 Raise to RL10,064m and Cell 1 Raise to RL10,061m) is anticipated late 2023 and the 90 days will be relevant to the next audit period.
50.c	50.c	provide details of the members of the ITRB panel and meeting frequency to the Department for endorsement by the Department;					1		1	4	Full Compliance	ITRB On-Site Meeting and Site Inspection Meeting Minutes dated 19Jan2023. Correspondence between Operator and Department 30Oct2017 MRM DPIR Meeting with ITRB (before audit period). The ITRB members are Dr. Tamie Weaver, Prof. David Williams and Dr. Bruce Brown, which is consistent with the individuals listed in the Email Operator to Department 30Oct2017 MRM DPIR Meeting with ITRB. The Department advised the Independent Monitor in the 2020 audit that they had endorsed the members of the ITRB. There have been no changes in the audit period.	
50.d	50.d	together with the ICE, provide a written response to the satisfaction of the Department, in the event that future review of the designs by independent experts require additional matters to be addressed;					1		1	N/A	Not Applicable	The Operator outlines that no expert reviews of the TSF occurred within the audit period, nor were any design changes proposed.	Not applicable as review of the designs by independent experts has not occurred and the independent panels are not yet established.

Authorisation Co	npliance Workb	ook - Operator												
5 May 2022 Authorisation Condition No.		Condition/Requirement	Air Quality (dust & culphur dioxide, ransport)	surface Water (River, Creek, Artificial dams) Marine Waters (Bing Song, marine	ediments) Groundwater	Aquatic fauna (fish iver)	regetation & Rehabilitation terrestrial, diversion & NOEF)	Naste (general, mine ock, tailings)	Sommunity (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
50.e	50.e	ensure ITRB endorses any future modifications to the TSF in writing, with all ITRB review comments appropriately addressed for both construction and future use of the structure. This includes, but is not limited to:	, t					1		1	3	Part Compliance (High)	ITRB On-Site Meeting and Site Inspection Meeting Minutes dated 19Jan2023. TSF ITRB Site Visit Notes dated 19Jan2023. ITRB Meeting Presentation - dated 18Jan2023. TSF - Operations, Maintenance and Surveillance Manual dated 08Sep2021 Correspondence between Operator and ITRB relating to ITRB Document Review. Correspondence between ITRB internally cced and Operator subject: Re: ITRB Review Requirements. TSF Operations and Maintenance Manual in section 4.4.1 "The ITRB shall meet and review annually as a minimum, and must consider when there is a change to the Consequence Category assessment, modifications to the design or operations of the structure or issues of concern noted in the annual dam safety inspections." The ITR did not meet between April 2021 and January 2023. There is evidence that the Operator provided the TSF OMS Manual, Buttress expansion letter and intermediate buttress design report to the ITRB in January 2023 and followed up with the ITRB to ensure they had them in April 2023. With further correspondence to the ITRB also dated 28Aug23 with a response that one member had reviewed the OMS Manual.	
50.e.i	50.e.i	Studies and/or trials to inform future construction and/or operation of the structure;						1		1	N/A	Not Applicable		The Operator outlines that a tailings beach improvement trial (using amphibious screw-propelled vehicle and dozer) is underway. This trial has been discussed with the ITRB during the January 2023 meeting. A performance summary will be provided to the ITRB on completion of the trial for endorsement if a change to the existing beach methodology is proposed. The trial will conclude in the next audit period.
50.e.ii	50.e.ii	The TSF Operations, Maintenance and Surveillance (OMS) manual, including the Trigger, Action and Response Plan (TARP) is updated regularly to accommodate any relevant changes to the structure that may impact on its stability and performance.						1		1	2	Part Compliance (moderate)	TSF - Operations, Maintenance and Surveillance Manual dated 08Sep2021 Correspondence between Operator and ITRB relating to ITRB Document Review. Correspondence between ITRB internally cced and Operator relating to ITRB Review Requirements. TSF Operations and Maintenance Manual in section 4.4.1 "The ITRB shall meet and review annually as a minimum, and must consider when there is a change to the Consequence Category assessment, modifications to the design or operations of the structure or issues of concern noted in the annual dam safety inspections." The ITR did not meet between April 2021 and January 2023 and did not review the OMS Manual in that time. The Operator outlines that Version 7 of the OMS Manual was implemented during the audit period. The Operator advised that the OMS Manual has been provided to the ITRB for review and endorsement prior to finalising. There is evidence that the Operator provided the TSF OMS Manual, Buttress expansion letter and intermediate buttress design report to the ITRB in January 2023 and followed up with the ITRB to ensure they had them in April 2023. With further correspondence to the ITRB also dated 28Aug23 with a response that one member had reviewed the OMS Manual.	
Waste Rock Managem														
51		From the date of authorisation Non-benign Waste is to be permanently placed consistent with the approved MMP:										Refer to sub conditions		

uthorisation Co	ompliance Workbook - Operator												F.:d., 2022	C
5 May 2022 Authorisation Condition No.		Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
51.a	above the 100 year ARI flood level, unless flood mitigation measures are provided consistent with the approved MMP and relevant Detailed Designs submitted to the Department in accordance with the conditions of this variation of Authorisation, with the exception of PAF(RE); 51.a		1		1			1			4	Full Compliance	NOEF North East Alpha Stage Complete Design Report version 3 dated 23Feb2022 (before audit period). NOEF North West Stage Foundation and Base Design Report version 4 dated 20Jul2022. January 2020 MMP EMR 2021-2022 dated 31Aug2021. Correspondence between ICE and Operator relating to Northern Overburden Emplacement Facility (NOEF), Independent Design Review of North-West Stage Wedge Zone Construction dated 22Jul2022. NW Stage Wedge Construction Memo dated 28Jun2022. NOEF North East Alpha Stage Complete Design Report states: "As shown in Figure 5 the vertical location is above the 100 year flood level, as the cells are located above the Wedge. It is also below the current 80m height limit." It also includes a design criteria of above Q100 flood level in Table 2. Correspondence between ICE and Operator states "Calculations confirmed adequate storage volume was achieved without overtopping the temporary Q20 flood levee at the eastern extent of the stage." and "Permanent flood protection for the NW stage is in the form of the final cover system which features a Bituminous Geomembrane (BGM) liner. For up to 2 wet seasons, temporary flood protection featuring a 250 mm thick CCL as an outside barrier layer is proposed, which is reflective of its short-term use prior to final cover installation. A temporary homogenous earthfill levee with flat slopes is proposed for the eastern limit of the NW stage which is also considered a suitable alternative for temporary flood protection."	from EPROD to SEPROD in the south (Figure 16). Construction will be in accordance with the NOEF Construction and Design guidelines. The temporary 20 year ARI floor protection levee will be in place for a maximum of two wet seasons."
51.b	on a compacted clay liner (CCL) or low permeability material that satisfies the design objective in Condition 19 that slopes towards a Perimeter Runoff Dam (PROD) or an appropriately lined storage structure, as defined in Condition 58(a); 51.b		1		1			1			4	Full Compliance	NOEF North West Stage Foundation and Base Design Report version 4 dated 20Jul2022. ITPs Correspondence between ICE and Operator relating to Northern Overburden Emplacement Facility (NOEF), Independent Design Review of North-West Stage Wedge Zone Construction dated 22Jul2022. NW Stage Wedge Construction Memo dated 28Jun2022. Table 2 of the NOEF North West Stage Foundation and Base Design Report outlines parameter checks for foundation and CCL, which includes minimum slopes. Spot checks of the ITPs provided show that the ICE had signed off on CCL Placemen or In-situ CCL Compaction as relevant, including permeability testing requirements	t
51.c	PAF is emplaced in lift heights that minimises particle size segregation and creation of chimney structures, and must not exceed 7.5m taking into construction tolerances; 51.c		1		1			1			4	Full Compliance	ITPs ITPs describe Hauling and Dumping of a 7.5m thick PAF(HC)/MS-NAF layer and particle size of 0.2m under Acceptance Checklists and Criteria.	
51.d	PAF(RE) is emplaced in dedicated cells in lift heights that minimises particle size segregation and creation of chimney structures, but must not exceed 2m taking into construction tolerances; 51.d		1		1			1			4	Full Compliance	NOEF North West Stage Foundation and Base Design Report version 4 dated 20Jul2022. ITPs ITPs describe Hauling and Dumping of a maximum 2m thick PAF(RE) layer and particle size of 0.2m under Acceptance Checklists and Criteria.	

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Authorisation Co	mpliance Worki	ODOK - Operator					- ×						Evidence 2023	Comments 2023
	18 June 2021 Authorisation Condition No.	Condition/Requirement	Air Quality (dust & ulphur dioxide, ransport)	urface Water (River, Creek, Artificial dams) Marine Waters (Bing	ediments)	\quatic fauna (fish i∨er)	egetation & Rehabilitation & terrestrial, diversion (VOEF)	Naste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level		
51.e	51.e	advection barriers of appropriate thickness and moisture condition are emplaced at suitable intervals that disrupt the formation of oxygen convection cycles;	V is 1	S O 2 6		A in	> & E 2	1	O .i.		4	Full Compliance	NOEF North West Stage Foundation and Base Design Report version 4 dated 20Jul2022. NW Stage Wedge Construction Memo dated 28Jun2022. ITPs ID#9 of the NW Stage Risk Assessment Table of the NW Stage Wedge Construction Memo outlines that: "Advection barriers around all nonbenign material limit furth oxygen ingress." ITPs describes the placement of and thickness of the advection barriers, and also describes moisture condition by stating: "No moisture conditioning required".	
51.f	51.f	the ICE verifies the suitability of the PAF placement methodology with respect to particle size segregation and advection barriers;			1			1			4	Full Compliance	NOEF North East Alpha Stage Complete Design Report version 3 dated 23Feb2022. NOEF North West Stage Foundation and Base Design Report version 4 dated 20Jul2022. ITPs All ITPs are signed by the ICE (J. Castle).	
51.g	51.g	construction of the NOEF stages, as defined in Conditions 53 and 54 is undertaken in accordance with a valid AAPA certificate;							1		4	Full Compliance	AAPA Authority Certificate C2004/014 dated 30Jan2004. AAPA Authority Certificate C2004/084 dated 16Jun2004. Internal document 2023 McArthur River Mine NOEF Height Compliance. Internal document McArthur River Mine NOEF Height Compliance states: "The maximum height of the NOEF measured on the 12/04/2023 was RL: 10115.862m MRM Local Grid and 115.898m MGA. The nominal accuracy is expected to be +/-30mm. The NOEF surface was compared to the 2006 ALS LIDAR surface before rock was placed. The NOEF surface was found to be less than 80 metres above and complian with AAPA conditions for proposed work or use. Note for reference that the Barramundi Dreaming maximum height is 10116.034 MRM local grid and 116.055 MGA."	nt
51.h	51.h	design of the NOEF is flexible to accommodate changes, if required, to comply with archaeological site MRM4 matters under Condition 31;							1		4	Full Compliance	January 2020 MMP The NOEF is already designed to leave the MRM4 area undisturbed, if approval is not granted. An example of the design accommodating MRM4 is that there is a temporary levee in between the NOEF and MRM4 in plans in case approval is not obtained to expand into the MRM4 area. Figure 14 of the January 2020 MMP show the potential location of this optional levy.	The Operator advised that no approval has been received to construct on MRM4 in the audit period and they continue to stay out of that area.
51.i	51.i	in the event that future review of the designs or as-built structure by independent experts require additional matters to be addressed, the Operator together with the ICE must provide a written response to the satisfaction of the Department;								1	N/A	Not Applicable		The Operator advised that there has been no independent expert review of the NOEF designs or as-built structure during the audit period.
51 .j	51.j	at mine closure, non-benign waste rock is encapsulated and fully contained within an engineered cover system consistent with the Overburden Management Project, or an alternative cover system endorsed by the relevant independent technical panels to the satisfaction of the Department.					1	1			N/A	Not Applicable		Future item. Mine closure is not relevant to the audit period.
Construction of CWN		From the date of authorisation of the Overburden Management Project, the Operator is approved to construct, operate and maintain the following stages for permanent placement of Waste Rock in the NOEF:						1			4	Full Compliance	EMR 2022-2023 dated 31Aug2023. EMR 2022-2023 TABLE 6: WASTE DUMPING DURING THE REPORTING PERIOD shows waste dumping only at the approved locations, which was the NOEF. This included 4.45 Mt of alluvium on the NOEF stockpiles (which is temporary and therefore not relevant to this condition). EMR 2021-2022 Section 2.4.2 also only included approved locations.	Operator advised that waste rock dumping is controlled via GPS in trucks so that it i placed in the listed stages.
52.a	52.a	West A, B, C and D;						1				-		Compliance scored under condition 52.
52.b	52.b	CW (alpha, bravo and charlie);						1				-		Compliance scored under condition 52.
52.c	52.c	CE (alpha and bravo);						1				-		Compliance scored under condition 52.

Authorisation Co	mpliance Wo <u>rk</u> l	pook - Operator											
Condition No.	Condition No.	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport) Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater Annatir fanna (fish	river) Vegetation & Rehabilitation (terrestrial, diversion & MOEE)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
52.d	52.d	SE;					1	-			-		Compliance scored under condition 52.
52.e	52.e	NW;					1				-		Compliance scored under condition 52.
52.f 53	52.f 53	NE. The Operator must develop the NOEF Stages defined in Condition 52 in accordance with Concept designs presented in the approved MMP.					1			4	Full Compliance	ITPs ITPs include PAF and PAF (RE) under Main activity.	Compliance scored under condition 52. The Operator stated "The ICE considers that the designs presented are acceptable and the construction specifications are appropriate and consistent with methods that have matured, following the construction of previous stages."
54	54	During construction of the NOEF, the Operator must ensure:									Refer to sub conditions		
54.a	54.a	engagement of the ICE consistent with Condition 48;					1		1	4	Full Compliance		Refer to condition 48 for further detail of compliance.
54.b	54.b	waste rock management requirements comply with Condition 51.					1			4	Full Compliance		Refer to condition 51 for further details of compliance.
Remaining Waste Roo	Remaining Waste R	ock Management Facilities											
55		From the date of authorisation of the Overburden Management Project, temporary placement of non-benign waste is authorised for the following:									Refer to sub conditions	Correspondence between Operator and DITT relating to Temporary Concentrate Storage. Correspondence between Operator and DITT relating to RE: MRM Temporary Concentrate Storage - APPROVED.	
55.a	55.a	EOEF (except for PAF(RE));					1			N/A	Not Applicable		Operator advised that the EOEF has not had any placement of non-benign waste.
55.b	55.b	stockpiles on NOEF, SOEF and WOEF;					1			4	Full Compliance	EMR 2022-2023 dated 31Aug2023. EMR 2022-2023 states "Topsoil, clay, alluvial and LS-NAF (HC) materials were stockpiled in existing stockpile areas surrounding and within the NOFF footprint during the reporting period. These materials will be utilised later for various future foundation, NOFF and cover system construction activities."	Operator advised that the SOEF and WOEF are no longer being used for placement and stockpiles were on the NOEF in the audit period.
55.c	55.c	ROM Pad;					1			N/A	Not Applicable		Operator advised that the ROM Pad is only used for ore.
55.d	55.d	any other location approved by Department in writing.					1			N/A		EMR 2022-2023 dated 31Aug2023. EMR 2022-2023 states "Topsoil, clay, alluvial and LS-NAF (HC) materials were stockpiled in existing stockpile areas surrounding and within the NOEF footprint during the reporting period. These materials will be utilised later for various future foundation, NOEF and cover system construction activities."	Operator advised the Independent Monitor that there are no other areas approved by the Department in writing. The Independent Monitor did not find any other areas of waste placement in the EMR.
56		The Operator must ensure that non-benign wastes temporarily placed outside of NOEF have:									Refer to sub conditions		
56.a	56.a	suitable water management structure (e.g. drains and sumps) are in place to contain and manage poor quality drainage in accordance with the approved MMP;	1				1			N/A	Not Applicable	Correspondence between Operator and DITT relating to Temporary Concentrate Storage. Temporary Concentrate Storage Options dated 17Jan2023. Temporary Concentrate Stockpile option 1 - South Levee undated. Correspondence between Operator and DITT relating to Temporary Concentrate Storage. Correspondence between Operator and DITT relating to Temporary Concentrate Storage - APPROVED.	Operator advised that no non-benign wastes were temporarily placed outside of the NOEF. Ore concentrate remains on the ROM Pad but is not waste. The storage of bulk lead and zinc concentrate at the new temporary storage location on McArthur River Road commenced on 11Mar2023.
56.b	56.b	installed water diversion structures that allows segregation of mine-affected drainage from non-mine affected drainage;	1				1			N/A	Not Applicable		Operator advised that no non-benign wastes were temporarily placed outside of the NOEF. Ore concentrate remains on the ROM Pad but is not waste. The storage of bulk lead and zinc concentrate at the new temporary storage location on McArthur River Road commenced on 11Mar2023.
56.c	56.c	monitoring and management measures, in accordance with the AMP, are implemented to ensure environmental objectives defined in the approved MMP are satisfied;	1				1		1	N/A	Not Applicable		Operator advised that no non-benign wastes were temporarily placed outside of the NOEF. Ore concentrate remains on the ROM Pad but is not waste. The storage of bulk lead and zinc concentrate at the new temporary storage location on McArthur River Road commenced on 11Mar2023.
56.d	56.d	non-benign wastes are removed and managed at cessation of mining in accordance with the approved MMP;					1			N/A	Not Applicable		Future item as cessation of mining has not occurred.
56.e	56.e	in the event of unplanned closure, non-benign wastes are removed and managed in accordance with the approved MMP;				1	1			N/A	Not Applicable		Future item as there have been no unplanned closures.

Authorisation Co	ompliance Workbook - Operator		· ` 🌣 _			≪	O)					Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Air Quality (dust & sulphur dioxide, transport)	Surface Water (River Creek, Artificial dams Marina Waters (Ring	Bong, marine sediments) Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level		
56.f	oversight provided by ICE as per Condition 48.						1			N/A	Not Applicable		Operator advised that no non-benign wastes were temporarily placed outside of the NOEF. Ore concentrate remains on the ROM Pad but is not waste. The storage of bulk lead and zinc concentrate at the new temporary storage location on McArthur River Road commenced on 11Mar2023.
re Processing and M 57	M Ore Processing and Milling Surface water management infrastructure associated with the lead filtration facility at the Mine must be suitably designed and		1							N/A	Not Applicable		Future item. January 2020 MMP mentioned as future work. The Operator advised "Lead Filtration Facility is currently moving through the design process, construction."
58	constructed to contain a 100 year ARI rainfall event. From the date of authorisation of the Overburden Management Project, the Operator is authorised to expand the ore processing and associated milling and storage facilities in accordance with concepts and management systems detailed in the approved MMP including:										Refer to sub conditions		is expected in Q2 2024." Gypsum Plant, Caustic Facility, Reagent Mixing Facility and Copper Mud Facility hav proceeded and others have not.
58.a	ensuring the structures to be developed are suitably designed and constructed to allow management of poor quality drainage in accordance with the Water Management Plan that is generated from the construction and future operation of the structures; 58.a		1							4	Full Compliance	Extract from the WMP: McArthur River Mine 2021-22 Site Configuration and Water Management Infrastructure dated May2022. Extract from the WMP: Schematic of the 2021_22 - 2024_25 McArthur River Mine Water Management System dated May2022. The Operator has provided evidence of the location of the Reagent Mining Facility, Copper Mud Facility, Gypsum Plant, Lead Storage Facility and the expansion of the concentrate storage shed, which is within the defined catchment suitable to manage poor quality water in accordance with the Water Management Plan.	
58.a.i	construction and development of Gypsum Plant; 58.a.i		1							4	Full Compliance	2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023. Independent Monitor sighted the foundations installed June 2023 in a bunded area near the reverse osmosis plant. There is no reference to the Gypsum Plant in the EMR 2022-2023. No evidence has been provided relating to the design and construction in accordance with the WMP	treat PbOx excess water to a suitable water quality before it re-enters the Mine water management system; and provide opportunities for potential end uses after treatment"
58.a.ii	construction and development of Caustic Facility; 58.a.ii		1							4	Full Compliance	EMR 2022-2023 dated 31Aug2023. January 2020 MMP No reference to a Caustic Facility specifically was found in the January 2020 MMP, however it states "MRM plan to introduce NaOH (caustic) as a scrubbing medium for the PBOX process to replace Na2CO3) (soda ash). This will include a dedicated storage tank for high concentration NaOH (50%) and dedicated storage for low concentration NaOH (~2%), which is fed directly into the gas scrubbers." There is no reference to the Caustic Facility in the EMR 2022-2023. No evidence has been provided relating to the location and design and construction in accordance with the WMP.	The Operator has outlined that construction for the Caustic Facility is completed. Located in the mill area and runoff from that area is contained and managed. The Operator advised "These facilities are located within the mine levee wall and a such drainage during construction reports to the open pit or the nearest sump in accordance with the WMP."
58.a.iii	construction and development of Reagent Mixing Facility; 58.a.iii		1							4	Full Compliance	EMR 2022-2023 dated 31Aug2023. January 2020 MMP. The January 2020 MMP includes reference to the Reagent Mixing Facility proposed to be located immediately east of the Concentrator. There is no reference to the Reagent Mixing Facility in the EMR 2022-2023. No evidence has been provided relating to the location and design and construction in accordance with the WMP.	The Operator has advised that construction for the Reagent Mixing Facility is completed. The Operator advised "These facilities are located within the mine levee wall and a such drainage during construction reports to the open pit or the nearest sump in accordance with the WMP."

Authorisation Co	mpliance Work	book - Operator													
5 May 2022 Authorisation Condition No.		Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
58.a.iv	58.a.iv	construction and development of Copper Mud Facility;		1								4	Full Compliance	EMR 2022-2023 dated 31Aug2023. The January 2020 MMP states "Copper mud will also be introduced as a substitute for copper sulphate pentahydrate. Copper mud is a by-product of the refining processes. The material will be leached to extract copper into solution where it will be used in the same way as the existing copper sulphate pentahydrate. A dedicated copper mud leaching facility is proposed to be constructed. There would be negligible change in risk to the environment as a result of this substitution.	
58.a.v	58.a.v	construction and development of Lead Concentrate Storage Facility;		1								N/A	Not Applicable		Not constructed. If built, will be in the mill area and runoff from that area is contained and managed.
58.a.vi	58.a.vi	expansion of the concentrate storage shed and use of external hardstand area;		1								N/A	Not Applicable		Not constructed. If built, will be in the mill area and runoff from that area is contained and managed.
58.b	58.b	Wastes generated from the operation of the Gypsum Plant must be managed in accordance with Condition 63.							1			N/A	Not Applicable		Future item. Gypsum Plant has not been constructed.
Water Management a 59		Until the AMP (including Environmental Management Plans and sub- plans) is approved by the Department in writing, the Operator must prepare, review and include the following for each MMP and where appropriate each MMP amendment, a Water Management Plan which includes:										N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.a	59.a	modelling of surface water at and around the Mine;		1							1	N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.b	59.b	a whole of Mine water balance which takes account of the modelling of surface water;		1		1					1	N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.c	59.c	calibration of the modelling of surface water to confirm its accuracy;		1							1	N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.d	59.d	a written plan detailing how water at the Mine will be managed for the forthcoming wet season;		1		1					1	N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.e	59.e	a plan of actions which will be undertaken to reduce the risk of any releases from AMD storage structures;		1							1	N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.f	59.f	a plan of actions, including engineers' reporting schedules, which will be undertaken to ensure the structural integrity of all AMD storage structures;		1							1	N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.g	59.g	a plan of actions which will be undertaken to ensure seepage from AMD storage structures is minimised including, where required, timelines for repairing damaged or installing new seepage management infrastructure.		1		1					1	N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.

Authorisation Co	mpliance Wor	kbook - Operator													
5 May 2022	18 June 2022 Authorisatio	L n Condition/Requirement	Air Quality (dust & sulphur dioxide, ransport)	surface Water (River, Creek, Artificial dams)	Marine Waters (Bing 3ong, marine ediments)	Groundwater	iver)	Rehabilitation terrestrial, diversion & NOEF)	Naste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
60	60	From the date of authorisation of the Overburden Management Project, water-related activities involving interfering with waterway and water extraction must be undertaken in accordance with the Water Act 1992, and where required, appropriate licenses/approvals are obtained from the responsible agency prior to commencement of the works. The Operator must ensure:	A	1	2					O ii		4	Full Compliance	Groundwater Extraction Licence for Bing Bong. Correspondence between DEPWS and Operator relating to Water Extraction Licence Application - Open Pit. BBLF licence granted on 7Apr2022. Correspondence between Operator and DITT relating to Bore Work Permit (WMD Geotech monitoring bores). BCPNA06954 - Pre-Works Notification dated 9Feb2023. BWP BCNA06954 - mended dated 10Mar2023. Permit to Interfere with a Waterway - Clean Water Drain dated 26May2022. 2022-2023_BB Federation Bore (2014) Groundwater Extraction Records undated. Northern Clean water drain correspondence (to DITT and DEPWS) re approval, commencement and annual report Permit number: IWW:MRM-001. Correspondence between Operator and DITT relating to subject: FW_ Special Conditions Annual Reporting - MRM-001 dated 28Jul2022. Briefing Note subject: 2022 Annual Report - Northern Clean Water Drain (Permit IWW:MRM-001 dated 14Jul2022. Permit to Interfere with a Waterway - Permit # IWW:MRM-001 Correspondence between Operator and DITT relating to Bore Work Permit BCPNA06954 - Pre-Works Notification.	The Operator advised "As per correspondence and letters, MRM obtained a groundwater extraction licence to service water requirements at MRM's Bing Bong Loading Facility. The Licence permits the extraction of 51 megalitres per year (ML/yr) of groundwater, expiring on 31 March 2032. As per the correspondence, letters and data provided, a NOEF Clean Water Drain was approved by Department of Environmental Parks and Water Security (DEPWS) on 26 May 2022 and officially commenced on 5 June 2022." Provided evidence that the BBLF groundwater extraction is below 51ML 2022-23. Operator advised that no other licences or permits have been issued to MRM under the Water Act during the audit period. They are in the process of identifying a consolidated list of bores required for an annual period to apply for approval. Work on the cleanwater drain is still underway and completion criteria has not yet been met.
60.a	60.a	activities involving disturbance must not commence until required studies and/or trials to inform future design, construction and/or operation, as detailed in the approved MMP, are completed;		1		Ī					1	N/A	Not Applicable		There were no major works with water related activities interfering with waterways or bores in the audit period so no specialist studies or trials or ongoing inspection were required. The MMP does not include requirement for bores or drains.
60.b	60.b	works are conducted in accordance with a valid AAPA certificate;		1						1		4	Full Compliance	AAPA C92-91 Loading Facility - West Island - 1992. AAPA Certificate C2004083 (supersedes C2004013).	Relevant works in the audit period are related to groundwater extraction from an existing borefield at Bing Bong Loading Facility and WMD bores. The Operator advised "The WMD bores are within an area of the TSF covered under an existing AAPA Certificate C2004083 (supersedes C2004013)."
60.c	60.c	detailed designs, where nominated in the approved MMP, are developed and implemented in consultation with required experts, including but not limited to ecology, engineering and any other experts as appropriate;		1							1	N/A	Not Applicable		There were no major works with water related activities interfering with waterways or bores in the audit period so no specialist studies or trials or ongoing inspection were required. The MMP does not include requirement for bores or drains.
60.d	60.d	regular inspections and maintenance are undertaken to ensure design objectives continue to be satisfied.		1				_			1	N/A	Not Applicable	2022 Annual Report – Northern Clean Water Drain (Permit IWW:MRM-001)	The 2022 Annual Report – Northern Clean Water Drain states "MRM has not included any information on the erosion and sedimentation of the stream in this update because construction is not complete and revegetation has not yet commenced."
61	61	The Operator must complete translocation of the Purple-crown Fairy Wren in accordance with the approved MMP, prior to commencement of works on the Old McArthur River Channel plug.						1				N/A	Not Applicable	EMR 2021-2022 Executive Summary states: "Key environmental activities conducted during the reporting period included: • Successful completion of the Purple-crowned Fairy Wren translocation, with dominant males from all five translocated groups defending territories and multiple successful breeding seasons." The translocation of the Purple-crown Fairy Wren is a success story for the previous audit period.	
62	62	The Operator must erect and maintain warning signage that:											Refer to sub conditions	Memorandum subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. Correspondence between Operator and NITT relating to Condition 62.c.iii.d.	

Authorisation Co	ompliance Work	book - Operator												
5 May 2022 Authorisation Condition No.			Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams)	Bong, marine sediments)	Groundwater Aquatic fauna (fish	river) Vegetation & Rehabilitation (terrestrial, diversion &	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
62.a	62.a	is permanent and weatherproof;							1		4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. Photographs show the warning signage appears sturdy and permanent in nature. Where signs require maintenance the memo advises that will be undertaken in the dry season. Signage requiring replacement from 2022 appears to have been undertaken based on new photos for 2023.	
62.b	62.b	contains specific wording agreed to by the Chief Health Officer of the Northern Territory;							1		4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. Letter dated 04Feb2015 to Chief Health Officer from Operator. Letter dated 04Feb2015 to Chief Health Officer from Operator advising of the agreed wording to be used on signage is what is shown on them from the inspection.	
62.c	62.c	is located:										Refer to sub conditions		
62.c.i	62.c.i	at appropriate distances and frequency along the waterway;							1		4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023.	Signs that were missing or difficult to read in January 2022 appear to have been replaced based on January 2023 inspection.
62.c.ii	62.c.ii	as a minimum at all access points, including but not limited to crossings, vehicle tracks and walking tracks.							1		4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023.	Signage at location 41 was removed in the audit period. The Operator advised that location 41 is well within the fenced area and the access would be from location 6 where a sign remains.
62.c.iii	62.c.iii	along the length of:										Refer to sub conditions		
62.c.iii.a	62.c.iii.a	Barney Creek downstream to its junction with the McArthur River;							1		4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. This sign could not be identified in the photo on the Warning Signage Inspection - January 2022 and had the text "Location 40 – Good, overgrown vegetation surrounding it." It remains identical in the January 2023 audit.	
62.c.iii.b	62.c.iii.b	Barney Creek upstream to a point a short distance upstream of where the Carpentaria Highway crosses Barney Creek;							1		4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. Warning Signage Inspection - January 2023 (memo dated 1Feb2022) viewed confirming no access signage is in place in all locations (refer locations 7 and 8).	
62.c.iii.c	62.c.iii.c	Surprise Creek to approximately the location of SW29;							1		4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. Operator Warning Signage Inspection - January 2023 photos viewed confirming no access signage is in place in all locations. Location 44 is the approximate location of SW29 (with 43 and 42 also relevant).	
62.c.iii.d	62.c.iii.d	Bing Bong shipping channel and in the immediate area surrounding the shipping channel and the swing basin.							1		4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. Correspondence between Operator and DITT relating to Condition 62.c.iii.d. Warning Signage Inspection - January 2023 showed signage is located at each land entry point to the BBLF, which surround the water access. However, there was no evidence of signage along the length of the shipping channel and in the immediate area surrounding the shipping channel and swing basin. The Operator advised "MRM have provided correspondence to the Department on the intent of this condition." and " MRM are waiting on formal confirmation to be provided by the Department." Authorisation dated 17May2023 has not changed this condition.	

Authorisation Co	omnliance Work	hook - Onerator												
5 May 2022 Authorisation	18 June 2021	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams)	Marine waters (Bing Bong, marine sediments)	Groundwater Aquatic fauna (fish	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
63	63	Wastes generated from operation of the Water Treatment Plant and Gypsum Plant must be disposed in accordance with concepts and management systems detailed in the approved MMP, ensuring:										Refer to sub conditions		
63.i	63.a.i	trials for the permanent disposal of Gypsum Plant and Water Treatment Plant wastes must be undertaken to inform final material placement;						1			N/A	Not Applicable		Future item. Water treatment plant has not been operational during the audit period and the gypsum plant is not constructed (planned for 2024).
63.ii	63.a.ii	the ITRB or an approved qualified and experienced independent third party endorse the waste disposal strategy, if the wastes are to be placed in the TSF; or						1			N/A	Not Applicable		Future item. Water treatment plant has not been operational during the audit period and the gypsum plant is not constructed (planned for 2024).
63.iii	63.a.iii	the ICE or an approved qualified and experienced independent third party endorse the waste disposal strategy, if the wastes are to be placed in the NOEF.						1		1	N/A	Not Applicable		Future item. Water treatment plant has not been operational during the audit period and the gypsum plant is not constructed (planned for 2024).
64	64	Water storage structures into which the Operator places or directs AMD must be designed, constructed and managed by the Operator to minimise to as low as reasonably practicable contaminants entering the Receiving Environment. In this regard the water storage structures into which the Operator is authorised to place or direct AMD whilst they continue to meet the requirements of this Condition are as follows:		1							3		Dams and Dumps Register 2022. Dams and Dumps Register 2023. EPROD Construction Report dated Nov2022. SPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Water balancing modelling for the McArthur Mine in support of the 2021/22 wet season TARP dated 20Dec2021. BBLF Inspection Forms dated 14Jul2022 to 25Nov2022. EMP Bing Bong Loading Facility dated 31Mar2021. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023 (after the audit period). 2022/23 Site Water Balance for the Bing Bong Loading Facility dated 17Aug2023 (after the audit period). BBLF Dam TARP summary tables dated 17Aug2023. MRM Dam TARP summary table dated 17Jan2023 (rev 0, 23Dec2022). The water balance modelling reports for BBLF and Mine for 2022/23 were prepared in July 2023 (after the audit period). 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report states "The Mine water balance was assessed for the next four years of operations commencing November 2022, including the 2022/23, 2023/24, 2024/25 and 2025/26 wet seasons." However, the TARP summaries were prepared earlier (but still not before the wet season) There are no new actions listed in the Dams and Sumps Register since December 2021.	B
64.a	64.a	NOEF Southern Perimeter Runoff Dam (SPROD)		1							3	Part Compliance (High)	Dams and Sumps Register 2023. Dams and Dumps Register 2022. SPROD Construction & Commissioning Report dated Oct2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023 (after the audit period). Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage. No evidence was provided of weekly visual inspections for SPROD, SPROD Dam Safety Emergency Plan and SPROD OMS manual.	SPROD Construction & Commissioning Report states "The construction of SPROD was carried out by an experienced team under the supervision of a construction supervisor." and "Complete weekly visual inspections of the dam, as per the Operations, Maintenance and Surveillance Manual, looking for signs of instability, liner failure/defects, areas of disturbance under the liner, settlement, liner lifting and evidence of seepage." SPROD Construction & Commissioning Report dated Oct2022 recommends weekly visual inspections. OFI: Provide confirmation that the weekly inspections of the SPROD and EPROD are being undertaken in accordance with ANCOLD (2003), and provide current versions of the Dam Safety Emergency Plan and Operations, Maintenance and Surveillance (OMS) manual.
64.b	64.b	NOEF South East Perimeter Runoff Dam (SEPROD);		1							4	Full Compliance	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023 (after the audit period). Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage.	

Authorisation Co	mpliance Workbook - Operator													
5 May 2022 Authorisation	18 June 2021	Air Quality (dust & sulphur dioxide, transport)	Surtace Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
64.c	NOEF Western Perimeter Runoff Dam (WPROD); 64.c		1								4	Full Compliance	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023 (after the audit period). Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage.	
64.d	NOEF Eastern Perimeter Runoff Dam (EPROD); 64.d		1								2	Part Compliance (moderate)	Dams and Sumps Register 2023. Dams and Dumps Register 2022. EPROD Construction Report dated Nov2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023 (after the audit period). Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage. EPROD Construction Report states "Routine Visual Inspections have been undertaken by MRM Geotechnical Department personnel. Review of the routine visual inspection reports indicate that inspection frequency has not achieved the minimum weekly intervals (i.e. twice weekly to weekly as per ANCOLD (2003), for a Significant consequent category dam). It is recommended that MRM undertake Routine Visual Inspections twice weekly to weekly as per ANCOLD guidelines." EPROD Construction Report states "ANCOLD (2003) suggest that a Dam Safety Emergency Plan (DSEP) be prepared for all dams where there is a potential for the loss of life in the event of a dam failure. The EPROD DSEP is currently in draft form and is recommended it be completed and implemented in a timely manner. ANCOLD (2003) also recommends that all dams Consequence Category greater than "Very Low" should have an Operations, Maintenance and Surveillance (OMS) manual. The EPROD OMS manual is also in draft format at the time of writing and is recommended it be completed and implemented in a timely manner."	conformance audits identified liner installation issues and missing QA documentation, these items are discussed further in reports attached in Appendix D. The liner QA conformance audit undertaken on the Fabtech documentation concluded that the installation of the HDPE geomembrane generally complied with the requirements of the Technical Specification. However, with the missing documentation relating to the installation by Geotest, the same conclusion was unable to be made." OFI: Refer to Condition 64.a. No OFI is prepared for the inability to verify the installation of the HDPE liner by Geotest as the construction is completed and there is no reasonable prospect of obtaining this documentation.
	Central West A Sump (CWAS); 64.e		1								N/A	Not Applicable		This sump has been removed from the Authorisation issued 5May2022. The Operator advised "CWAS was decommissioned in June 2021".
	Central West C Sump (CWCS); 64.f		1								4	Full Compliance	Dams and Sumps Register 2021. Dams and Sumps Register 2022. Removed from the Variation 5May2022. Inspected at least monthly during the previous audit period as documented in the Dams and Sumps Registers.	This sump has been removed from the Authorisation issued 5May2022. The Operator advised "CWCS was decommissioned in June 2022. In the Dams and Sumps register it is called "Charlie Sump"." OBS: There is a period between 5 May 2022 and June 2022 where this sump may have been used for AMD storage without approval. Consider documenting when structures are decommissioned.
64.e	Mill Anti-Pollution Pond (Mill APP); 64.g		1								4	Full Compliance	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage.	
64.f	Mill Concentrator Runoff Pond (Mill CRP); 64.h		1								4	Full Compliance	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage.	

Authorisation Co	mpliance Work	ook - Operator					. Va						Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Condition/Requirement	Air Quality (dust & sulphur dioxide, rransport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing	Bong, marine sediments)	oroundwater Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
64.g	64.i	Open Pit Van Duncan's Dam (OP VDD);		1							4	Full Compliance	Dams and Sumps Register 2021. Dams and Sumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected most months during the audit period. OP VDD is documented as Duncan' Dam in the Dams and Sumps Registers. There is a TARP for this storage.	5
64.h	64.j	Open Pit Pete's Pond (OP PP);		1							4	Full Compliance	Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected in most months during the audit period. OP PP is documented in the Dams and Sumps Registers as Petes Pond. There is a TARP for this storage.	
64. i	64.k	Open Pit Lake Archer (OP LA);		1							4	Full Compliance	Dams and Sumps Register 2021. Dams and Sumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected most months during the audit period. OP LA is documented in the Dams and Sumps Registers as Lake Archer. There is a TARP for this storage.	
64 .j	64.1	Mill Old Stores Dam (Mill OSD);		1							4	Full Compliance	Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. No inspections monthly during the audit period. Mill OSD is not documented in the Dams and Sumps Registers.	The Operator advised in the previous audit "The Mill Old Stores Dam, is actually a small 5m x 5m sump. A pump was removed from the sump over the Dry Season. This is the only recent history of maintenance for this water storage, as it has been dry for some time now. MRM will seek to have it removed from the VoA in the next amendment." This sump has not been removed from the Authorisation dated 17May2023. The Operator advised "Collects runoff from the mill and raw water overflow. Pumped back to mill or overflows to a drain that reports to Lake Archer. No documented inspections. Located in an operational area that has a high level of interaction, i.e. any issues would be picked up. Clay lined, not HDPE."
64.k	64.m	Open Pit Pond 2 (OP P2);		1							4	Full Compliance	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage.	
	64.n	Central East 1 Sump (CE1S);		1							N/A	Not Applicable		The Operator advised the long term CEBS has been constructed and replaces CE1S which was decommissioned in May 2021. This sump has been removed from the Authorisation issued 5May2022.
64.1	64.0	NOEF East Drain Sump (EDS);		1							4	Full Compliance	Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Water Management Plan Table 8. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023 (after the audit period). This 97 ML sump is listed as having no liner in Table 8 of the Water Management Plan. This storage is listed with a mine water storage capacity of 97 ML and stored volume of 0.09ML on 1 November 2022 in the 2022/23 Annual Site Water Balance for the McArthur River Mine.	Decommissioned. No longer included in the 17May2023 Authorisation. "The Operator advised that "formal" inspections of this sump is not conducted due to the frequency of dewatering crew activities and stated "no plans to line the EDS as it will soon be replaced by a lined extraction well."
64.m	64.p	NOEF West D Sump (WDS);		1							4	Full Compliance	Dams and Sumps Register 2021. Dams and Sumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected most months during the audit period as documented in the Dams and Sumps Registers.	

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5 May 2022 Authorisation Condition No.		Condition/Requirement	Air Quality (dust { sulphur dioxide, rransport)	Surface Water (Ri Creek, Artificial da	Marine Waters (B 3ong, marine sediments)	Groundwater	iver)	Vegetation & Rehabilitation (terrestrial, divers NOEF)	Maste (general, n rock, tailings)	C ommunity (loca ndigenous & pub	Monitoring & Reporting	Score	Compliance Level		
64.n	64.q	NOEF Mine Infrastructure Area Sump (MIAS);	7 6, 1	1								4	Full Compliance	Dams and Sumps Register 2021. Dams and Sumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected most months during the audit period. MIAS is documented in the Dams and Sumps Registers as MIA Sump.	
64.0	64.r	NOEF West A Sump (WAS);		1								4	Full Compliance	Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021.	Collects runoff / seepage from the NOEF. Outflow reports into SPROD via culvert. documented inspections. Dewatering inspect on daily drive around when it is operating.
64.p	64.s	NOEF North East Alpha Sump (NEAS);		1								3	Part Compliance (High)	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Water Management Plan Table 8. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance dated . No documented inspections since 30May2022. NEAS is documented in the Dams and Sumps Registers as NEA Sump but there is no data for inspections since 30May2022.	This 10 ML sump is listed as having a CCL liner with plans for a BGM liner in Table of the Water Management Plan. Based on 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance this sump was commissioned in 2022-2023 and has no liner. OFI: Document inspections of North East Bravo Sump between June 2022 and Apr 2023.
64.q	64.t	NOEF North West Sump (NWS);		1								4	Full Compliance	Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021.	The Operator advised "Collects runoff / seepage from the NOEF. Outflows pumpe to SEPROD. No documented inspections. Transfers recorded daily. Dewatering inspect on daily drive around when it is operating."
64.r	64.u	NOEF North East Stilling Basin (NESB);		1								N/A	Not Applicable		Future item. Not yet constructed
	64.v	Central East Alpha Sump (CEAS);		1								N/A	Not Applicable	Dams and Sumps Register 2021. Dams and Sumps Register 2022.	This sump has been removed from the Authorisation issued 5May2022. The Dams and Sumps Registers indicate CEAS did not exist in the audit period (it mined out).
64.s	64.w	NOEF Central East Bravo Sump (CEBS);		1								3	Part Compliance (High)	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected most months during the first half of the audit period as documented in the Dams and Sumps Registers as CEB sump. No evidence of inspections after October 2022.	OFI: Document inspections of Central East Bravo Sump between October 2022 an April 2023.
64.t	64.x	NOEF South Stilling Basin (SSB);		1								N/A	Not Applicable	No evidence provided for this structure.	The Operator advised that this storage structure does not exist in the previous at period and it is listed as planned/under construction in the Water Management Plan.
64.u		NOEF South East Alpha Sump (SEAS)		1								4	Full Compliance	Water Management Plan Table 8 and Figure 16a. Water Management Plan Figure 16a does not show SEAS. However, it is included in Table 8 stating CCL & BGM but it is under the planned/under construction heading with storage capacity TBC.	
64.v	64.y	Southern Overburden Emplacement Facility Sump (SOEF Sump);		1								4	Full Compliance	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected most months during the audit period as documented in the Dams and Sumps Registers.	
64.w	64.z	EOEF Low Grade Sump (LGS);		1								N/A	Not Applicable	Sumps Registers.	Future item. The Operator outlines in the status table that EOEF LGS is not yet constructed.

Authorisation Co	ompliance Work	oook - Operator													
Authorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
	64.aa	Rice Paddies Pond (RPP);	_	1								N/A	Not Applicable	Water Management Plan Figure 16a. Water Management Plan Figure 16a advises "this storage has not yet been developed".	This sump has been removed from the Authorisation issued 5May2022.
64.x	64.bb	Bing Bong Surface Runoff Pond 1 (BBSRP1);		1	1							4	Full Compliance	BBLF Environment Management Plan dated 31Mar2021. Routine visual inspection forms dated 14Jul2022, 25Nov2022 and 18Mar2023). Monitoring programs are described for BBSRP1 in BBLF EMP. There is a TARP for this storage but not since 2020/2021 wet season. BBLF EMP states "Surface water is managed by the existing containment storages a BBLF and the following is of note: • All water storages are appropriately sized to capture and retain runoff from the contributing catchments (see Plate 11); • All water storage spillways are appropriately sized (see Section 4.4.2); and • All water storages are appropriately sealed or lined to limit leakage through the base and wall of the dam. The net seepage after mitigation (e.g. lining) is limited to meet MRM's environmental objectives." and "BBLF storages have the following design characteristics: • Spillway capacity of 0.2% annual exceedance probability (AEP) storm event with a 0.3 m freeboard; • Flood inundation immunity from external catchments of <1% AEP, including oceawater storm tides; and • Spill frequency to receiving waters of <1% AEP."	
64.y	64.cc	Bing Bong Surface Runoff Pond 2 (BBSRP2);		1	1							4	Full Compliance	BBLF Environment Management Plan dated 31Mar2021. Routine visual inspection forms dated 14Jul2022, 25Nov2022 and 18Mar2023). Monitoring programs are described for BBSRP2 in BBLF EMP. There is a TARP for this storage but not since 2020/2021 wet season.	Referred to as Bing Bong Site Runoff Pond 2 in 18 June 2021 Authorisation.
64.z	64.dd	Bing Bong Surface Runoff Pond (BBSRP3).		1	1							4	Full Compliance	BBLF Environment Management Plan data 31Mar2021. Routine visual inspection forms dated 14Jul2022, 25Nov2022 and 18Mar2023). Monitoring programs are described for BBSRP3 in BBLF EMP. There is a TARP for this storage but not since 2020/2021 wet season.	Referred to as Bing Bong Site Runoff Pond 3 in 18 June 2021 Authorisation. Note appears to have a typo missing "3".
Water Transfer and D	i Water Transfer and	Discharge The Operator must not transfer water to or discharge water from any water storage structure until:											Refer to sub conditions	WDL Annual Report 31Aug2022. PRO-2200035 Waste Discharge Procedure version 3 18Nov2021 (PRO-OP-0008-2200035). McArthur River Mine - Water Management Plan (May 2022) dated 13May2022. Memorandum Weekly Water Quality Review 5th – 14th February 2023 dated 22Feb2023. Memorandum Weekly Water Quality Review 19th – 21st February 2023 dated 2Mar2023.	The controlled discharge of water off-site has not been undertaken in the audit period and therefore no waste discharge or load tracking records are available.
65.a	65.a	water quality analysis has been received and interpreted by the Operator;		1							1	4	Full Compliance	Water Management Plan dated May2022. Memo Weekly Water Quality Review 5th – 14th February 2023 dated 22Feb2023. Water Management Plan section 3.4.4 states: "Water is not transferred from any water storage structure until water quality analysis has been received and interpreted and the results confirm that the water is suitable for the destination." Memo Weekly Water Quality Review 5th – 14th February 2023 dated 22Feb2023 shows that "UGB1 and 2 are operational and transferring class 6 process water to PP." Results for UGB1 and PP are included in the memo and indicate that water quality analysis is occurring.	The Independent Monitor notes that there were no monitoring results for UGB2 included in Memo Weekly Water Quality Review 5th – 14th February 2023 dated 22Feb2023. However UGB2 was operational and transferring to PP. UGB1 was the worst quality (class 6) and going to PP that also contained class 6 water. It would not change the outcome if there were results for UGB2 given the water could not be worse than class 6.

Authorisation Co	mpliance Work	cbook - Operator													
	18 June 2021 Authorisation Condition No.	Condition/Requirement	'Air Quality (dust & sulphur dioxide, rransport)	surface Water (River, Creek, Artificial dams)	Marine Waters (Bing 3ong, marine ediments)	Groundwater	Aquatic fauna (fish iver)	Vegetation & Rehabilitation terrestrial, diversion & NOEF)	Naste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
65.b	65.b	results confirm the water is suitable for the destination, having regard to the requirements of this document, the approved MMP and any other relevant restrictions on transfer or discharge of water within or from the Mine.	7 61 12	1								4	Full Compliance	Water Management Plan (May 2022) Memo Weekly Water Quality Review 5th – 14th February 2023 dated 22Feb2023 Water Management Plan section 3.4.4 states: "Water is not transferred from any water storage structure until water quality analysis has been received and interpreted and the results confirm that the water is suitable for the destination." Memo Weekly Water Quality Review 5th – 14th February 2023 dated 22Feb2023 shows that "UGB1 and 2 are operational and transferring class 6 process water to PP." Results for UGB1 and PP are included in the memo and indicate that the water quality from UGB1 is appropriate to be transferred into PP.	The Independent Monitor notes that there were no monitoring results for UGB2 included in Memo Weekly Water Quality Review 5th – 14th February 2023 dated 22Feb2023. However UGB2 was operational and transferring to PP. UGB1 was the worst quality (class 6) and going to PP that also contained class 6 water. It would not change the outcome if there were results for UGB2 given the water could not be worse than class 6.
66	66	The Operator is authorised to undertake works to release water from WMD to Little Barney Creek in accordance with previous approvals as defined in Schedule B.		1								N/A	Not Applicable		Construction was complete before the audit period. Schedule B included an MMP amendment to construct the additional discharge point. OBS: As construction of works to release water from WMD to Little Barney Creek is complete, DITT should consider marking this condition as complete.
67	67	From the date of authorisation of the Overburden Management Project, water releases are authorised from the following points: < Authorised Release Points, Receiving Water Body, Latitude, Longitude > *WMD, Little Barney Creek, -16.42635, 136.0693 *Mine Levee Release Point (MLRP), Barney Creek Diversion, - 16.42743, 136.1114 *South-East Levee 1 Release Point (SEL1 RP), Barney Creek Diversion, - 16.42394, 136.1082 *McArthur River Diversion Channel Release Point, McArthur River Diversion, -16.43468, 136.1207		1								N/A	Not Applicable		McArthur River Diversion Channel Discharge Point was not constructed in the audit period. Construction planned for next audit period. The controlled discharge of water off-site has not been undertaken in the audit period.
68	68	The Operator must:											Refer to sub conditions		
68.a	68.a	ensure all offsite water discharges are undertaken in accordance with a valid WDL;		1								N/A	Not Applicable		The controlled discharge of water off-site has not been undertaken in the audit period.
68.b	68.b	only release water for offsite discharge from the WDL approved points;		1								N/A	Not Applicable		The controlled discharge of water off-site has not been undertaken in the audit period.
68.c	68.c	interpret and report all data and results acquired as part of the activity in the Operator's Annual Environmental Mining Report;		1							1	N/A	Not Applicable	Correspondence between Operator and DITT relating to 2022-2023 EMR Submission dated 31Aug2023 (after the audit period). The 2022-2023 EMR Submission Letter states that: "Water management detailed in Section 3.1. No water was discharged during the reporting period. Water transfer data will be included in the annual data package submitted to Department (refer Condition 7 above)."	period.
68.d	68.d	evaluate the performance of this activity in terms of its effectiveness as a management tool;		1							1	N/A	Not Applicable		The controlled discharge of water off-site has not been undertaken in the audit period.
68.e	68.e	by 30 June 2020, characterise total loads of mine-derived contaminants from all source inputs for the 2017-2018 period consistent with Condition 16.b), unless otherwise agreed in writing by the Department.		1							1	4		Email Operator to Department subject MRM Variation of Authorisation Condition (38c); 2017-2018 Mine -Derived Loads dated 8 May 2020. 220508 MRM-DPIR_Condition 38 mine-derived loads. Attachment A - 2017-18 Mine Derived Analyte Loads Assessment.	This condition is marked as completed in the Authorisation dated 17May2023.
69	69	The Operator must in relation to the WMD release point to Little Barney Creek undertake:											Refer to sub conditions		
69.a	69.a	release activity that minimises localised erosion, and utilises suitable energy dissipation and flow spreader structures (e.g. rock basin) and be monitored daily during release events;		1								N/A	Not Applicable		The controlled discharge of water has not been undertaken in the audit period.

Authorisation Co	ompliance Workb	ook - Operator												
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023 Comments 2023
69.b	69.b	remediation in the event of unacceptable erosion occurring at the Carpentaria Highway culvert system to the satisfaction of the Department of Infrastructure, Planning and Logistics and the Department;		1								N/A	Not Applicable	Surface Water Monitoring Report 2022/2023 dated 5Jul2023. The Operator advised "No remediation was necessary or occurred over the auder period. The review of Little Barney Creek geomorphic characteristics using the LiDAR noted that "little to no erosion has occurred in the vicinity of the culvert crossing, aside from minor gully erosion that occurred due to natural processes."
69.c	69.c	a cross-section profile survey immediately up-stream and down- stream of the Carpentaria Highway crossing, prior to and following each wet season;		1							1	4	Full Complianc	Memo WRM to Operator subject: Review of Little Barney Creek geomorphic characteristics dated 21Mar2023. Surface Water Monitoring Report 2022/2023 dated 5Jul2023. Review of Little Barney Creek geomorphic characteristics dated 21Mar2023 stated "based on the available aerial photography and LiDAR ground survey information there has been no significant change to the Little Barney Creek channel bed and banks downstream of the WMDRP. On this basis, any discharges from the WMDRP undertaken since 2018 has not resulted in a significant change in geomorphic characteristics of Little Barney Creek." The memo/review includes cross sections immediately upstream and downstream of the Carpentaria Highway crossing and given they are annual from 2018 to 2022 (in August, September or October) they are prior to and following each wet season.
69.d	69.d	each wet season quantification of any significant changes to creek morphology as function of time by documenting at a minimum morphology prior to first water release, and following the last water release. This could be achieved, for example, using a drone survey of the drainage system between the flow outlet and Barney Creek Diversion using a consistent flight path, with the resulting image overlayed on appropriately sized grid (e.g. 2.5 x 2.5 m);		1							1	4	Full Compliand	Memo WRM to Operator subject Review of Little Barney Creek geomorphic characteristics dated 21Mar2023. Review of Little Barney Creek geomorphic characteristics dated 21Mar2023 stated "based on the available aerial photography and LiDAR ground survey information there has been no significant change to the Little Barney Creek channel bed and banks downstream of the WMDRP. On this basis, any discharges from the WMDRP undertaken since 2018 has not resulted in a significant change in geomorphic characteristics of Little Barney Creek"
69.e	69.e	measure and record flow duration, flow rate and volume of all water released from WMD into Little Barney Creek;		1							1	N/A	Not Applicable	The controlled discharge of water has not been undertaken in the audit period le
69.f	69.f	ensure all evidence of continuous flow in Little Barney Creek along the length of the drainage system between WMD release outlet and Little Barney Creek Diversion Channel is available for inspection;		1							1	N/A	Not Applicable	The controlled discharge of water from the WMD RP to Little Barney Creek has been undertaken during the audit period.
69.g	69.g	ensure the surface water monitoring schedule for the activity includes SW06, which must be assessed for identical parameters as defined for SW03. At monitoring points SW03 and SW06:		1							1	4	Full Complianc	Environmental Monitoring Schedule Rev 3 dated 25Oct2022. The MRM Environmental Monitoring Schedule 2021-2-22 Rev 3 dated 25Oct2022 includes all the parameters required at SW03 sampling point at SW06 also. The controlled discharge of water from the WMD RP to Little Barney Creek has been undertaken during the audit period. It is noted that multiple versions of the Environmental Monitoring Schedule we issued during the audit period.
69.g.i	69.g.i	Field parameters must also be measured daily during water release from WMD into Little Barney;		1							1	N/A	Not Applicable	Environmental Monitoring Schedule Rev 3 dated 25Oct2022. No discharge occurred during the audit period.
69.g.ii	69.g.ii	The surface water monitoring analytical suite must include thallium, boron and cobalt;		1							1	4	Full Complianc	Environmental Monitoring Schedule Rev 3 dated 25Oct2022. Analytical suite includes thallium, boron and cobalt. No discharge occurred during the audit period.
69.g.iii	69.g.iii	The surface water monitoring be continued for a further two weeks following completion of the release activities for the season or until field parameters have returned to baseline levels;		1							1	N/A	Not Applicable	Environmental Monitoring Schedule Rev 3 dated 25Oct2022. No discharge occurred during the audit period.
69.h	69.h	Measure total loads of analytes (including lead and zinc) from all controlled discharge activities entering McArthur River at location SW06 or an alternate location as agreed by the Department;		1							1	N/A	Not Applicable	No discharge occurred during the audit period.

Authorisation Co	mpliance Work	book - Operator												
5 May 2022 Authorisation Condition No.		Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Creek, Artificial dams) Marine Waters (Bing Bong, marine	Groundwater	Aquatic fauna (fish river) Vegetation &	Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings) Community (local	indigenous & public) Monitoring &	Reporting	ore (Compliance Level	Evidence 2023	Comments 2023
69.i	69.i	Interpret the data acquired as part of the activity and its effectiveness and report in the Operator's Annual EMR in accordance with Condition 9.		1					1	. N/	/A 1		Correspondence between Operator and DITT relating to 2022-2023 EMR Submission. The 2022-2023 MRM Submission Letter states that: "Water management detailed in Section 3.1. No water was discharged during the reporting period. Water transfer data will be included in the annual data package submitted to Department (refer Condition 7 above)."	No discharge occurred during the audit period.
70	70	The Operator is authorised to undertake water management trial in accordance with:										Refer to sub conditions		Future item. No trials have occurred.
70.a	70.a	concepts detailed in the approved MMP, ensuring the trial is designed to manage and control all impacted surface water runoff in accordance with the Water Management Plan:		1						N/	/A 1	Not Applicable		Future item. No trials have occurred.
70.a.i	70.a.i	Irrigation of Treated Water – Open Woodland Irrigation;		1						N/	/A 1	Not Applicable		Future item. No trials have occurred.
70.a.ii	70.a.ii	Irrigation of Treated Water – Phytoremediation;		1						N/	/A 1	Not Applicable		Future item. No trials have occurred.
70.a.iii	70.a.iii	Lowering of surface water elevations – Evapotranspiration;		1						N/	/A 1	Not Applicable		Future item. No trials have occurred.
70.a.iv	70.a.iv	Sulfate Treatment System – Passive engineered wetland;		1						N/	/A !	Not Applicable	Indicators of Biogenic Water Treatment Processes WATER MANAGEMENT DAM dated 15Dec2020, V.1 (before audit period). Section 4.1 of the Biogenic Water Treatment Processes report states: "several factors that are likely to contribute to the WMD essentially functioning as a water treatment wetland: The dam was not cleared of vegetation, and certain sections contain significant surface area of reeds, trees etc. The original soil profile has remained in place providing a microbial habitat, nutrients and a substrate for vegetation. It contains a functional aquatic ecosystem. " MRM has outlined that the Water Management Dam acts as a wetland to some degree, without engineering input.	The Operator advised "Passive engineered wetland trials have not been completed because the Water Management Dam is already functioning as a passive water treatment wetland."
70.a.v	70.a.v	Sulfate Treatment System – Active Bioreactor;		1						N/	/A 1	Not Applicable		Future item. The Operator advised that there has been no progress on the Active Bioreactors, and that this is unlikely to be practical/feasible.
70.b	70.b	Detailed designs, where nominated in the approved MMP, are developed in accordance with the concepts outlined in the approved MMP, and endorsed by relevant independent third party, prior to construction.		1						N/	/A 1	Not Applicable		Future item. There were no relevant designs in the audit period.
71	71	At the conclusion of the trials in Condition 70, the Operator must apply in writing to the Department for approval of full-scale implementation.		1					1	N/	/A 1	Not Applicable		Future item. No trials have occurred.
72	72	Water management using the Centre Pivot Irrigator is authorised:										Refer to sub conditions		Centre Pivot Irrigator was not in use in the audit period (is yet to be relocated to mine levee). It was decommissioned several years ago. Not operated in the 2020, 2021 or 2022 audit periods.
72.a	72.a	within the Mine Levee in accordance with concept previously approved, as defined in Schedule B;		1						N/	/A 1	Not Applicable		Centre Pivot Irrigator was not in use in the audit period (is yet to be relocated to mine levee). Not operated in the 2020, 2021 or 2022 audit periods.
72.b	72.b	adjacent to the TSF in accordance with concept presented in the approved MMP;		1						N/	/A 1	Not Applicable		Centre Pivot Irrigator was not in use in the audit period (is yet to be relocated to mine levee). Not operated in the 2020, 2021 or 2022 audit periods.
72.c	72.c	to be configured to maximise evaporation and minimise surface spray drift, surface runoff and infiltration into underlying natural soils.		1						N/	/A 1	Not Applicable		Centre Pivot Irrigator was not in use in the audit period (is yet to be relocated to mine levee). Not operated in the 2020, 2021 or 2022 audit periods.
Perimeter Run-Off Da	a Perimeter Run-Off	Toams - SPROD, SEPROD, WPROD and EPROD The Operator is approved to develop SPROD and SEPROD in accordance with relevant documents defined in Schedule B;		1						N/	1 A'	Not Applicable		Operator advised that SPROD and SEPROD were in use in the audit period but were constructed prior to the audit period. Liner and spillway construction were undertaken on SPROD 2019 and 2020 with a construction report prepared in the audit period.
74	74	The Operator is authorised to complete works to construct EPROD and WPROD in accordance with following:										Refer to sub conditions		
74.a	74.a	EPROD:										Refer to sub conditions		

Authorisation Co	mpliance Work	kbook - Operator						≪						Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	vir Quality (dust & ulphur dioxide, ransport)	urface Water (River, reek, Artificial dams)	Marine Waters (Bing song, marine ediments)	Sroundwater	Aquatic fauna (fish iver)	regetation & Rehabilitation & Cerrestrial, diversion & COEF)	Vaste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & teporting	Score	Compliance Level		
		as previously approved and defined in Schedule B, ensuring that only benign material be used in the construction of the western embankment wall;	S S tt	v 0			4 '=	> K = 2	> =	O .=	2 12			McArthur River Mining Eastern Perimeter Runoff Dam Construction Report dated Nov2022.	
74.a.i	74.a.i			1								4	Full Compliance	Eastern Perimeter Runoff Dam Construction Report Section 3 Embankment Materials and Borrow Areas states in Table 3-1 that the material requirements and for the western embankment construction noted benign material.	
74.b	74.b	WPROD:											Refer to sub conditions		
74.a.i	74.a.i	CWNOEF and NOEF West D Amendment, as defined in Schedule B; and		1								N/A	Not Applicable	Western Perimeter Runoff Dam Construction and Commissioning Report (37649_Western PAF Runoff Dam As-Constructed Report_GHD_Rev0_170714). WPROD was completed in 2017.	Completed before the audit period. WPROD was completed in July 2017 (before the audit period commenced) and Independent Monitor sighted a completion report dated 14Jul2017.
74 .a.ii	74.a.ii	WPROD and Western Surface Water Management Design Update (GHD Memo), as defined in Schedule B.		1								N/A	Not Applicable	Western Perimeter Runoff Dam Construction and Commissioning Report (37649_Western PAF Runoff Dam As-Constructed Report_GHD_Rev0_170714). WPROD was completed in 2017.	Completed before the audit period. WPROD was completed in July 2017 (before the audit period commenced) and Independent Monitor sighted a completion report dated 14Jul2017.
75	75	The Operator must construct EPROD and WPROD in accordance with the following regime in the event groundwater dewatering is necessary:											Refer to sub conditions		The Operator advised "no groundwater dewatering was required for either WPRC or EPROD".
75.a	75.a	six hourly monitoring of field parameters for the first 24 hours of dewatering. Should parameters not stabilise during the first 24 hours then six hourly monitoring must continue until stabilisation has occurred;		1		1					1	N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPRC or EPROD".
75.b	75.b	field parameters must be taken daily following the first 24 hour period. Should parameters change more than 20% then the frequency must increase to every 12 hours until parameters have stabilised;		1		1					1	N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPRC or EPROD".
75.c	75.c	field parameters must include pH, specific electrical conductivity (SEC), temperature, REDOX and dissolved oxygen;		1		1					1	N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPRO or EPROD".
75.d	75.d	water samples must be taken and analysed at the commencement of dewatering at the end of the first 24 hours, and then weekly sampling and analysis of dewatering water for the remainder of the construction;		1		1					1	N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPRO or EPROD".
75.e	75.e	additional sampling and analysis must be undertaken if there is a substantial change in field parameters (approximately 30%);		1		1					1	N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPRC or EPROD".
75.f	75.f	analysis must include: specific electrical conductivity (SEC), major ions (Ca, K, Mg, Na, Cl, CO3, HCO3 and SO4), Al, As, Cd, Co, Cu, Fe, Mn, Ni, Pb, Se and Zn;		1		1					1	N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPRC or EPROD".
75.g	75.g	field parameters and samples for analysis must be taken from the dewatering source, not the receiving storage;		1		1					1	N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPRC or EPROD".
75.h	75.h	if flow meters fail, then dewatering must cease until they are repaired or replaced;		1		1					1	N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPRO or EPROD".
75.i	75.i	field water quality parameters, flow meter volumes and laboratory analysis must be submitted to Department on a monthly basis;		1		1					1	N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPRO or EPROD".
75.j	75.j	any indication of fracturing and/or caverns (Karstification/dissolution features) must be recorded during logging along with water strikes and estimated yields during drilling;		1		1					1	N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPRO or EPROD".

Authorisation Co	ompliance Workb	pook - Operator												
5 May 2022 Authorisation	18 June 2021	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	iurface Water (River, Creek, Artificial dams) Marine Waters (Bing	song, marine ediments)	Groundwater Aquatic fauna (fish	reer) Cegetation & Rehabilitation terrestrial, diversion &	Maste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
75.k Tailings storage facilit	75.k	Construction reports including QA and QC data endorsed by the ICE must be provided to the Department prior to commencement of operation within 30 days of construction being completed.	A S S		S				0 ::	1	N/A	Not Applicable	Correspondence between DITT and Operator relating to Clarifying compliance requirements for perimeter runoff dams. EPROD Construction Report dated Nov2022.	DITT advised that the intent of subcondition 75k is for the submission of construction reports within 30 days of construction completion, irrespective of whether dewatering has occurred. Condition 75 and its subconditions (including 75k) are N/A as there was no dewatering. Condition 75.k. is revised in the Authorisation dated 17May2023 to be 75 (2) "Prior to use of the structure, submit to the Department construction reports including QA and QC data endorsed by the ICE within 60 days of construction being completed." Evidence of submission of the EPROD Construction Report to DITT and DITT's acknowledgement is provided.
76		From the date of authorisation of the Overburden Management Project, tailings must be managed in accordance with the following:										Refer to sub conditions	MRM TSF Quarterly Report - Q1 2022 December 2021 to March 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q4 October 2022 to December 2022. Acceptance Letter - TSF Quarterly Reports Feb2023. Correspondence between Operator and DITT relating to TSF Quarterly Report _ July 2022 - September 2022. Correspondence between Operator and DITT relating to Auth 0059 - Condition 80 - TSF quarterly reports (June 2021 to Sept 2022) - Acceptance letter. Correspondence between Operator and DITT relating to TSF Quarterly Report October 2022 - December 2022. Correspondence between Operator and DITT relating to TSF Quarterly Report Apr 2022 - June 2022. Correspondence between Operator and DITT relating to TAILINGS STORAGE FACILITY QUARTERLY REPORT (April 2022 – June 2022. Correspondence between Operator and DITT relating to TAILINGS STORAGE FACILITY QUARTERLY REPORT (July 2022 – September 2022. Correspondence between Operator and DITT relating to TAILINGS STORAGE FACILITY QUARTERLY REPORT (July 2022 – September 2022. Correspondence between Operator and DITT relating to TAILINGS STORAGE FACILITY QUARTERLY REPORT (July 2022 – December 2022). The Operator advised that no TSF lifts/raises were commenced during the audit period. Buttressing works commenced with oversight of the ICE, and are ongoing.	
76.a	76. a	be deposited only in Cell 1, Cell 2 or combined Cell 1 and Cell 2;						1			4	Full Compliance	MRM TSF Quarterly Report - Q1 2022 December 2021 to March 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q4 October 2022 to December 2022. Review of the quarterly reports provided (relevant to over half of the audit period) do not indicate tailings being deposited outside of Cell 1 and Cell 2, in compliance with this condition. The following in the Quarterly Report April 2022 to June 2022 implied deposition into Cell 1 and Cell 2 "Water management undertaken during th reporting period-maintained Cell 1 and Cell 2 well below their respective MOLs, while tailings density and deposition were generally within the target/forecast range."	
76.b	76.b	any construction of tailings lift, as approved in Condition 79, be reviewed and endorsed by independent oversight requirements in Condition 48 and 50 or an alternative independent qualified and experienced third party approved by the Department in writing;						1				-	Refer to compliance scored in conditions 48 and 50.	Refer to compliance scored in conditions 48 and 50.
76.c	76.c	construction of the TSF lifts is undertaken in accordance with a valid AAPA certificate;						1			4	Full Compliance	Aboriginal Cultural Heritage Management Plan version 1.1 dated 14Jun2022. Aboriginal Cultural Heritage Management Plan advises that C2004/083 Variation to C2004/013 D89/199; 90/1015.1 is in place for the TSF.	

uthorisation Co	ompliance Worl	kbook - Operator										Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	iurface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine ediments)	Groundwater Aquatic fauna (fish	iver) /egetation & Rehabilitation terrestrial, diversion &	NOEF) Naste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2025	Comments 2023
		the TSF Seepage Interception Trench is fully operational by end of December 2020;	8 8										The Independent Monitor was advised by the Operator that "The construction of the Surprise Creek Interception Trench was complete on 5 November 2020." Condition is obsolete.
76.d	76.d						1			4	Full Compliance		Evidence of operation was observed during the waste rock handling procedures audit conducted on 15June2022
													OBS: DITT should consider marking this condition as complete given the TSF Seepage Interception Trench is fully operational.
76.e	76.e	in the event that future review of the designs or as-built structure by independent experts require additional matters to be addressed, the Operator together with the ICE must provide a written response that justifies the existing design or proposes an alternate design to the satisfaction of the Department.					1		1	N/A	Not Applicable		The Operator confirms that no design changes have been proposed for the TSF during the audit period.
Cell 1 and 2 Cons	t TSF Cell 1 and 2 Co	onstruction											
77	77	From the date of authorisation of the Overburden Management Project, the Operator is approved to develop TSF Cell 1 , Cell 2 and Combined Cell 1 and 2 lifts in accordance with:					1			4	Full Compliance	MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q4 October 2022 to December 2022.	The Operator advised that there was no construction of TSF lifts in the audit period Buttressing work continued.
77.a	77.a	McArthur River Mining Pty Ltd, Tailings Storage Facility, Design Development – Life of Mine Plan, May 2017, as defined in Schedule B;					1			4	Full Compliance	January 2020 MMP MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q4 October 2022 to December 2022. January 2020 MMP section 4.4.2 Life of Mine Plan states: "A LOM Plan for the TSF (TSF LOM Plan) (GHD, 2017) is provided in Appendix I of the Supplementary OMP EIS and presents the preferred design of the TSF over the life of the facility, which includes the following: • removal of TSF Cells 3 and 4 approved under the Phase 3 EIS; • recommissioning of the partially capped TSF Cell 1;	With respect to the discrepancy between the lift stages/heights in the Authorisatic and the approved design for cell 2 stage 7, which is above this height already, DITT advised "Delegate decided formal record of discrepancy on file sufficient - no change to Authorisation required.
		the approved MMP for the following stages:									Refer to sub	adoption of a combined Cell 1/2 over time; and rehandling and reprocessing of tailings prior to disposal in the Open Pit upon cessation of Open Pit mining." Works appear to have been consistent with the above.	
77.b	77.b										conditions		
77.b.ii	77.b.ii	Cell 1 Raise 4 – 10,056.0 mRL;					1			N/A	Not Applicable		Historic item. Works completed before the audit period.
77.b.ii	77.b.ii	Cell 1 Raise 5 – 10,059.0 mRL;					1			N/A	Not Applicable		Historic item. Works completed before the audit period.
77.b.iii	77.b.iii	Cell 2 Raise 6 – 10,061.0 mRL;					1			N/A	Not Applicable		Historic item. Works completed before the audit period.
77.b.iv	77.b.iv	Cell 2 Raise 7 – 10,061.5 mRL;					1			N/A	Not Applicable		Historic item. Works completed before the audit period.
77.b.v	77.b.v	Combined Cell 1 and 2 Raise 1 – 10,062.6 mRL;					1			N/A	Not Applicable		N/A due to lift heights no longer being consistent with approved design. With respect to the discrepancy between the lift stages/heights in the Authorisatio and the approved design for cell 2 stage 7, which is above this height already, DITT advised "Delegate decided formal record of discrepancy on file sufficient - no change to Authorisation required.
77.b.vi	77.b.vi	Combined Cell 1 and 2 Raise 2 – 10,063.8 mRL;					1			N/A	Not Applicable		N/A due to lift heights no longer being consistent with approved design. With respect to the discrepancy between the lift stages/heights in the Authorisatio and the approved design for cell 2 stage 7, which is above this height already, DITT advised "Delegate decided formal record of discrepancy on file sufficient - no change to Authorisation required.

Authorisation Co	ompliance Wor	kbook - Operator														
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			Air C Sulpl	Surf Cree	Mar Bong sedii	Grou	Aqu river	Vego Reha (terr	Was rock	Com indig	Mor	Rep				
		Combined Cell 1 and 2 Raise 3 – 10,065.0 mRL;														N/A due to lift heights no longer being consistent with approved design.
77.b.vii	77.b.vii								1			N,	/A	Not Applicable		With respect to the discrepancy between the lift stages/heights in the Authorisation and the approved design for cell 2 stage 7, which is above this height already, DITT advised "Delegate decided formal record of discrepancy on file sufficient - no change to Authorisation required."
77.b.viii	77.b.viii	Combined Cell 1 and 2 Raise 4 – 10,066.2 mRL;							1			N,	/A	Not Applicable		No works undertaken.
77.b.ix	77.b.ix	Combined Cell 1 and 2 Raise 5 – 10,067.4 mRL;							1			N,	/A	Not Applicable		No works undertaken.
77.b.x	77.b.x	Combined Cell 1 and 2 Raise 6 – 10,068.6 mRL;							1			N,	/A	Not Applicable		No works undertaken.
77.b.xi	77.b.xi	Combined Cell 1 and 2 Raise 7 – 10,069.8 mRL;							1			N,	/A	Not Applicable		No works undertaken.
77.b.xii	77.b.xii	Combined Cell 1 and 2 Raise 8 – 10,071.0 mRL;							1			N,	/A	Not Applicable		No works undertaken.
77.b.xiii	77.b.xiii	Combined Cell 1 and 2 Raise 9 – 10,072.2 mRL;							1			N,	/A	Not Applicable		No works undertaken.
77.b.xiv	77.b.xiv	Combined Cell 1 and 2 Raise 10 – 10,073.4 mRL;							1			N,	/A	Not Applicable		No works undertaken.
77.b.xv	77.b.xv	Combined Cell 1 and 2 Raise 11 – 10,074.6 mRL;							1			N,	/A	Not Applicable		No works undertaken.
77.b.xvi	77.b.xvi	Combined Cell 1 and 2 Raise 12 – 10,075.8 mRL;							1			N,	/A	Not Applicable		No works undertaken.
77.b.xvii	77.b.xvii	Combined Cell 1 and 2 Raise 13 – 10,077.0 mRL;							1			N,	/A	Not Applicable		No works undertaken.
77.b.xviii	77.b.xviii	Combined Cell 1 and 2 Raise 14 – 10,078.0 mRL.							1			N,	/A	Not Applicable		No works undertaken.
78	78	For each lift, the Operator must ensure detailed designs follow the approved McArthur River Mining Pty Ltd Tailings Storage Facility Raising General Specification for Design and Construction; with oversight provided by the ICE consistent with Condition 48.							1			N/	/A	Not Applicable		The Operator advised that there were no lifts in the audit period and no design reports for future lifts have been provided as evidence.
TSF Management	1SF Managemen	The Operator must operate and maintain the TSF in accordance with													Tailings Storage Facility – Operations, Maintenance and Surveillance Manual	TSF OMS Manual version 6 is the latest version approved by the ITRB, provided.
		the most up-to-date TSF Operations Maintenance and Surveillance manual, ensuring:													(version 6 - draft).	Version 7 has been provided to the ITRB for review and endorsement prior to finalising.
		manda, crisaring.													TSF OMS Manual in section 5.3 states that the version is 6 as a draft to reflect	
79	79								1			4	4	Full Compliance	"Update following Cell 1 Stage 5 construction, Cell 2 Stage 7 construction". There has not been a final version of the TSF OMS since 31Jul2020.	
															Those was as evidence of execution of the TCF in a way, that did not alim with the	
															There was no evidence of operation of the TSF in a way that did not align with the TSF OMS Manual.	
79.a	79.a	no discharge of water into the TSF unless												Refer to sub conditions		
		it is water contained within the Tailings stream which is at									+				MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022.	OBS: Table 8-3 of the OMS Manual should be updated to be consistent with TARP
		normal operational slurry densities; or													MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q4 October 2022 to December 2022.	Table 8-10 which specifies density >50% as the target normal range.
															OMS Manual Internal Operator email subject IM Audit - OMS Manual Error dated 22Sep2023.	
															MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022 Section 2.4.1 reports outlined in Section 2.4.1 that the average tailings slurry density for the reporting	
															period was 53.3%, which falls within the target range of 50 - 55%, with 4 instances where densities were not within this range due to a higher water content caused by	
															minor mill processing issues	
															MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022 Section 2.4.1 reports that the average slurry density was 53.3% and was primarily within the	
79.a.i	79.a.i								1				4	Full Compliance	target range of greater than 50% (which is a disparity from the previous Q2	
															Quarterly Reports) and also reported on 7 instances where the densities were not in the target range due to minor mill processing issues causing a higher water content	
															and also resulting in a lower volume of tailings slurry.	
															The target range of average slurry density was different between Q2 (50 - 55%) and Q3 (>50%).	
															Internal Operator email subject IM Audit - OMS Manual Error dated 22Sep2023	
															stated the requirement to update Table 8-3 of the OMS Manual to be consistent with TARP Table 8-10 which specifies density >50% as the target normal range.	
	1						1	1		1	1				I and the second	The state of the s

5 May 2022 Authorisation	ompliance Workbook - Operator 18 June 2021 Authorisation Condition/Requirement Condition No.		Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing	Bong, marine sediments)	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
79.a.ii	It is endorsed by the ITRB;							1			4	Full Compliance	The Operator advised "Inflow to the TSF was limited to tailings slurry and rainfall during the audit period. No other wastewaters were released to the TSF Cells 1 and 2."	
79.b	all Tailings are deposited sub-aerial drying between deposition cycles;	y to allow proper beaching and						1			4	Full Compliance	MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022 Section 1.2 states: "The tailings are deposited sub-aerially through spigots, at approximately 50 metre (m) intervals around the perimeter of the TSF embankment, via 355 mm OD polyethylene (PE) pipes."	
79.c	surface water levels are maintained not come into contact with the emb	-		1				1			4	Full Compliance	Q2 2022 TSF Quarterly Report April 2022 to June 2022. Q3 2022 TSF Quarterly Report July 2022 to September 2 022.	The Operator advised "Decant pond levels for both Cell 1 and Cell 2 were maintained below the respective Maximum Operating Levels (MOL) as detailed ar verified under sections 2.3.1.1. and 2.3.1.2 of the enclosed TSF Quarterly Reports.
79.d	phreatic surface is managed to avoi the embankment. 79.d	compromising the integrity of									4	Full Compliance	MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022 states in the Executive Summary "The TSF continues to operate in accordance with the Operations, Maintenance and Surveillance (OMS) Manual with tailings densities predominately within the target range of 50-55% solids content. Deposition was however lower than forecast for the reporting period due to reductions in mill throughput, which resulted in a decreased tailings rate of raise at the TSF. As noted by the Independent Certifying Engineer (ICE), the piezometers exhibited stable or dissipating pore pressure conditions, and no trends of concern have been observed for the safety of the embankment." MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022 states in the Executive Summary: "Deposition was lower than forecast for the reporting period due to reductions in mill throughput, which resulted in a slightly decreased rate of rise in tailings at the TSF. As noted by the Independent Certifying Engineer (ICE), the piezometers exhibited stable or dissipating poor pressure conditions, and no trends of concern have been observed for the safety of the embankment."	
80	The Operator must provide quarterly t report on the seepage and manageme including the following: 80			1	1			1		1	4	Full Compliance	MRM TSF Quarterly Report - Q1 2022 December 2021 to March 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q4 October 2022 to December 2022. Letter Operator to DITT subject: MRM TAILINGS STORAGE FACILITY QUARTERLY REPORT (December 2021 – March 2022) dated 20Jun2022. INSAR Report dated 8Mar2022. Acceptance Letter - TSF Quarterly Reports Feb2023. Correspondence between DITT and Operator relating TSF Quarterly Report _ July 2022 - September 2022. Correspondence between Operator and DITT relating to TSF Quarterly Report April 2022 - June 2022. Correspondence between DITT and Operator relating to Auth 0059 - Condition 80 - TSF Quarterly reports (June 2021 to Sept 2022) - Acceptance letter. Correspondence between Operator and DITT relating to TSF Quarterly Report _ July 2022 - September 2022. Correspondence between Operator and DITT relating to TSF Quarterly Report _ July 2022 - September 2022. Correspondence between Operator and DITT relating to TSF Quarterly Report December 2021 - March 2022 (noting this is for 4 months rather than a quarter and submitted in the audit period). Correspondence between Operator and DITT relating to TSF Quarterly Report October 2022 - December 2022.	

Authorisation Co	mpliance Workbook - Operator												
	18 June 2021 Authorisation Condition/Requirement	Air Quality (dust & sulphur dioxide, rransport)	surface Water (River, Creek, Artificial dams)	Varine Waters (Bing 3ong, marine ediments)	Groundwater	Aquatic fauna (fish iver) Vegetation &	Reference & Rehabilitation (CEF)	Naste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023 Comments 2023
	water levels in the TSF;	4 %											MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022.
80.a	80.a		1					1		1	4	Full Compliance	MRM Tailings Storage and Facility Quarterly Report April 2022 - June 2022 displays compliance for water levels against MOL for Cell 1 and Cell 2 in Figure 2-1 and
80.b	all monitoring data associated with the seepage (including geotechnical and environmental monitoring); 80.b		1		1			1		1	4	Full Compliance	MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM Tailings Storage and Facility Quarterly Report April 2022 - June 2022 Table 2-1 provides data including sum of seepage collected Section 2.3.2 details information pertaining to seepage management for Cell 2 but does not provide specifics relating to Cell 1. No seepage was observed or pumped from the west corner during this reporting period. Section 2.5.3 details the historic seepage activities for Cell 2, and provides generalist results of filters metals testing. It also outlines that Cell 2 Spillway Recovery Seepage bore could not be located during the reporting period, and how it has therefore not been sampled since September 2022 Table 2-1 provides data including sum of seepage collected, which does not include Cell 1. Section 2.3.2 details information pertaining to seepage management for Cell 2 but does not provide specifics relating to Cell 1. No seepage to the could not be located during the reporting period, and how it has therefore not been sampled since September 2022 Table 2-1 provides data including sum of seepage collected, which does not include Cell 1. Section 2.3.2 details information pertaining to seepage was observed or pumped from the west corner during this reporting period. Seepage at the old Cell 2 spillway location was inspected and monitored on a daily basis, with a total of 216 m3 was pumped back in July, August and September.
80.c	flow rate of each seep;		1		1			1		1	4	Full Compliance	MRM TSF Quarterly Report - Q1 2022 December 2021 to March 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022 - Section 2.3.2 includes seepage flow rates.
80.d	all actions undertaken during the quarter associated with the seepage and management of Tailings; 80.d		1		1			1		1	4	Full Compliance	MRM TSF Quarterly Report - Q1 2022 December 2021 to March 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. Attachment B - TSF Recommendation Instruction and Action Register of the MRM TSF Quarterly Report - July 2022 - September 2022 includes actions that were due but were incomplete. OBS: Recommendations in the TSF Recommendation Instruction and Action Register of the MRM TSF Quarterly Report - July 2022 - September 2022 includes the actions undertaken in the quarter. OBS: Recommendations in the TSF Recommendation Instruction and Action Register of the MRM TSF Quarterly Report - July 2022 - September 2022 includes actions that were due but were incomplete.
80.e	all actions planned for the next quarter associated with seepage and management of Tailings. 80.e hnical and Hydrogeological Assessments and Investigation Drilling		1		1			1		1	4	Full Compliance	MRM TSF Quarterly Report - Q1 2022 December 2021 to March 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022 - Table 2-3 describes the ongoing operational actions by recommended frequency and the Attachment B - TSF Recommendation Instruction and Action Register also includes actions.

Authorisation Co	Compliance Workbook - Operator												
	18 June 2021 Authorisation Condition/Requirement Condition No.	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine sediments)	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
81	The Operator is authorised to undertake Drilling Investigations as outlined in relevant approved plans defined in Schedule B and approved MMP, ensuring adherence to industry best practice: 81			1						4	Full Compliance	EMR 2022-2023 dated 31Aug2023. EMR 2022-2023 Appendix A 2022-2023 Drilling Register 2021 Hydrogeological Drilling and Field Campaign version 1 dated 4Jul2022. 2022/2023 Hydrological Drilling and Field Campaign version 1 dated 26Jun2023. EMR 2022-2023 states in section 2.1 "All drilling during the reporting period was undertaken in accordance with the January 2020 MMP."	
81 .i	in order to collect samples for waste rock characterisation and geochemical and geotechnical analyses; 81.i			1			1		1	4	Full Compliance	EMR 2022-2023 Appendix A 2022-2023 Drilling Register dated Aug2023 EMR 2022-2023 states in section 2.1 "All drilling during the reporting period was undertaken in accordance with the January 2020 MMP." EMR 2022-2023 Appendix A 2022-2023 Drilling Register has 15 holes with purpose being resource or geotechnical.	
81.ii	to characterise available construction and rehabilitation materials available within the Mine Levee Wall (including the pit) and areas surrounding the TSF and NOEF; 81.ii					1			1	4	Full Compliance	EMR 2022-2023 Appendix A 2022-2023 Drilling Register dated Aug2023. EMR 2022-2023 states in section 2.1 "All drilling during the reporting period was undertaken in accordance with the January 2020 MMP." EMR 2022-2023 Appendix A 2022-2023 Drilling Register has 15 holes with purpose being resource or geotechnical.	
81.iii	to enable geochemical assessment of the overburden emplacement facility and underlying sediments; 81.iii			1			1		1	4	Full Compliance	EMR 2022-2023 Appendix A 2022-2023 Drilling Register dated Aug2023 EMR 2022-2023 states in section 2.1 "All drilling during the reporting period was undertaken in accordance with the January 2020 MMP." EMR 2022-2023 Appendix A 2022-2023 Drilling Register has 15 holes with purpose being resource or geotechnical.	
81.iv	to obtain hydrogeological information associated with pit inflows, groundwater inputs into the underground void and installation of additional monitoring bores to inform site management.			1					1	4	Full Compliance	2021 Hydrogeological Drilling and Field Campaign version 1 dated 4Jul2022. 2022/2023 Hydrological Drilling and Field Campaign version 1 dated 26Jun2023.	
82	The Operator must ensure the disturbances from the drilling and site investigation activities are rehabilitated consistent with industry best practice.					1				4	Full Compliance	Exploration Management Plan SPC-3100001 May 2021, Version 2 dated 2021. Correspondence between Internal Operator Staff relating to Teena Exploration Site - Environmental Inspection 19/11/22. Exploration Drill Set Inspection Report dated 19Nov2022. EMR 2022-2023 Appendix A 2022-2023 Drilling Register dated Aug2023. The EMR 2022-2023 Appendix A 2022-2023 Drilling Register shows that of the 15 holes, 11 were grouted, 1 capped, 2 had monitoring equipment installed and one remained open.	The Operator advised "No rehabilitation works have been completed during the saudit period, as no drilling sites have been closed. There are two open Teena Exploration Drilling sites (west of TSF): Site 1: Teena_21001 Site 2: Teena_21001A These were inspected in November 2022. In accordance with section 4.1 of the Exploration Management Plan remediation will begin when feasible. Drill holes of plugged to reduce the risk to groundwater impacts over the wet season and may re-drilled in 2023." Note that rehabilitation was undertaken before the audit period but not relinquished in terms of security.

Authorisation Co.	mnliance W	orkbook - Operator													
5 May 2022	18 June 20 Authorisat	121 ion Condition/Requirement	Air Quality (dust & sulphur dioxide, fransport)	stansport, Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater	river)	Vegetation Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
83	83	Characterisation data from the drilling must be kept and available to the Minister on request and reported in the Operator's EMR.									1	4	Full Compliance	2022/2023 Hydrological Drilling and Field Campaign version 1 dated 26Jun2023. Correspondence between Operator and DITT relating to 2022-2023 EMR Submission. The 2022-2023 MRM Submission Letter states that: "Drilling characterisation data is	No request was made in the audit period from the Minister for characterisation dai from the drilling. The Operator advised "Characterisation data for Geochemical and Geotechnical exploration drilling is commercially sensitive information not suitable for inclusion in the EMR. Condition 83 has been amended in VoA 0059 (V13) dated 17 May 2023 accordingly, allowing characterisation data to be submitted in an alternative forma as agreed with the Department."
84	84	All documentation relating to the investigations undertaken is to be made available to the Department on request.				1			1		1	N/A	Not Applicable		No request was made by the Department for documentation related to the investigations.
85	85	On completion of the investigation the disturbances are to be rehabilitated in accordance with the approved MMP and the basis for the proposed adjustment of total security adjustments required under Condition 11, are provided in the annual Unplanned Closure Plan report to the satisfaction of the Department.						1				N/A	Not Applicable	Submission.	Investigations are not complete or in areas of ongoing disturbance. The Operator does not intend to seek to relinquish security from these areas until rehabilitated. The full security remains in place.
Exploration	Exploration	The Operator must ensure that:													
86	86	The Operator must ensure that.											Refer to sub conditions		
86.a	86.a	works are undertaken in accordance with management systems detailed in the approved MMP;										4	Full Compliance	Exploration Drill Set Inspection Report dated 19Nov2022. Permit to Clear Procedure version 3 (PRO-220033) undated. Excavation and Trenching Procedure version 3 (PRO-2600038) dated 31May2021. Exploration Management Plan version 2 dated May2021. Correspondence between Internal Operator to Internal Operator subject: RE: Teena Exploration Sites - Environmental Inspection 19/11/22.	
86.b	86.b	an environmental management plan is in place that addresses:											Refer to sub conditions		
86.b.i	86.b.i	chemical use and storage (e.g. hydrocarbons, drilling fluids);							1			4	Full Compliance	Exploration Management Plan SPC-3100001 May 2021, Version 2. Exploration Drill Set Inspection Report dated 19Nov2022. Inspection record provided showed that chemical management had been part of the site inspection.	

Authorisation Co	mpliance Work	oook - Operator													
5 May 2022 Authorisation Condition No.		Condition/Requirement	Air Quality (dust & sulphur dioxide, rransport)	Surface Water (River, Creek, Artificial dams)	Warine Waters (Bing 3ong, marine sediments)	Groundwater	iver)	References Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
86.b.ii	86.b.ii	erosion and sediment control;		1								4	Full Compliance	Exploration Management Plan SPC-3100001 May 2021, Version 2. Exploration Drill Set Inspection Report dated 19Nov2022. Correspondence between Internal Operator Staff relating to Teena Exploration Sites - Environmental Inspection 19/11/22. Inspection record provided showed that erosion and sediment control were part of the site inspection and an internal email demonstrated that sediment controls were part of management.	*Vegetation clearing during, and immediately after rainfall events, will be avoided; * Vegetation clearing will be kept to a minimum required to safely traverse vehicles and drill rigs along tracks and drill pads; []
86.b.iii	86.b.iii	dust;	1									4	Full Compliance	Exploration Management Plan SPC-3100001 May 2021, Version 2. Exploration Drill Set Inspection Report dated 19Nov2022. Inspection record provided showed that assessment of dust was included in the site inspection.	Section 3.1.2 of the Exploration Management Plan says "Controls to minimise airborne dust".
86.b.iv	86.b.iv	associated risks common for exploration works;										4	Full Compliance	Exploration Management Plan SPC-3100001 May 2021, Version 2. Exploration Drill Set Inspection Report dated 19Nov2022. Inspection record provided showed that assessment of fauna exclusion/ramps, retaining vegetation, weed control and waste management are included in the site inspection.	There are controls for various other common risks included in the Exploration Management Plan. No mention of risks like cultural heritage or AAPA requirements in the environmental inspection, however these are covered by the permitting process.
86.c	86.c	rehabilitation is undertaken for locations not needed for further use;						1				N/A	Not Applicable		Investigations are not complete or in areas of ongoing disturbance. The Operator does not intend to seek to relinquish security from these areas until rehabilitated. The full security remains in place.
86.d	86.d	a rehabilitation report including details regarding the status of disturbance rehabilitated drill holes and the basis for the proposed adjustment of total security in accordance with Conditions 10, 11 and 12, to the satisfaction of the Department.						1				N/A	Not Applicable	Correspondence between Operator and DITT relating to MRM - 2022-2023 EMR Submission. The 2022-2023 EMR Submission Letter states that: "Rehabilitation of disturbance related to investigation drilling has been undertaken progressively, and no adjustment to security is currently required. Therefore MRM has not submitted a request to adjust the current security held by the Department."	Investigations are not complete or in areas of ongoing disturbance. The Operator does not intend to seek to relinquish security from these areas until rehabilitated. The full security remains in place.
Ion-mineral Waste M															
87		The Operator is authorised to complete works to prepare and construct a Centralised Waste Facility (CWF) for management of general, contaminated and putrescible wastes, in accordance with:											Refer to sub conditions		CWF has not been constructed and potentially may be constructed in 2024.
87.a	87.a	concept designs presented in the document entitled McArthur River Mine Mining Management Plan Amendment, January 2019, as defined in Schedule B, ensuring detailed designs:							1			N/A	Not Applicable		CWF has not been constructed and potentially may be constructed in 2024.
87.a.i	87.a.i	follow the approved concepts for the facility (including 100 year ARI flood immunity, CCL and protective armour, drainage works and biosecurity control);							1			N/A	Not Applicable		CWF has not been constructed and potentially may be constructed in 2024.
87.a.ii	87.a.ii	the structure design and construction is undertaken in accordance with independent oversight consistent with Conditions 48 and 50;							1			N/A	Not Applicable		CWF has not been constructed and potentially may be constructed in 2024.

Authorisation Co	mpliance Worl	kbook - Operator					⊗	a)					Evidence 2023	Comments 2023
		Condition/Requirement	Air Quality (dust & sulphur dioxide, rransport)	Surface Water (River, Creek, Artificial dams Marine Waters (Bing	song, marine sediments) Groundwater	Aquatic fauna (fish iver)	Vegetation & Rehabilitation (terrestrial, diversion NOEF)	Waste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level		
87.a.iii	87.a.iii	include allowances for the installation of an adequate number of monitoring bores at suitable locations to monitor the environmental performance of the structure with respect to contaminant seepage. These monitoring locations must be integrated and reported within the site-wide water monitoring requirements.	7 65 1		1			1			N/A	Not Applicable		CWF has not been constructed and potentially may be constructed in 2024.
88	88	The Operator must ensure the non-mineral waste facility, landfill or equivalent previously in use is rehabilitated following approval by the Department of a rehabilitation plan.						1			N/A	Not Applicable		Future item. Still in use.
habilitation Trials	Rehabilitation Tri	The Operator is authorised to undertake the following rehabilitation trials, in accordance with concepts defined in relevant documents in Schedule B and the approved MMP:										Refer to sub conditions		
89.a	89.a	Construction Test Pads (CTP) on NOEF West stage;					1	1			4	Full Compliance	January 2020 MMP. EMR 2022-2023 dated 31Aug2023. EMR 2022-2023 section 2.4.4.2 includes the key aims of the large-scale cover trials and states "Approximately 15 ha of BGM were installed during 2022 on the southern face of the NOEF West Stage, as shown in Plate 7. Two separate monitoring systems are currently being trialled under/over the BGM, including a wireless system and a fiber optic system. Due to issues with these monitoring systems, no available monitoring data is available for the reporting period, and no over-liner, growth medium, or topsoil could be placed during the reporting period. The over-liner, growth medium and topsoil layer placement is expected to commence during the 2023 dry season, after which monitoring data will also start to become available."	The Operator advised that the construction liner trials are ongoing and topsoil and revegetation are anticipated to proceed in 2023.
89.b	89.b	PAF(RE) Cell and Cover System Performance on NOEF Southeast stage;					1	1			4	Full Compliance	January 2020 MMP. EMR 2022-2023 dated 31Aug2023. EMR 2022-2023 discusses these trials in section 2.4.4.1 PAF (RE) Cell and Cover System Performance Trials.	The trial is ongoing. Independent Monitor advised by the Operator that all runoff from rehabilitation trial areas are contained in the water management system, as required by the January 2020 MMP. January 2020 MMP states "Construction of a PAF (RE) cell as per the OMP EIS design, on an impervious geosynthetic-lined base. The PAF (RE) cell will be constructed in 3 x 2 m lifts and will include fine-grained low-air-permeability barriers (advection barriers) and a wet season cover, replicating the OMP EIS desig The PAF (RE) lifts will be instrumented for temperature, moisture and gas analysis will be left to stand for at least one wet season (2019/20) to determine the effectiveness of both the wet season cover and the low-air-permeability barriers. PAF (RE) was selected for the cover system trial because it represents the most reactive material that will be encapsulated by the NOEF cover system."
89.c	89.c	Mine Levee revegetation.					1	1			N/A	Not Applicable		The Operator advised that this trial will not be proceeding. A trial has been identified as not required and the Operator intends to monitor the revegetation or the NOEF itself (i.e. rather than doing a trial on the levee to inform the NOEF).
90	90	The Operator must ensure all contaminated runoff is contained and managed within the water management circuit and as detailed in the Water Management Plan.		1							4	Full Compliance	Trials are all on the NOEF that drains to the water management system so all potentially contaminated runoff is contained.	The Operator advised that the NOEF rehab trial area runoff all drains to within the on site water management system.
g Bong Loading Fac	Bing Bong Loadin												Correspondence between Operator and DITT relation to 1004 2000 David	The Operator advised "No deads a catalities have a control of the
91	91	Dredging activities at the Bing Bong Port Facility are authorised, subject to:										Refer to sub conditions	Correspondence between Operator and DITT relating to VOA 0059 - Dredging and Dredge Spoil Management Plan. The Operator outlines that no dredging activities have occurred at Bing Bong Loading Facility during the audit period.	The Operator advised "No dredging activities have occurred at Bing Bong Loading Facility during the audit period." In February 2023 the Operator submitted a Dredging and Dredge Spoil Manageme Plan to DITT, a copy of the correspondence and submission is provided. This is for short term requirements.

uthorisation Co	mphance Work	kbook - Operator											Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Condition/Requirement	'air Quality (dust & sulphur dioxide, rransport)	Surface Water (River, Greek, Artificial dams) Marine Waters (Bing	Song, marine sediments)	Aquatic fauna (fish iver)	/egetation & Rehabilitation terrestrial, diversion & NOEF)	Naste (general, mine ock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
		submission to the department of a Dredging and Dredge Spoil	, s		<u> </u>				<u> </u>				Correspondence between Operator and DITT relating to VOA 0059 - Dredging and	The Operator advised "No dredging activities have occurred at Bing Bong Loading activities activitie
		Management Plan;											Dredge Spoil Management Plan.	Facility during the audit period."
91.a	91.a				1						N/A	Not Applicable		In February 2023 the Operator submitted a Dredging and Dredge Spoil Manage Plan to DITT, a copy of the correspondence and submission is provided. This is short term requirements.
91.b	91.b	approval of the Plan by the Department prior to commencement of dredging.			1						N/A	Not Applicable		The Operator advised "No dredging activities have occurred at Bing Bong Loadi Facility during the audit period." The submitted Dredging and Dredge Spoil Management Plan had not been approved audit period.
ronmental Monit	Environmental Mo	onitoring and Management												
92	92	Environmental monitoring for the McArthur River Mine site (including BBLF) must be undertaken in accordance with requirements in Schedule D and reported as part of Condition 9.								1	4	Full Compliance	EMR 2021-2022 dated 31Aug2022. EMR 2022-2023 dated 31Aug2023. Environmental monitoring is discussed in the EMR 2021-2022 and EMR 2022-2023 and includes BBLF.	Additional evidence is provided under the individual conditions from Schedule I
ptive Managemer	Adaptive Manage													
93	93	Within 12 months of the date of authorisation of the Overburden Management Project, the Operator must submit a revised AMP as required under Conditions 45.								1	4	Full Compliance	Correspondence between DITT and Operator relating to MRM Amended Adaptive Management Plan (November 2021) confirmed approval. August 2022. DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	The Operator submitted two iterations of the AMP as stated below, which comwith the 12-month timeframe under Condition 93: • Amended AMP (version: 31 March 2021, AMP-C) and supporting information submitted 23 June 2021 • Amended AMP (version: 1 October 2021, AMP-D) and supporting information submitted 13 November 2021.
94	94	The revised AMP must:										Refer to sub conditions		
94.a	94.a	address the comments from the Independent Monitor or independent third party review of the draft AMP and ensuring compliance with Condition 45;									4	Full Compliance	TARP Overview; Table 7 Environmental Objectives and Associated Environmental Smart Performance Criteria Triggers and Section 5.3.1 Level 3 Investigation Report and Assessment Against Environmental Objective.	
94.b	94.b	be consistent with the AMP required under the Waste Management and Pollution Control Act 1998 and Environment Protection and Biodiversity Conservation Act 1999;									4	Full Compliance	Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021) confirmed approval. DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. The AMP is the same document that is submitted to DEPWS under the WDL although some appendices (e.g., Rehabilitation Plan) are not relevant to the WDL and therefore not submitted to DEPWS. The AMP is therefore consistent (although appendices submitted are not identical) and compliant with the requirements of this condition. Revisions of the AMPs have been submitted to DEPWS (NT) and DCCEEW (Commonwealth) in accordance with legislative requirements.	
94.c	94.c	be reviewed by a Department approved independent third-party at the discretion of the Minister;	t								N/A	Not Applicable	No DITT requests for independent third-party AMP review. However, an independent review of AMP-Revision C was conducted in response to requirement under the Waste Discharge Licence (WDL) and finalised in March 2021 A copy of the independent review by the University of Queensland, Sustainable Minerals Institute was provided to DITT.	

uthorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	l ity (dust & dioxide,	Water (River, Artificial dams)	Waters (Bing narine	water	: fauna (fish	tion & itation rial, diversion &	general, mine ilings)	ınity (local ous & public)	ring & ng	Score	Compliance Level	Evidence 2023	Comments 2023
			r Qua Ilphur anspo	ı rface eek, ⁄	l arine ong, m	round	quatic /er)	e geta l ehabil errest OEF)	'aste (ck, ta	ommu digen	onito sporti				
		be approved by the Minister;	Su Str	3 5	_ <u>⋝</u> 8	G G	Ā É	> % = ž	≥ 5	Ŭ .⊆	_ ≥ ∞			Correspondence between DITT and Operator relating to Amended Adaptive	
94.d	94.d											4	Full Compliance	Management Plan (November 2021) confirmed approval. DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	
94.e	94.e	once approved, be implemented in full.										4	Full Compliance	Correspondence between Operator and DITT relating to (MRM DITT Data Q3) (before audit period). Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021). EMR 2022-2023 dated 31Aug2023. Annual EMR (2021-2022) reports AMP implementation including: •AMP TARP trigger level exceedances, investigation and management measures •Expert specialist review of the Environmental Monitoring program performance against AMP key environmental objectives •Additional monitoring and/or management measures recommended for Monitoring Programs. EMR 2022-2023 states "For the current reporting period, 111 mid-stage plots and 18 early-stage plots were surveyed. The field survey, data collection and assessmer were undertaken as per MRM's 2021-2023 RMP and AMP TARP." and "The overarching objectives are supplemented by performance indicators and associate environmental triggers detailed in the AMP and sub-management plans. Monitorin data collected under the AMP during the reporting period is analysed by expert specialists to determine the Mine's environmental performance against the aforementioned environmental objectives. Over the reporting period, monitoring, management and reporting at the Mine was conducted in accordance with the AMP."	3
95		Any material changes to the AMP required by Condition 94 must be re-approved by the Minister.										4	Full Compliance	Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021) - approval.	
ne Closure	Mine Closure														
96		From the date of authorisation of the Overburden Management Project, the Operator must submit an updated Mine Closure Plan with each MMP that builds upon the closure concepts defined in the Overburden Management Project.						1				N/A	Not Applicable	Correspondence between Operator and DITT relating 2022-2023 EMR Submission dated 31Aug2023. The 2022-2023 EMR Submission Letter states that: "Latest Unplanned Closure Plan submitted to accompany the MMP amendment approved via correspondence from the Department dated 17May2023." (after the audit period).	Revised MMP with minor changes was submitted May 2023 (outside the audi period).
97	97	The Mine Closure Plan required under Condition 96 must:											Refer to sub conditions		Future item. No MMPs in the audit period so the trigger for the Mine Closure has not occurred.
97.a	97.a	detail how key mine domains will be rehabilitated to achieve the Overburden Management Project closure objectives;						1				N/A	Not Applicable		Future item. No MMPs in the audit period so the trigger for the Mine Closure has not occurred.
97.b	97.b	address outcomes of the reviews by independent technical and closure panels in accordance with Condition 21 with respect to mine closure;						1				N/A	Not Applicable		Future item. No MMPs in the audit period so the trigger for the Mine Closure has not occurred.
97.c	97.c	incorporate relevant outcomes from rehabilitation trials defined in Condition 89.						1				N/A	Not Applicable		Future item. No MMPs in the audit period so the trigger for the Mine Closure has not occurred.
98	00	Five years prior to the planned closure of the mine, the Operator must:											Refer to sub conditions		Future item. Mine closure more than 5 years away.
98.a	98.a	finalise the Mine Closure Plan required under Condition 96;						1				N/A	Not Applicable		Future item. Mine closure more than 5 years away.
98.b	98.b	submit to the Department the plan for approval by the Minister;						1				N/A	Not Applicable		Future item. Mine closure more than 5 years away.
98.c	98.c	following approval, the Mine Closure Plan must be implemented by the Operator in full.						1				N/A	Not Applicable		Future item. Mine closure more than 5 years away.

Authorisation Co	ompliance Work	book - Operator												
	18 June 2021		ust & e,	r (River, II dams) s (Bing		(fish	version &	al, mine	ocal public)				Evidence 2023	Comments 2023
Authorisation		Condition/Requirement	Air Quality (du sulphur dioxid transport)	Surface Water Creek, Artificia Marine Water	Bong, marine sediments)	Groundwater Aquatic fauna	Vegetation & Vegetation & (Perestrial) (terrestrial) div	Waste (genera rock, tailings)	Community (I	Monitoring & Reporting	Score	Compliance Level		
99	99	From the date of authorisation of the Overburden Management Project, the Operator must annually submit to the Department an Unplanned Mine Closure Plan on or before 31 August, starting 2021, to the Department, which is accompanied by a related security estimate.					1				4	Full Compliance	2023 UCP Submission. MRM Security Calculation 2023 Final 30Sep2022. MRM Security Calculation 2023 Supporting GIS. MRM Security Calculation 2023 Final 2022 Comparison 30Sep2022. Correspondence between Operator and DITT relating to DITT Updated UCP and Independent Security Assessment. Correspondence between Operator and DITT relating to 2023 Unplanned Closure Plan and Security Assessment. Correspondence between Operator and DITT relating to 2022 Unplanned Closure Plan.	Evidence of submission of the 2023 Unplanned Closure Plan on 30 September 2022 to the Department is provided. An extension of the due date was granted by the Department, email correspondence provided as evidence.
Independent Monito	r Independent Mon	itoring Assessment Conditions												
100	100	The Operator must comply with the clauses pertaining to it in SCHEDULE C - INDEPENDENT MONITORING ASSESSMENT CONDITIONS.								1	N/A	Not Applicable		Assessed through individual conditions in Schedule C.
SCHEDULE C - Indepe	r SCHEDULE C - Inde	pendent Monitoring Assessment Conditions												
Schedule C - 1	Schedule C - 1	The purpose of the McArthur River Mine – Independent Monitoring Assessment Conditions" is to establish and set out the operational requirements for an independent monitoring assessment of the environmental performance of the Mine.										-		Commentary only.
Schedule C -2	Schedule C -2	These Conditions may be cited as the "McArthur River Mine – Independent Monitoring Assessment Conditions".										-		Commentary only.
Schedule C -3	Schedule C -3	The purpose of these Conditions is to establish and set out the operational requirements for an independent monitoring assessment of the environmental performance of the Mine.										-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -4	Schedule C -4	The Department will engage an Independent Monitor to undertake the independent monitoring assessment.										-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -5	Schedule C -5	The Operator and the Department acknowledge that this independent monitoring assessment is in addition to their respective obligations and statutory responsibilities in relation to the Mine.								1	4	Full Compliance		The Operator has participated in the Independent Monitor assessment in addition to their respective obligations and statutory responsibilities.
Schedule C -6	Schedule C -6	The Independent Monitor will:										-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -6.a	Schedule C -6.a											-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -6.a.i	Schedule C -6.a.i	undertaken by the operator, and										-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -6.a.ii	Schedule C -6.a.ii	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -6.b	Schedule C -6.b	report to the Operator and the Department any urgent issues requiring investigation and reporting.										-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -7	Schedule C -7	The Independent Monitor will not review:										-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -7.a Schedule C -7.b	Schedule C -7.a Schedule C -7.b	social issues arising from the operation of the Mine in the McArthur River Region.										-		These Independent Monitor conditions are not relevant to the Operator. These Independent Monitor conditions are not relevant to the Operator.
Schedule C -8	Schedule C -8	The Department will engage an Independent Monitor in accordance with its procurement processes.										-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -9	Schedule C -9	The Independent Monitor may be (in order of preference): a. an environmental or mining agency in another jurisdiction in a Australia; or b. university having the necessary expertise; or c. an environmental consultant have the necessary expertise, relevant experience and the necessary resources.										-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -10	Schedule C -10	Prior to advertising a tender seeking to engage an Independent Monitor, the Department must provide the Operator with a copy of the proposed tender documentation, including:										-		These Independent Monitor conditions are not relevant to the Operator.
		the Conditions of tendering; and										-		These Independent Monitor conditions are not relevant to the Operator.
		the scope of services; and the assessment criteria; and										-		These Independent Monitor conditions are not relevant to the Operator. These Independent Monitor conditions are not relevant to the Operator.
		the Conditions of contract.										-		These Independent Monitor conditions are not relevant to the Operator.

Authorisation Cor	mpliance Work	pook - Operator													
		Condition/Requirement	Air Quality (dust & sulphur dioxide,	transport) Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023 Comments 2023	
Schedule C -11		The Operator may, within 14 days of receiving the proposed tender documentation, provide comment on the proposed documentation to the Department and the Department must consider any comments provided by the Operator on the proposed documentation prior to advertising the tender.									1	4	Full Compliance	The extension of the Independen Operator. The Operator did not ra	t Monitor contract was provided by DITT to the sise any comments.
Schedule C -12		The Department must provide the Community with an opportunity to provide submissions on the engagement of the Independent Monitor and the Department must consider any submissions provided by the Community on the engagement of the Independent Monitor prior to advertising the tender.											-	These Independent Monitor cond	itions are not relevant to the Operator.
Schedule C -13		The terms of engagement of the Independent Monitor may include the following:											-	These Independent Monitor cond	itions are not relevant to the Operator.
Schedule C -13.a Schedule C -13.b	Schedule C -13.a Schedule C -13.b	a period of engagement between three and five years; a statement acknowledging that the Operator is responsible for the costs of the Independent Monitor;											-	These Independent Monitor cond	itions are not relevant to the Operator. itions are not relevant to the Operator.
Schedule C -13.c Schedule C -13.c.i	Schedule C -13.c.i	a warranty by the Independent Monitor that it will: act independently of the Department, the Operator, the											-		litions are not relevant to the Operator. litions are not relevant to the Operator.
Schedule C -13.c.ii		Minister and any other person; and act honestly, reasonably and with the degree of professional care, knowledge, experience, skill and diligence which may reasonably be expected; and											-	These Independent Monitor cond	itions are not relevant to the Operator.
Schedule C -13.c.iii	Schedule C -13.c.iii	act within the time prescribed under these Conditions, the terms of engagement, or where no time is prescribed, within a reasonable time; and											-	These Independent Monitor cond	litions are not relevant to the Operator.
Schedule C -13.c.iv	Schedule C -13.c.iv	immediately notify the Department in writing upon becoming aware of the existence or possibility of a conflict of interest;											-	These Independent Monitor cond	itions are not relevant to the Operator.
Schedule C -13.d	Schedule C -13.d	an obligation on the Independent Monitor to keep all information provided to the Independent Monitor confidential.											-	These Independent Monitor cond	itions are not relevant to the Operator.
Schedule C -14	Schedule C -14	If the Independent Monitor requires an indemnity, the Operator must enter into a binding agreement providing a reciprocal indemnity to the Department.									1	N/A	Not Applicable	The Independent Monitor did not	require an indemnity.
Schedule C -15	Schedule C -15	The Department must notify the Operator of the appointment of the Independent Monitor and must provide the Operator with a copy of the terms of engagement.											-	These Independent Monitor cond	itions are not relevant to the Operator.
Schedule C -16	Schedule C -16	The Operator and the Department must not interfere or attempt to influence the Independent Monitor in its assessment of environmental performance under these Conditions.									1	4	Full Compliance	The Operator has not interfered of Monitor.	or attempted to influence the Independent
Schedule C -17	Schedule C -17	The Operator and the Department must each:											Refer to sub conditions	Provided for context of the subco	nditions.
Schedule C -17.a	Schedule C -17.a	cooperate with the Independent Monitor; and									1	4	Full Compliance	The Independent Monitor confirm Independent Monitor.	ns that the Operator cooperated with the
Schedule C -17.b	Schedule C -17.b	provide all necessary information and documents within their possession, custody or control to the Independent Monitor; and									1	4	Full Compliance	The Independent Monitor confirm	ns that the Operator provided all necessary in their possession, custody or control.
Schedule C -17.c	Schedule C -17.c	procure for the Independent Monitor access to such premises owned, leased, or licensed by it as may be reasonably necessary,									1	4	Full Compliance	An Independent Monitor site visit	was undertaken in June 2022 and March 2023.
Schedule C -17.d	Schedule C -17.d	to enable the Independent Monitor to undertake its assessment of environmental performance under these Conditions.									1	4	Full Compliance	The Independent Monitor confirm Monitor to undertake their asses:	ns that the Operator enabled the Independent
Schedule C -18	Schedule C -18	The Independent Monitor must engage with the Operator, the Department and the Community in undertaking the independent monitoring assessment.											-		ement for the Operator. This is an Independent
Schedule C -19		If the Independent Monitor identifies an issue it considers requires urgent investigation and reporting:									1		Refer to sub conditions	The Independent Monitor did not investigation and reporting durin	identify any issue it considered required urgent g the audit period.
Schedule C -19.a	Schedule C -19.a	the Independent Monitor must advise the Operator and the Department of the issue as soon as practicable and may include recommendations as to action to be taken; and											-	Not included as there is no requir	ement for the Operator.

Authorisation Co	mpliance Workl	oook - Operator											
5 May 2022 Authorisation Condition No.		Condition/Requirement	Air Quality (dust & sulphur dioxide, transport) Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater Aquatic fauna (fish	river) Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule C -19.b	Schedule C -19.b	the Operator must consider the advice, and any recommendations, from the Independent Monitor and notify the Department and the Independent Monitor of the action the Operator proposes to take; and							1	N/A	Not Applicable		The Independent Monitor did not identify any issue it considered required urgent investigation and reporting during the audit period.
Schedule C -19.c	Schedule C -19.c	the Department may, where appropriate, advise the Operator and the Independent Monitor of action the Department proposes to take; and									-		Not included as there is no requirement for the Operator.
Schedule C -19.d	Schedule C -19.d	the Independent Monitor may provide further advice to the Operator, and where appropriate the Department, regarding the proposed action and the Operator and the Department must consider the further advice; and							1	N/A	Not Applicable		The Independent Monitor did not identify any issue it considered required urgent investigation and reporting during the audit period.
Schedule C -19.e	Schedule C -19.e	if, after providing further advice, the Independent Monitor is not satisfied with the proposed action, the Independent Monitor may notify the Operator and the Department of the Independent Monitor's intention to undertake its own investigation and report; and									-		Not included as there is no requirement for the Operator.
Schedule C -19.f	Schedule C -19.f	the Operator and the Department must facilitate the Independent Monitor's investigation and report.							1	N/A	Not Applicable		The Independent Monitor did not identify any issue it considered required urgent investigation and reporting during the audit period.
Schedule C -20		The independent monitoring assessment is to be conducted, where practical, in a manner that complements the existing annual environmental assessment and audit processes undertaken by the Operator and the Department.									-		Not included as there is no requirement for the Operator. This is an Independent Monitor requirement only.
Schedule C -21	Schedule C -21	The Independent Monitor must prepare and provide a report:									-		Not included as there is no requirement for the Operator. This is an Independent Monitor requirement only.
Schedule C -21.a	Schedule C -21.a	annually to the Minister to assist with the review of the Mining Management Plan; and									-		Not included as there is no requirement for the Operator.
Schedule C -21.b Schedule C -22	Schedule C -21.b	on request by the Minister. The Minister must provide a report received from the Independent Monitor to the Operator and the Department within 14 days of receiving the report.									-		Not included as there is no requirement for the Operator. Not included as there is no requirement for the Operator.
Schedule C -23	Schedule C -23	The Independent Monitor must prepare an additional report in a form suitable for distribution to the Community.									-		Not included as there is no requirement for the Operator.
Schedule C -24	Schedule C -24	The Operator and the Department acknowledge that the report from the Independent Monitor will be made publicly available (including publication on an appropriate internet site) and may include data used in the preparation of the report.						1	1	4	Full Compliance	Independent Monitor Report (AEPAR) made publicly available by posting on DITT website (viewed by Independent Monitor on 3May2023). https://industry.nt.gov.au/publications/mining-and-energy/public-environmental-reports/mining/mcarthur-river-independent-monitor. Correspondence between DITT and Operator relating to Annual Environmental Performance Audit Report 2022 Period 1 May 2021 to 30 April 2022.	
Schedule C -25	Schedule C -25	Prior to being made publicly available, the Minister must request from the Operator and the Department any comments on the Independent Monitor's report. Such comments must be provided within 28 days of the Minister's request and must be made publicly available with the Independent Monitor's report.							1	4	Full Compliance	Correspondence between DITT and Minister. Correspondence between Operator and Minister subject MRM Response to 2021-2022 Independent Monitor Report - letter to Minister Manison. Minister's request letter was sent on 27Nov2022, therefore comments from both DITT and Operator were submitted within 28 days.	Request from the Minister and response from Operator and DITT were within 28 days from the request.
Schedule C -26	Schedule C -26	The Operator acknowledges that it is responsible for all costs of the independent monitoring assessment other than those costs directly attributable to those elements of the independent monitoring assessment associated with Condition 21(b)) which are the responsibility of the Department.							1	4	Full Compliance		The Operator has paid the DITT invoices.
Schedule C -27	Schedule C -27	The Department may provide to the Operator, from time to time, a notice setting out amounts due and payable under the terms of the engagement of the Independent Monitor.									-		Not included as there is no requirement for the Operator.
Schedule C -28		The Operator must pay an amount notified in accordance with Condition 27 within seven (7) days of receiving such notice.							1	4	Full Compliance	The operator made payment against DITT invoices consistent with NTG procurement timeframes.	DITT advised there have been no issues with payment. OBS: DITT invoices require payment in a month rather than within seven days of receipt as stated in this condition, this longer timeframe appears acceptable and should be amended.
Schedule C -29		If the Operator disputes a notice provided by the Department under Condition 27:									Refer to sub conditions		Provided for context of the subconditions.

Authorisation Co	mnliance Work	nook - Operator												
-Additionsation Co	mphanice work						- ∞						Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Condition/Requirement	vir Quality (dust & ulphur dioxide,	urface Water (River, reek, Artificial dams)	Marine Waters (Bing Song, marine ediments)	sroundwater Aquatic fauna (fish	iver) egetation & tehabilitation terrestrial, diversion	Vaste (general, mine ock, tailings)	community (local ndigenous & public)	Aonitoring & teporting	Score	Compliance Level		
Schedule C -29.a	Schedule C -29.a	the Operator must pay the amount specified in the notice in accordance with Condition 28; and	7 S +						.=	1	N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -29.b	Schedule C -29.b	the Operator must notify the Department in writing within 14 days of receiving the notice, setting out the reasons why the Operator disputes the notice; and								1	N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -29.c	Schedule C -29.c	the Chief Executive of the Operator and the Chief Executive of the Department must meet within five (5) working days to resolve the dispute.								1	N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -30	Schedule C -30	If there is a dispute (other than a dispute mentioned in Condition 29) between the Operator and the Department as to any matter or thing arising out of these Conditions (the "Dispute"), the party claiming that a Dispute has arisen must notify the other party to the Dispute and the Chief Executive of the Operator, the Chief Executive of the Department and the Independent Monitor must meet within five (5) working days to resolve the Dispute.								1	N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -31	Schedule C -31	If the Chief Executive of the Operator, the Chief Executive of the Department and the Independent Monitor are unable to resolve a Dispute within ten (10) working days of meeting in accordance with Condition 30, the Operator and the Department may agree to the appointment of an independent party to assist in the resolution of the Dispute.								1	N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -32	Schedule C -32	If, within five (5) working days of either the Operator or the Department nominating a person to be the independent party, no agreement is reached as to who is to be appointed as the independent party, either the Operator, the Department or both may refer the matter to the President of the Law Society of the Northern Territory.								1	N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -33	Schedule C -33	The President of the Law Society Northern Territory may nominate a person to be the independent party and the parties to the Dispute are bound to accept the appointment of that person.								1	N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -34	Schedule C -34	The role of the independent party is to assist in negotiating a resolution of the Dispute and the independent party cannot make a decision that is binding on either the Operator or the Department.								1	N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -35	Schedule C -35	The Operator and the Department must make available to the independent party all materials requested by it and must provide the independent party with all other materials relevant to the Dispute.								1	N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -36	Schedule C -36	The Operator and the Department must:										Refer to sub conditions		Provided for context of the subconditions.
Schedule C - 36.a	Schedule C - 36.a	Bear their own costs of resolving the Dispute under this Condition; and								1	N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C - 36.b		Bear equally the costs of any independent party engaged. RONMENTAL MONITORING AND MANAGEMENT								1	N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule D - 1		If the Operator establishes a new surface water monitoring location, a written notice of the location (in GDA 94 format) and nature of the monitoring must be given to the Department within 30 days of its establishment.		1						1	N/A	Not Applicable	EMR 2022-2023 dated 31Aug2023. No evidence of any new surface water monitoring locations was observed by the Independent Monitor in the EMR 2022-2023.	The Operator advised that no new surface water monitoring locations were requested.
Schedule D - 2	Schedule D - 2	The Operator must maintain continuous monitoring having regard to:		1							4	Full Compliance	Surface Water Loggers Mastersheet. Memo WRM to Operator subject: Continuous surface water data quality assurance/quality control dated 27Jul23. Loggers were in place for the monitoring period. Success rates varied with only 57% data capture for SW09 and 19% data capture for SW31.	
Schedule D - 2.a	Schedule D - 2.a	devices installed at the following locations:										Refer to sub conditions		

Authorisation Co	mpliance Work	pook - Operator											
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport) Surface Water (River, Creek, Artificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater Aquatic fauna (fish	river) Vegetation & Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule D - 2.a.i	Schedule D - 2.a.i	SW29 (upstream Surprise Creek outside the zone of influence of TSF);	1						1	4	Full Compliance	SW Loggers Master. A logger was installed at SW29 to measure EC.	
Schedule D - 2.a.ii	Schedule D - 2.a.ii	SCGS (Surprise Creek gauge station between the TSF and the Mine);	1						1	4	Full Compliance	SW Loggers Master. Memo WRM to Operator subject: Continuous surface water data quality assurance/quality control dated 27Jul23 A logger was installed at SCGS (SW02) to measure EC.	SW02 (SCGS)
Schedule D - 2.a.iii	Schedule D - 2.a.iii	SW30 (upstream Emu Creek);	1						1	4	Full Compliance	SW Loggers Master. A logger was installed at SW30 to measure EC.	
Schedule D - 2.a.iv	Schedule D - 2.a.iv	USGS (upstream at the McArthur River gauge station);	1						1	4	Full Compliance	SW Loggers Master. A logger was installed at USGS (SW10) to measure EC.	
Schedule D - 2.a.v	Schedule D - 2.a.v	BCGS (upstream at the Barney Creek gauge station);	1						1	4	Full Compliance	SW Loggers Master. A logger was installed at BCGS (SW04) to measure EC.	SW04 (BCGS)
Schedule D - 2.a.vi	Schedule D - 2.a.vi	SW12 (immediately downstream of the Mine capturing outflow from Emu Creek, Barney Creek, drainage lines from SEPROD, Old McArthur River Channel and the McArthur River diversion channel but before the Glyde River joins the McArthur River channel);	1						1	4	Full Compliance	SW Loggers Master. A logger was installed at SW12 to measure EC.	
Schedule D - 2.b	Schedule D - 2.b	devices must at a minimum measure electrical conductivity, and may measure additional parameters such as pH;	1						1	4	Full Compliance	SW Loggers Master. Devices that measure EC were installed at the required locations.	
Schedule D - 2.c	Schedule D - 2.c	the Operator must from 30 August 2017 include data from these devices in data submission under Condition 7 of Schedule A.	1						1	4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator relating to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to DITT Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Continuous monitoring was included in the annual data submitted in the audit period.	
Schedule D - 3		From the date of authorisation of the Overburden Management Project the Operator must install and manage the following gauging stations at:									Refer to sub conditions		
Schedule D - 3.a	Schedule D - 3.a	Emu Creek;	1						1	3	Part Compliance (High)	Correspondence between AAPA and Operator relating to ISSUE OF AUTHORITY CERTIFICATE FOR GAUGING STATIONS - 202104614 (after the audit period). Surface Water Loggers Mastersheet. Photo: SW31. Photo: SW31b. Memo WRM to Operator subject: Continuous surface water data quality assurance/quality control dated 27Jul23. Gauging station is not yet constructed. Given the AAPA was received in August 2022 further progress would be expected on this given it has been a previous compliance issue. Loggers data capture was 19% and therefore not sufficient to be considered a replacement for a gauging station. No logger data was available for the wet season from 5Dec2022 onwards.	The Operator advised that the permanent gauging stations are yet to be constructed at Emu Creek and Glyde River, however the internal expenditure requests have been approved and are planning to install these stations over the current dry season. The Operator was in the process of ordering the equipment for the new gauging stations in February 2023. Two loggers have been deployed at each of the locations during the audit period. OFI: Construct the permanent gauging stations on Emu Creek and the Glyde River now that approvals have been received.

Authorisation Co	mpliance Workbook - Operator												
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine	Groundwater	Aquatic fauna (fish river) Vegetation &	Rehabilitation (terrestrial, diversion & NOEF)	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule D - 3.b	Glyde River. Schedule D - 3.b		1						1	3	Part Compliance (High)	Correspondence between AAPA and Operator relating to ISSUE OF AUTHORITY CERTIFICATE FOR GAUGING STATIONS - 202104614 (after the audit period). Surface Water Loggers Mastersheet. Photo: SW09. Memo WRM to Operator subject: Continuous surface water data quality assurance/quality control dated 27Jul23. Gauging station is not yet constructed. Given the AAPA was received in August 2022 further progress would be expected on this given it has been a previous compliance issue. Loggers data capture was 57% and therefore not sufficient to be considered a replacement for a gauging station. Wet season data was not provided prior to 20 November 2022 and after 3 March 2023.	The Operator advised that the permanent gauging stations are yet to be constructed at Emu Creek and Glyde River, however the internal expenditure requests have been approved and are planning to install these stations over the current dry season. The Operator was in the process of ordering the equipment for the new gauging stations in February 2023. Two loggers have been deployed at each of the locations during the audit period. Note that the loggers installed in the Glyde River were destroyed during a bushfire in 2022. New loggers were deployed in November, however there is a gap in the data at this location as a result. OFI: Refer to condition Schedule D - 3.a.
Schedule D - 4	The Operator must ensure groundwater monitoring bores and extraction bores are constructed, maintained and decommissioned in compliance with the document entitled Minimum construction requirements for water bores in Australia published by the National Uniform Drillers Licensing Committee (third edition, February 2012 or a current version of the document). In this regard:			1					1	4	Full Compliance	EMR 2022-2023 dated 31Aug2023. 2022-2023 Hydrogeological Drilling and Field Campaign dated 26Jun2023 (after audit period but relevant to the audit period). 2022/2023 Hydrogeological Drilling and Field Campaign dated 26Jun2023 stated "All groundwater bores were constructed in accordance with the Minimum Construction Requirements for Water Bores in Australia (NUDLC, 2020)."	No mention of the groundwater monitoring bores and extraction bores being maintained or decommissioned in accordance with the Minimum construction requirements for water bores in Australia published by the National Uniform Drillers Licensing Committee. OBS: Evidence that groundwater monitoring bores and extraction bores are maintained and decommissioned in accordance with the minimum construction requirements for water bores in Australia, published by the National Uniform Drillers Licensing Committee, should be provided to confirm compliance with this condition.
Schedule D - 4.a	construction logs and bore location coordinates in GDA 94 format must be available to the Minister on request and provided to the Minister annually in the EMR; Schedule D - 4.a			1					1	4	Full Compliance	EMR 2021-2022 dated 31Aug2022. EMR 2022-2023 dated 31Aug2023. 2021 HYDROGEOLOGICAL DRILLING AND FIELD CAMPAIGN. 2022-2023 Hydrogeological Drilling and Field Campaign dated 26Jun2023 (after audit period but relevant to the audit period). For the five bores drilled in the 2021-2022 audit period, bore coordinates are in Table 3-1 of the 2021 HYDROGEOLOGICAL DRILLING AND FIELD CAMPAIGN, which is part of the EMR submitted in the audit period. Borelogs are included in the 2021-2022 EMR that was submitted in the audit period. Table 3-1 within the 2022-2023 Hydrogeological Drilling and Field Campaign includes the newly constructed bore coordinates. The borelogs are also included.	The Operator advised that there were no requests by the Minister in the audit period.
Schedule D - 4.b	logs of maintenance activities must be kept available to the Minister on request; Schedule D - 4.b			1					1	N/A	Not Applicable	EMR 2021-2022 dated 31Aug2022. EMR 2022-2023 dated 31Aug2023. 2022-2023 Hydrogeological Drilling and Field Campaign dated 26Jun2023 (after audit period but relevant to the audit period). The Hydrogeological Drilling and Field Campaign Report does not contain evidence that maintenance was completed on bores GW SS2-1, GW180113, GW180165 and GW19051. 2022-2023 EMR does not mention maintenance activities relating to groundwater bores.	

Authorisation Co	ompliance Workbook - Operator											
Authorisation		Air Quality (dust & sulphur dioxide, transport) Surface Water (River, Arrificial dams)	Marine Waters (Bing Bong, marine sediments)	Groundwater Aquatic fauna (fish	Vegetation & Rehabilitation (terrestrial, diversion &	Waste (general, mine rock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule D - 4.c	logs of bore decommissioning activities must be kept and available to the Minister on request and reported in the Operator's Annual EMR. Schedule D - 4.c			1				1	4	Full Compliance	EMR 2021-2022 dated 31Aug2022. EMR 2021-2023 dated 31Aug2023. 2022-2023 Hydrogeological Drilling and Field Campaign dated 26Jun2023 (after audit period but relevant to the audit period) Section 3 of the 2022-2023 Hydrological Drilling and Field Campaign states "Within the 2022-2023 reporting period there was a total of eight monitoring groundwater bores and two Vibrating Wire Piezometers (VWPs) decommissioned due to ongoing pit expansion and NOEF expansion." and lists that only 2 out of 10 of the groundwater bores decommissioned in 2022/2023 have decommissioning logs (no decommissioning logs for bores that were decommissioned for pit expansion (i.e., mined through), only NOEF expansion, which is acceptable). Section 4.3.2 of the 2021-2022 EMR submitted in the audit period states that: "No monitoring bores were decommissioned across the Mine during the reporting period."	
Schedule D - 5	The Operator must take appropriate action to reduce the risk to mining operations associated with livestock on the adjoining pastoral property by maintaining an Exclusion Area and managing livestock as appropriate in consultation with the Chief Veterinary Officer. Schedule D - 5						1		4		2018-2019 cattle management plan was submitted in the January 2020 MMP, which was not approved until 13Nov2020. MRM Aerial muster-inspections register. MRM Cattle management fence line inspections register. EMR 2022-2023 dated 31Aug2023. Cattle Muster/Aerial Inspection Register shows four musters undertaken from 16Jun2022 to 7Sep2022 where animals were sighted and where required, destroyed. Cattle Management Fence Line Inspections Register shows eight inspections (including repair where relevant) in the audit period. The 2022-2023 EMR states "MRM undertook eight cattle musters during the reporting period, in addition to weekly inspections and maintenance of the cattle exclusion fencing." and "In total, eight cattle musters were undertaken during the reporting period. As per the Cattle Management Plan, weekly inspections of the cattle exclusion zone fence were also undertaken throughout the dry season, and repairs completed as required. " Table 13 of the 2022-2023 EMR details the Cattle Management objective as well as work completed during the audit period to achieve this objective which includes musters and weekly inspections of the cattle exclusion fence. The Cattle Management Fence Line Inspections Register provided evidence that approximately weekly inspections were performed in the dry season during the audit period.	approval and works continue to be undertaken based on the version approved 13Nov2020. Helicopter mustering remains the method used. The Operator advised "consultation with the Chief Veterinary Officer (CVO) was not required during the audit period, noting a representative from the CVO's Department manages the cattle musters". OBS: Document weekly inspections of the cattle exclusion zone fence undertaken, or amend the inspection schedule in the Cattle Management Plan to reflect what is practical.
Schedule D - 6	From the date of authorisation of the Overburden Management Project the Operator must undertake monitoring in accordance with the following Environmental Management Plans approved in the MMP:									Refer to sub conditions		
	Dust Management Plan; Schedule D - 6.a	1						1	N/A	Not Applicable		There was no plan with this name in the approved MMP and therefore this subcondition is considered N/A. DITT has updated the Authorisation to remove reference to a Dust Management Plan. The Air Quality Management Plan is the relevant plan for dust management. Refer to condition Schedule D - 6.c.
Schedule D - 6.a	Adaptive Management Plan, which includes:									Refer to sub conditions		Adaptive Management Plan The AMP is a framework document and does not require monitoring specifically, but rather makes reference to monitoring contained within specific management plans such as the WMP, AQMP and RMP.

Authorisation Co	mnliance Workh	nock - Operator													
5 May 2022 Authorisation	18 June 2021	Condition/Requirement	ir Quality (dust & ulphur dioxide, ransport)	urface Water (River, ireek, Artificial dams) Aarine Waters (Bing	ong, marine ediments)	iroundwater quatic fauna (fish	ver) egetation & ehabilitation	Serrestrial, diversion & IOEF)	Vaste (general, mine ock, tailings)	ndigenous & public)	nontroring & eporting	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule D - 6.a.i	Schedule D - 6.b	Water Management Plan	A S S S S S S S S S S S S S S S S S S S	1	S .	1	1			2	1	4	Full Compliance	MRM - Water Management Plan (May 2022). Aquatic Fauna Monitoring Early Dry and Late Dry Season (2 reports). Annual Marine Monitoring Program of the BBLF dated 24May2023. Surface Water Monitoring Report 2022/2023 dated 5Jul2023. Annual Groundwater Report 2022/2023 dated Jul2023. Freshwater Aquatic Macroinvertebrate Assessment dated 23May2023. Monitoring of Select Analytes in Fluvial Sediment and Aquatic Fauna . Environmental Monitoring Schedule Rev 3 dated 25Oct2022. Weekly Water Quality Memos - 19th to 21st and 5th to 14th February 2023. 2022/23 Annual Site Water Balance for the MRM Water Balance Forecast Report dated 14Mar2023 and 28Jul2023. 2022/2023 Site Water Balance for BBLF dated 17Aug2023. EMR 2022-2023 dated 31Aug2023. BBLF Dam TARP summary tables dated 17Aug2023. SW29 Data Export 2022-2023. MRM Dam TARP summary table dated 17Jan2023 (rev 0, 23Dec2022). WMP stated "The TARPs are developed annually prior to wet season to reflect current conditions." The TARPs for wet season 2022-2023 have not been incorporated into the WMP and the versions provided as evidence appear to have been prepared after the wet season commenced. The Freshwater Macroinvertebrate Assessment includes the monitoring required by the WMP. It is noted in Section 2.7 that there were constraints that limited continuous monitoring at some sites. The Monitoring of Select Analytes in Fluvial Sediment and Aquatic Fauna report includes the monitoring required by the WMP.	Site SW29 was selected to confirm that the required monitoring had occurred and except for where access was not safe, weekly monitoring was evident. Continuous EC monitoring is audited under condition Schedule D - 2. The Annual Groundwater Report includes the monitoring required by the WMP and Section 3.3.2 states constraints occurred. Section 4 of the Aquatic Fauna Monitoring Early Dry Season states: "The analysis detected no significant difference (p=0.1) in aquatic fauna assemblages between performance indicating sites and reference sites, demonstrating compliance with the AMP Level 1 trigger to continue monitoring and annual reporting (Table 11)." And then noted "equipment malfunction prevented the use of the electrofisher at Cattle Yard (site 17) and 8 Mile (site 18)." Bores GW124D, GW124S, GW119D, GW19065, GW19066, GW19067 are decommissioned as shown in the EMR 2020 - 2021 but remain included in the 2022/2023 Monitoring Schedule included in the 2022-2023 EMR. A Dam TARP summary for BBLF appears not to have been prepared in 2022. The first version of the Dam TARP summary for the Mine relevant to the 2022/2023 wet y season is dated 23Dec2022. OBS: Revise TARPs annually prior to each wet season to ensure they are up to date and the WMP should be updated accordingly.
Schedule D - 6.a.ii	Schedule D - 6.c	Air Quality;	1								1	4	Full Compliance	Ambient Air Monitoring Report May 2022 - April 2023 dated 25Jul2023. EMR 2022-2023 dated 31Aug2023. Air Quality Management Plan dated 1Oct2021. Section 8.1.2 of the Ambient Air Monitoring Report states: "Table 8-2 and Table 8-3 present summaries of the annual average deposited dust and metal results respectively. There were insufficient data in the 2022-2023 EMR period (i.e. less than 75% data availability per calendar quarter) to calculate an annual average at DDG58 and DDG60 due to a lack of access to these monitoring locations for the last three months of the review period." Section 4 of the AQMP describes the 3 monitoring programs: SO2, HVAS and Deposited Dust Gauge. This section also outlines frequency of testing and methodology for each test, all of which are consistent with the monitoring discussed in the AAMR. Appendix A of the AAMR details the HVAS data from May 2022 to April 2023. It is noted that there are multiple instances where a period beyond 6 days passed without a recorded data reading. Appendix B of the AAMR details the SO2 Air Sampling Data from May 2022 to April 2023.	

Authorisation Co	mpliance Work	oook - Operator										Evidence 2022	Commonts 2022
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine	Groundwater Aquatic fauna (fish	river) Vegetation & Rehabilitation (terrestrial, diversion &	, Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule D - 6.a.iii		Rehabilitation Management Plan				1			1	4	Full Compliance	Acoustic Monitoring Program dated 9Jan2023. Revegetation and Monitoring Report dated 23May2023. Riparian Bird Monitoring Early Dry Season Report dated 1Jun2023. Riparian Bird Monitoring Late Dry Season Report dated 16Jan2023. McArthur River and Barney Creek Revegetation Monitoring Report dated 23May2023. Rehabilitation Management Plan dated 31Mar2021. Section 2.2 of the Revegetation and Monitoring Report states: "The initial 20 early-stage revegetation plots were established in 2018 with the three-year inter-annual comparison undertaken in 2020. However, during the 2021 monitoring period, six of the 20 plots initially established in 2018 were again surveyed as they had previously experienced elevated levels of erosion and reduced seedling establishment. As 14 of the original 20 early-stage plots no longer required monitoring, an additional 12 early-stage plots were also established in 2021. Following on from the 2021 assessment, it was decided that the six plots initially established in 2018 no longer required monitoring." Section 3.2 of the Riparian Bird Monitoring Late Dry Season Report states "Riparian bird sampling was undertaken in November 2022 (1/11/2022 to 13/11/2022) durin late dry season conditions."	Section 9.1 of the RMP states "In order to determine the short-term success of revegetation works prior to their first wet season rainfall; fortnightly visual inspections of the rehabilitation area will be completed by a member of the Rehabilitation Team. Aspects such as vegetation health and mortality rate will be assessed in accordance with the Channel Revegetation Assessment Procedure." The RMP requires annual monitoring of revegetation in April/May and the Revegetation and Monitoring Report dated 23May2023 states "To meet statutory requirements, revegetation monitoring along the McArthur River and Barney Creek diversion channels has been conducted annually since 2012 and continued in 2022." Section 9.2.3 of the RMP states: "Monitoring of rehabilitation will be conducted annually and will consist of an intensive data collection period (fieldwork), data analysis and reporting." Section 2.1 of the Acoustic Monitoring Program states: "During the 2022 period, array maintenance and downloading were undertaken in August (Figure 5), with all receivers located after the 2021/2022 wet season. However, hardware malfunctions occurred within the receivers at Lower McArthur River Diversion Channel, Cattle Yard and Kilgour River, which ceased recording at some point. Therefore, there were periods when data from a number of receivers were not available (Figure 5). The hardware issue in 2022 is the same as that which occurred in 2019 and 2021 when the majority of receivers failed as a result of the circuit boards corroding after briefly being exposed to the humid atmosphere when changing batteries."
Schedule D - 6.b.		Waste Management Plan					1		1	4	Full Compliance	Waste Management Plan 2018-2020 dated 2020. Environmental Monitoring Schedule Rev 3 dated 25Oct2022. EMR 2022-2023 dated 31Aug2023. Section 3.3 of the EMR includes the quantities of landfill and recyclable waste streams generated by Non-Mineral Waste Streams.	Section 8 of the Waste Management Plan details monitoring, which states: "Waste records are submitted to the Environment Department on a monthly basis and analysed against previous quarter's volumes. Any significant changes in volumes are investigated further with the respective department."
Schedule D - 6.c		NOEF Management Plan					1		1	4	Full Compliance	NOEF Management Plan dated 31Jan2020. ICE Endorsement of the NOEF Management Plan dated 23Jan2020. EMR 2022-2023 states "A summary of NOEF temperature monitoring program and resulting during the reporting period are provided in Appendix C."	Evidence of implementation is reflected in the ICE Design Reviews, Construction Reports and ITPs that are included in this audit workbook. The requirement for material tracking through use of a Global Positioning System (GPS) tracking system as required by the NOEF Management Plan was observed by the Independent Monitor during a site visit (e.g., Fleet Management System).
Schedule D - 6.d		BBLF Environment Management Plan							1	4	Full Compliance	Annual Seagrass Survey of the BBLF dated 23May2023. BBLF EMP dated 31Mar2021. EMR 2022-2023 dated 31Aug2023. Metal and Metalloids in Near Shore Sediment BBLF Report dated 23May2023. Ambient Air Monitoring Report dated 25Jul2023. Section 4.4.1 of the EMR states: "Twenty-nine depositional dust gauges (23 near the Mine [including two control sites] and six near the BBLF [including one control site])." and this is equal to the requirements in the BBLF EMP. Section 8.2.1 of the AAMR describes the 4 Deposited Dust gauge BBLF monitoring sites which measure detectable concentrations of arsenic, cadmium, iron, lead, manganese and zinc mass fractions collected from the routine monthly BBLF dust gauge, and the results of these samples are listed in Appendix C of AAMR. This is equal to the requirements in the BBLF EMP. Section 4.15.1 of the 2022-2023 EMR states: "The annual monitoring program consists of seven sampling zones which are presented in Figure 30. Three of these zones are potential impact zones, where contaminants may be directly introduced." and this is consistent with the BBLF EMP requirement. Appendix 3 of the Metal and Metalloid Concentration Report outlines the data for the seven sampling sites.	Section 6.1 of the BBLF EMP states: "These monitoring programs are Surface water quality samples are collected in accordance with MRM Artificial Surface Water Monitoring Procedure (PRO-2200025)." Section 6.2 of the BBLF EMP states: "Groundwater quality samples are collected in accordance with MRM Groundwater Monitoring Procedure (PRO-2200024)." Section 6.4.2 of the BBLF EMP states: "The monitoring program consists of seven sampling zones which are presented in Figure 7, and listed in Appendix G. Data from the near shore sediment monitoring sites is collected annually, and samples are analysed for:"

Authorisation Co	mpliance Work	book - Operator											
5 May 2022 Authorisation	18 June 2021	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams) Marine Waters (Bing Bong, marine sediments)	Groundwater Aquatic fauna (fish	Vegetation & Rehabilitation (terrestrial, diversion &	Waste (general, mine rock, tailings)	Community (local indigenous & public)	Monitoring & Reporting	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule D - 6.e		Unplanned Closure Plan							1	4	Full Compliance	Unplanned Closure Plan dated Jan2023. EMR 2022-2023 dated 31Aug2023. The Unplanned Closure Plan references various monitoring as included in the WMP AQMP and RMP, which are assessed under Schedule D Condition 6 - a. Unique to the UCP in terms of monitoring is that related to the rehabilitation trials. For example the Geosynthetic Liner Cover System Plan would be relevant but it is not approved. The EMR 2022-2023 discusses monitoring that is related to rehabilitation trials.	Any monitoring required post unplanned closure is not applicable as the site is operational.
	Schedule D - 6.d	Vegetation and terrestrial fauna;				1			1	N/A	Not Applicable		There is no plan with this name in the approved MMP and therefore this subcondition is considered N/A. The 5May2022 Authorisation removes Vegetation and terrestrial fauna as a plan and now states Rehabilitation Management Plan an Water Management Plan.
	Schedule D - 6.e	Aquatic fauna;			1				1	N/A	Not Applicable		There is no plan with this name in the approved MMP and therefore this subcondition is considered N/A. The 5May2022 Authorisation removes aquatic fauna as a plan and now states Rehabilitation Management Plan and Water Management Plan.
	Schedule D - 6.f	Heritage and sacred sites.						1	1	N/A	Not Applicable		There is no plan with this name in the approved MMP and therefore this subcondition is considered N/A. Reference to a Heritage and sacred sites plan has been removed from the 5May2022 Authorisation. The Operator advised that this is regulated outside of the Authorisation.
Schedule D - 7		Any required material changes to the Environmental Management Plans mentioned in Condition 6 of this Schedule must be approved by the Department in writing.							1	4	Full Compliance	AMP version E dated May2022. Water Management Plan 27May2022. Unplanned Closure Plan dated Jan2023. The Unplanned Closure Plan was updated (add details from docs) and resubmitted in the audit period (September 2022). This amendment is still awaiting approval from DITT.	The Operator advised "There have been no material changes to the Management Plans in Condition 6 during the audit period." The Operator submitted AMP version E to DEPWS, not DITT. DTIT advised that the difference between version D and version E is in relation to the Water Manageme Plan (to address requirements of the WDL) and one minor change to the AMP. The Operator did not submit a singular document entitled "AMP_version E" to DITT, rather they advised DITT of the changes. Similarly the Water Management Plan changes were not material to DITT. Revised Unplanned Closure Plans were submitted as audited under Conditions 11 and 99.
Schedule D - 8	Schedule D - 8	For the purposes of managing chemicals and flammable or combustible liquids, the Operator must:									Refer to sub conditions		
Schedule D - 8.a	Schedule D - 8.a	store and handle all hazardous chemicals, toxic substances, gases and dangerous goods associated with the Mine in accordance with the current Australian Standard where such is applicable, and the laws of the Northern Territory;							1	4	Full Compliance	MET-221218-MECH 91TK02 MONTHLY VALVE & VENT INSPECTION. MET-230104-ELEC 91TK01 MONTH LEVEL CONTROL ALARM CHECK. MET-230204-MECH 91TK01 MONTHLY VALVE & VENT INSPECTION. 230204 26PI01 THICKNESS ACID SYSTEM dated 24Jan2023. Mining Diesel Fuel Facility Electrical ITRS Oct2022. Mining Diesel Fuel Facility OPSM PIE62285 (1) Mining Diesel Fuel Facility QADP PIE62285 (3) The Operator advised "The Mining Diesel Fuel Facility has been installed and commissioning is almost complete. Provided are two design documents that refer to the relevant standards. Also provided is an electrical compliance check sheet."	The Operator has outlined that an independent third party inspection of the chemical storage on site by Risk Management Technologies (ChemAlert) is planned for Q3 or Q4 2023.

Authorisation Co	ompliance Workb	ook - Operator					<u>ع</u>						Evidence 2023	Comments 2023
	18 June 2021 Authorisation Condition No.	Condition/Requirement	Air Quality (dust & sulphur dioxide, transport)	Surface Water (River, Creek, Artificial dams Marine Waters (Bing Bong, marine	sediments) Groundwater	Aquatic fauna (fish river)	Vegetation & Rehabilitation (terrestrial, diversion NOEF)	Waste (general, mine rock, tailings)	Community (local ndigenous & public)	Monitoring & Reporting	Score	Compliance Level		
Schedule D - 8.b	Schedule D - 8.b	include bulk storage tanks and associated infrastructure on a maintenance schedule which conforms with the current Australian Standard where such is applicable, and the laws of the Northern Territory;								1	4	Full Compliance	230204 26PI01 THICKNESS ACID SYSTEM dated 22Jan2023. Acid tank 2 preventative maintenance date Forecast acid tank 2 (sfleming2 v1) Schedule. Forecast fuel farm tank 1 (sfleming2 v1) Schedule. Forecast fuel farm tank 1 Schedule. Forecast fuel farm tank 1 Schedule. Fuel farm tank 1 Preventative Maintenance Schedule MET-221218-MECH 91TK02 MONTHLY VALVE & VENT INSPECTION. MET-230104-ELEC 91TK01 MONTH LEVEL CONTROL ALARM CHECK. MET-230204-MECH 91TK01 MONTHLY VALVE & VENT INSPECTION. Mining Diesel Fuel Facility Electrical ITRs October 2022. Maintenance schedules show records of forecast planned works and maintenance starts dates. Visual inspections were schedule monthly for the diesel storage tank in the audit period.	
Schedule D - 8.c	Schedule D - 8.c	include regular integrity testing to ensure loss of containment or failure of bulk storage tanks does not occur.		1	1					1	4	Full Compliance	MET-221218-MECH 91TK02 MONTHLY VALVE & VENT INSPECTION MET-230104-ELEC 91TK01 MONTH LEVEL CONTROL ALARM CHECK MET-230204-MECH 91TK01 MONTHLY VALVE & VENT INSPECTION MET-220719-ELEC MONTHLY LEVEL CONTROL ALARM CHECK TK01 dated 16 Jul202 (after audit period). MET-220719-MECH 91TK01 MONTHLY VALVE & VENT INSPECTION dated 20Jul2022 (after audit period). Diesel storage tank. MET-220719-MECH 91TK01 MONTHLY VISUAL TANK INSPECTION 20Jul2022 (after audit period). Diesel storage tank. MONTHLY VISUAL TANK INSPECTION 20Jul2022 (after audit period). Diesel storage tank. Monthly visual tank inspection focuses on the whole of tank for general condition including damage, rust and seepage from welded seems.	

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5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management Open Pit/Undergroune	Workings Tailings Storage Facility	Tailings Storage Facility Water Management	and Storages Overburden	Emplacement Facilities	Expioration Waterways (including river diversion)	Bing Bong Loading Facility	Score	Compliance Level	Evidence 2023	Comments 2023
HEDULE A	SCHEDULE A													
initions	Definitions													
1	1	In this document, unless the contrary intention appears:										-		Note that sub-conditions 1.a to 1.z are not listed as they are all definitions an unable to be audited for compliance.
rpretation	Interpretation													
2	2	In this document, unless the contrary intention appears:										-		Note that sub-conditions 2.a to 2.h are not listed as they are all interpretation are unable to be audited for compliance.
eral	General													
3	3	Subject to any Conditions contained in the Act and this document, the Operator must comply with the commitments and activities contained in the MMP including the implementation of all systems referred to in the MMP.	1								3	Part Compliance (High)	Section 5 of the January 2020 MMP Appendix G NOEF Design and Construction Guidelines states "MRM complete an as-built factual report for the works, at the sooner of completion of the works or annually. a) ICE reviews and endorses as being correct." No evidence of annual as-built factual reports for the NOEF have been provided and this is considered part compliant as they are a requirement of Appendix G of the MMP. There were no other instances of not meeting the MMP identified in the audit period.	currently being prepared. The EMR 2022-2023 stated "All drilling during the reporting period was under in accordance with the January 2020 MMP.", "Ore identification and mark-unduring the reporting period was consistent with the process described in the January 2020 MMP.", "MRM operated in accordance with the January 2020 which describes the MRM waste rock classification criteria.", "The clearing a stripping activities undertaken in accordance with the 2020 MMP during the reporting period []", "During the reporting period, management of the tail was undertaken as described in Section 4.4.6 of the January 2020 MMP" and incident was assessed in accordance with the approved Environmental Incid Reporting Protocol, appended to the MMP." OFI: Prepare annual as-built factual reports for the NOEF as required by the
4		The Operator may only conduct mining activities identified in the MMP within the Mine subject to any Conditions contained in the Act, this document and the Conditions commitments and systems contained in the MMP.	1								4	Full Compliance	Sighted figure showing 2023 MMP amendment activities North Clean Drain Ground Disturbance Permit #35917 dated 30May2022. North West NOEF Stage Clearing Boundaries Ground Disturbance Permit #35685 dated 1Apr2022 (before audit period but for work in the audit period). North Clean Additional Ground Disturbance Permit #42155 dated 27Oct2022. Map EMR23 NOEF Construction Progress 2022-2023 EMR 2022-2023 dated 31Aug2023. Submission of proactive 2023 MMP amendment shows that there is a process in place for where any activities outside of the MMP are required and they do not occur until an amendment is approve. Clearing permits include the prompt "Is the clearing work consistent with the current MMP". EMR 2022-2023 Figure 4 shows the mining activities during the audit period. No instances were identified for during the audit period of the Operator conducting mining activities other than as included in the MMP.	MMP amendment submitted 5May2023 for additional clearing requirement Sighted figure showing 2023 MMP amendment activities. The Operator advised that mining activities are only conducted as consisten the MMP.

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Authorisation Co 5 May 2022 Authorisation Condition No.	18 June 2021	book - Operator Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility	5	Score	Compliance Level	Evidence 2023	Comments 2023
5	5	The mine site is to be developed and operated in accordance with relevant legislation e.g. Environment Protection and Biodiversity Conservation Act 1999, Northern Territory Aboriginal Sacred Sites Act 1984, Territory Parks and Wildlife Conservation Act 1976 and Heritage Act 2011.	1										4	Full Compliance	Act Approval 2003/954 dated 30Sep2022. MRM Aboriginal Cultural Heritage Management Plan - 14Jun2022.	The Operator advised that the CHMSE Report has not been updated during the audit period. The Operator also stated that the latest Compliance Reports for the EPBC Act Approvals provided demonstrate that the mine site is developed and operated in accordance with the Environment Protection and Biodiversity Conservation Act 1999.
Mining management	Mining manageme	The Operator must on 31 August 2021 and on each anniversary of that date (or such other date as nominated by the Operator and approved by the Minister), review the approved MMP and if necessary, amend the MMP.	1										4	Full Compliance	Correspondence between DITT and Operator relating to Annual Review of MMP (Condition 6). Correspondence between Operator and DITT relating to Annual Review of MMP (Condition 6). EMR 2021-2022 31Aug2022. Correspondence between Operator and DITT relating to 2022-2023 EMR Submission. 2022-2023 EMR dated 31Aug2023. Correspondence between DITT and Operator relating to Annual Review of MMP (Condition 6) "The department acknowledges MRM's compliance with Condition 6 of VOA 0059." Evidence provided in email from MRM to the Department also confirms that the MMP (approved 2020) had been reviewed on 31 August as part of the 2021-22 EMR process. It has been identified that future amendments to the approved MMP may be required in 2023. 2021-22 EMR 31Aug2022 Section 6.8 states that: "In consideration of the results presented in this EMR, the Mining Management Plan has been reviewed and it was determined that no updates are currently required in order for MRM's key environmental management objectives to continue to be met. " The 2022-2023 MRM submission letter states that: "Amendment to MMP approved by the Department on 17 May 2023. A review of the MMP undertaken in parallel with the EMR preparation, which found that no further amendment was currently required. The next MMP amendment is planned to be submitted in Q2 2024."	
7	7	The Operator must submit annually all environmental monitoring data which has been collected since the previous data submission. The data submission must be provided in the approved form (being an MS Excel template that can be provided on request) and include laboratory and field data for the following:												Refer to sub conditions	29April2023 annual data package (2021 to 2022 data). Correspondence between Operator and DITT relating to Annual Data Submission. Correspondence between Operator and DITT relating to Annual Data Submission Acknowledge Receipt. Correspondence between Operator and DITT relating to 2022-2023 EMR Submission (after the audit period). The 2022-2023 EMR Submission Letter states that: "The condition does not specify a due date for the submission of the annual data. MRM plan to submit the previou 12 months' data following the submission of the annual EMR, and within the following months."	document in relation to environmental monitoring requirements". The Operator advised "The May 2022 to April 2023 data will be submitted following the 2022 - 2023 EMR. " The Operator has advised that future submissions will be made with the EMR.
7.a	7.a	surface water;	1				1			1			4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator related to acknowledgment of receip of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included surface water analyses.	

Authorisation Co	mnliance Workh	ook - Operator														
	18 June 2021 Authorisation	Condition/Requirement	Governance/General	Non-mineral Waste Vlanagement	Open Pit/Underground Morkings	Failings Storage Facility	Nater Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including iver diversion)	Sing Bong Loading	aciity	Score	Compliance Level	Evidence 2023	Comments 2023
7.b	7.b	groundwater;	1										4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator relating to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included groundwater levels and analytical results.	
7.c	7.c	dust;	1										4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator relating to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included dust analyses.	
	7.d	soil;	1										N/A	Not Applicable		No soil sampling was submitted as it is no longer required and this condition has been removed from the April 2022 Authorisation
7.d	7.e	sediments;	1							1			4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator relating to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Correspondence between Operator and DITT relating to Q1 2022. The file submitted included fluvial sediment.	
7.e	7.f	gas; and	1										4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator relating to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Correspondence between Operator and DITT relating to Q1 2022. The file submitted included sulphur dioxide (SO ₂) monitoring data for when it was undertaken.	
7.f	7.g	water transfers and discharges (including dates, times and volumes).	1										4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator treating to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included water transfers and discharges.	No discharges occurred in the 2022-2023 audit period. However the data submitted in the audit period was for the 2021-2022 period that included discharges.

Authorisation Co	mpliance Workb	ook - Operator														
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Jpen Pit/Underground ∕Vorkings	failings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including iver diversion)	Sing Bong Loading	acility	Score	Compliance Level	Evidence 2023	Comments 2023
8		From the date of authorisation of the Overburden Management Project, the Operator must provide an "as built" construction report, for the structures that the approved MMP specifies require "as built" construction reports, at the completion of each structure approved as per the MMP, within 30 days upon construction being finalised.	1					<u> </u>					2	Part Compliance (moderate)	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Correspondence between Operator and DITT relating to Condition 48.g - SPROD & SEPROD Construction. Correspondence between DITT and Operator relating to Clarifying compliance requirements for perimeter runoff dams. Correspondence between DITT and Operator relating to Acceptance Letter - TSF Quarterly Reports June 2021 to Sept 2022. Correspondence between Operator and DITT relating to Quarterly Report October 2022 - December 2022. Evidence demonstrated submission of the EPROD and SPROD Construction Reports The EPROD Construction Report dated Nov2022 states "Construction of the ancillary items were completed by November 2020." however, the construction report was not provided for two years. SPROD (lining and spillway) works appear to have been undertaken in 2019 and 2020. TSF Raising – General Specification for Design and Construction states in Section 5.4.8 "Records documenting the construction of the raises are essential for ongoing management and design of future TSF raises. The records should be collated and presented in a Construction Report along with "As-Constructed" drawings and survey for the raise." There has been no evidence provided that the Operator submitted as built construction reports for the TSF Cell 1 Stage 5 or Cell 2 Stage 6 raises that were completed more than 30 days before the end of the audit period and identified as not submitted in the AEPAR 2022. Evidence was provided that the Cell 2 Stage 7 raise construction report was issued to DITT 30May2023 (after the audit period).	The Authorisation dated 17May2023 includes Condition 8.a. "annually submit to the Department, unless otherwise agreed to in writing b the Department, a list of structures scheduled to be constructed in the coming year that will have an "asconstructed" construction report developed subject to Condition 48(g) and in accordance with the approved MMP" and for Condition 8.b. "submit the "asconstructed" construction reports subject to the above condition for each structure to the Department within 60 days, or an alternate date agreed to by the Department in writing, upon construction being finalised." This will ensure a clear annual requirement for what "as-constructed" construction reports are required. Letter DITT to Operator dated15Feb2023 states "In addition, for MRM to deliver against Condition 48(g) of the Authorisation, it is requested that the following documents are submitted with the next quarterly submission: * the As Built Construction Reports for the Cell 2 Stage 7; and * any other relevant works completed at the TSF." OFI: Submit 'as built' construction reports for the TSF to DITT within 30 days upon construction being finalised.
9		The Operator must submit on or before 31 August 2021 and on each anniversary of that date (or such other date as nominated by the Operator and approved by the Minister), an EMR for the previous year in the reporting period as agreed with the Department.	1										4	Full Compliance	EMR 2021-2022 dated 31Aug2022. Correspondence between Operator and DITT relating to 2021-22 Environmental Monitoring Report. Correspondence between Operator and DITT relating to 2022-2023 EMR Submission (after the audit period).	
Security and levy	Security and levy															
10		The Operator must provide to the Minister a security of \$476,476,968 in the form of cash or an unconditional bank guarantee prior to undertaking any mining activities authorised by this Variation of Authorisations 0059-01 and 0059-02.	1										4	Full Compliance	Independent Monitor sighted email evidence of payment of the increase in the security of \$71,360,300 via \$40,000,000 and \$31,360,300 and receipted by NT government 20May2022. Correspondence between Operator and DITT relating to Approval - MRM's 2022 UCP and VOA 0059. Correspondence between DITT and Operator relating to Approval - MRM's 2022 UCP and VOA 0059.	The security provided to the Minister has increased from \$405,116,668 in Authorisation 18Jun2021 to \$476,476,968 on 5May2022.
11	11	The security provided for under Condition 10 will be reassessed, and may be revised, following the submission, assessment and approval of an:												Refer to sub conditions		
11.a	11.a	independent third party assessment of the security by a qualified person approved by the Minister (also refer Condition 40);	1										N/A	Not Applicable	The Operator outlined that there were no independent third party assessments of the security other than that which related to the Unplanned Closure Plan covered in condition 11.c, below.	There was no requirement for independent third party assessment during the audit period. One was undertaken related to the Unplanned Closure Plan covered in condition 11.c.
11.b	11.b	amended MMP;	1										N/A	Not Applicable		Not triggered as there were no amended MMPs in the audit period.

Authorisation Co	mpliance Work	pook - Operator										_				
Authorisation Co	mphance works	ook - Operator			9	₹		S							Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	overnance/General	Jon-mineral Waste Aanagement)pen Pit/Undergroun Vorkings	ailings Storage Facilit	Vater Management Ind Storages	Verburden implacement Facilitie	xploration	Vaterways (including iver diversion)	ing Bong Loading acility		Score	Compliance Level		
11.c	11.c	amendment to the Unplanned Closure Plan.	1		0		A &		E	A			4	Full Compliance	2023 UCP Submission dated 30Sep2022 Independent Audit of 2023 UCP dated 23Jan2023 Operator to DITT subject FW: MRM 2023 Unplanned Closure Plan and Security Assessment dated 23Jan2023. MRM Unplanned Closure Plan dated Jan2023. MRM Security Calculation 2023 dated 30Sep2022. MRM Security Calculation 2023 Supporting GIS dated 2023. MRM Security Calculation 2023 Final 2022 Comparison dated 30Sep2022. Correspondence between MRM and DITT relating to Updated Unplanned Closure Plan and Independent Security Assessment. Correspondence between Operator and DITT relating to 2023 Unplanned Closure Plan and Security Assessment. Correspondence between Operator and DITT relating to 2022 Unplanned Closure Plan. Rehabilitation Security Audit 2023 dated 15Dec2022. Correspondence between Operator and DITT relating to Unplanned Closure Plan and Independent Security Audit. Correspondence between Operator and DITT relating to Unplanned Closure Plan and Independent Security Audit. Correspondence between Operator and DITT relating to Unplanned Closure Plan and Independent Security Audit. The security Assessment.	An amendment to the Unplanned Closure Plan was submitted in August 2021 (before the audit period) and was approved on 5May2022 (in the audit period). Operator changed to requesting a three year approval and inclusion of Unplanned Closure to provide more surety around the approval timing to not disrupt operations. Assessment undertaken by Phronis Consulting. Another amendment to the Unplanned Closure Plan was submitted on 30Sept2022. Phronis Consulting prepared an independent assessment that was submitted to DITT on 23Jan2023. DITT are yet to provide an approval. (The Operator has been liaising with DITT on comments and submitted a revised security on 5May2023 and a new Authorisation is expected).
12	12	The revised security amount to be provided under Condition 10 is to be provided prior to creating the new disturbance, covered under the revised security as per written notification from the Department. For the avoidance of doubt, the Operator must provide the revised security amount in the form of cash or an unconditional bank guarantee to the Minister.	1										4	Full Compliance	Ground disturbance permit #37147 South East Alpha foundation work clearing boundaries (dated 11Aug22). The ground disturbance permit provided for the South East Alpha foundation work clearing boundaries was approved after the security deposit had been paid.	New security May 2022 took operations out to life of mine for major domains (ancillary works like clearing would still occur as required annually, etc). This requires additional security payment by the Operator but allows for more flexibility in delivery on site (i.e. approval obtained for more advance so no hold up to works). The next security was approved May 2023. The Operator advised "The first evidence of clearing occurring in accordance with activities solely outlined in the 2022 UCP were approved on the 11th of August 2022 and were associated with the development of the NOEF South East Alpha foundation."
13		Each financial year, upon receipt of a written notice by the Minister as to the levy payable for that financial year, the Operator must pay a levy to the Mining Remediation Fund of an amount calculated in accordance with the Act and as stated by the Minister in the notice.	1										4		Receipt for payment of \$4,764,768 September 2022. Correspondence between DITT and Operator relating to Variation of Authorisation 0059 and Security Request. Correspondence between DITT and Operator relating to Variation of Authorisation 0059, Unplanned Closure Plan and Security Request. Correspondence between DITT and Operator relating to G0124808 MCARTHUR RIVER MINING PTY LTD (MRM). The payment was made as required.	
Overburden Managen	Overburden Manag	gement Project														
Explanatory note:	Explanatory note:	The following conditions were introduced in the previous variation, dated 15 August 2019 to reflect the intent of the thirty recommendations made by the NT EPA in the making of their Assessment Report 86 published July 2018. The NT EPA articulated an overarching environmental objective to be achieved during operation of the Mine: to ensure the health of McArthur River is protected along its whole length at all times from mine related impacts. The Minister accepted the recommendations as overarching conditions for the life of the project and have been retained to achieve transparency.											-			Explanatory note and therefore not audited.
14	14	The Operator must ensure activities related to the McArthur River Overburden Management Project are implemented in accordance with:												Refer to sub conditions		

Authorisation Co	mpliance Workb	oook - Operator														
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	Facility	Score	Compliance Level	Evidence 2023	Comments 2023
14.a	14.a	all environmental commitments and safeguards identified in the final Environmental Impact Statement for the McArthur River Mine Overburden Management Project (draft Environmental Impact Statement, Supplement to the draft Environmental Impact Statement and additional information);	1					1					3	Part Compliance (High)	2021-2022 Reconciliation of Commitments and Actions Register undated. The Operator has outlined that the Register will be updated as part of the EMR process in August. The review identified that all the OMP EIS commitments provided in the MMP (Appendix M) were addressed in the EMR; however, other commitments identified in the MMP (Appendix L) were not addressed. Notwithstanding, from the 13 commitments identified in the MMP (Appendix L), all appear to be addressed to some extent within the OMP EIS commitments, apart from one commitment, i.e., 'Install additional groundwater monitoring at Bing Bong'. In total, 230 commitments were identified in the EMR. Of these, 158 commitments were identified to be ongoing (i.e., relating to ongoing committed activity at the Mine), eight commitments were identified to be not currently relevant (e.g., commitments relating to specific actions during closure stage). Of the 158 ongoing commitments may be incompletely addressed.	OFIs are not included here as they are provided in the Commitments - Operator Review section in the AEPAR.
14.b	14.b	recommendations in the NT EPA Assessment Report 86 where they are approved under an MMP;	1					1					N/A	Not Applicable		Given the NT EPA recommendations audit of the Department identified that all NT EPA recommendations are incorporated as conditions in the Authorisation, audit of this condition is covered under other relevant Authorisation conditions.
14.c	14.c	if there is any inconsistency between the above documents, the most recent authorisation shall prevail to the extent of any inconsistency.	1					1					N/A	Not Applicable		No inconsistency was found.
15		The Operator must provide written notice to the Minister and NT EPA if it alters or proposes to alter the McArthur River Mine Overburden Management Project and/or commitments, safeguards or mitigation measures in the Environmental Impact Statement in such a manner that the environmental significance of the action may have changed. The referral should be made in accordance with the Environment Protection Act 2021.	1					1					N/A	Not Applicable		The Operator advised they have not triggered any activities involving major changes that would require written notice to Minister or NT EPA in the audit period. Note the June 2021 Authorisation states ", in accordance with clause 14A of the Environmental Assessment Administrative Procedures 1984."
16		Within 18 months of the date of authorisation of the Overburden Management Project, unless otherwise agreed in writing by the Department, the Operator must submit a plan to the Department for review, that:								1			4	Full Compliance	Water Management Plan 13May2022. Correspondence between Operator and DITT relating to Water Management Plan Update.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan). Operator has submitted the updated plan
16.a	16.a	Enables measurement of total loads of lead and zinc and is consistent with requirements of Condition 27;								1			4	Full Compliance	Water Management Plan 13May2022. Section 4.5.1 of the WMP states that: "Lead and zinc loads are estimated in managed release on a daily basis using measured discharge volumes and managed release water quality. System modelling is used to estimate groundwater loads, calculated for each of the surface water zones using results from MRM's routine groundwater monitoring and an analytical approximation for groundwater flow."	Operator has submitted the updated plan. This condition is marked as completed in the Authorisation dated 17May2023.
16.b	16.b	Quantifies and ensures annual loads of lead and zinc discharged to the McArthur River in future years (July to June) do not exceed the loads discharged in 2017-2018 (as per Condition 68(e)) taking into account seasonal variations in rainfall, and subject to future annual load calculations;								1			4	Full Compliance	Water Management Plan 13May2022. Section 4.5.1 of the WMP states: "The daily lead and zinc loads are estimated by multiplying the daily managed release volumes and the concentration data for each of the managed release points. The loads discharged from all release points are then be summed for the reporting period, which represent the annual mine derived loads contribution from managed releases.' Section 4.5.3 of the WMP states: "Comparison of annual baseflow loads between years would be undertaken to quantify trends and compare baseflow loads to the 2018 EIS predictions."	Operator has submitted the updated plan. This condition is marked as completed in the Authorisation dated 17May2023.

Authorisation Co	mpliance Workb	ook - Operator														
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	Governance/General	Non-mineral Waste Vlanagement	Dpen Pit/Underground Workings	Failings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility	Sco	ore	Compliance Level	Evidence 2023	Comments 2023
16.c	16.c	addresses recommendations and outcomes arising from audits of loads by the Independent Monitor;								1		N,	N/A	Not Applicable		No audits of loads have been undertaken by the Independent Monitor. This condition is marked as completed in the Authorisation dated 17May2023. OBS: Although an audit of loads has not been conducted by the Independent Monitor, this requirement is now redundant as the condition has been removed from the Authorisation dated 17May 2023.
16.d	16.d	include sufficient detail to inform the development of monitoring and management measures (including but not limited to early warning alerts and intervention levels), as part of the site wide AMP (Condition 45);								1			4	Full Compliance	The WMP has been used to develop the monitoring and management measures and TARP (including trigger levels) incorporated in the AMP.	Operator has submitted the updated plan. This condition is marked as completed in the Authorisation dated 17May2023. Section 4 of the WMP states that: "MRM maintains an Environmental Monitoring Schedule (Appendix D) that outlines the most up-to-date water monitoring plans for the Mine site. To ensure monitoring remains relevant and consistent with the WMP's key environmental and operational objectives, the monitoring schedule is updated on a routine basis in response to changing site needs, amendments to regulatory documents and revisions to risk assessments."
16.e	16.e	once approved by the Department, be implemented by the Operator.								1		N,	N/A		Water Management Plan 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted (Received 19012023). MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes. The Mining Officer notes for Jan2023 indicated that DITT had advised MRM at TWG that condition 16 had been satisfied verbally, and letter from delegate to follow." No formal approval of the plan has occurred.	Future item. No formal approval of the plan has occurred.
17	17	By 13 May 2022, the Operator must:												Refer to sub conditions		June 2021 Authorisation triggered this condition 18 months from 13Nov2020 which is the same as by 13May2022. Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
17.a	17 .a	submit a plan to the Department for review, that shall include:								1		4	4	Full Compliance	Water Management Plan dated 13May2022.	This condition is marked as completed in the Authorisation dated 17May2023.
17.a.i	17.a.i	site-specific trigger values determined in accordance with Australian and New Zealand Guidelines for Fresh and Marine Water Quality, 2018 framework, incorporating ANZECC (2000) guidelines, at appropriate monitoring locations, in accordance with Condition 27;								1			4	Full Compliance	Water Management Plan dated 13May2022. The WMP refers to the WDL SSTVs as the levels can be amended by DEPWS.	This condition is marked as completed in the Authorisation dated 17May2023.
17.a.ii	17.a.ii	a commitment that creeks on the mine site show long-term improving trends in water quality within 20 years after cessation of mining;								1		•	4	Full Compliance	Water Management Plan dated 13May2022. Section 3.3 of the WMP states: "The key operational objectives of the MRM water management system and the principal strategies used to achieve them are outlined below: 2. Achieve a recovering trend in the water quality and ecosystem function in creeks on the Mine site within 20 years of cessation of mining".	

Authorisation Co	mpliance Workb	ook - Operator			-5	>		S							Evidence 2023	Comments 2022
5 May 2022 Authorisation Condition No.		Condition/Requirement	iovernance/General	Ion-mineral Waste Aanagement	pen Pit/Underground Vorkings	ailings Storage Facility	nd Storages	Verburden mplacement Facilities	Exploration Waterways (including	iver diversion)	ing Bong Loading acility	Sco	re	Compliance Level	Evidence 2023	Comments 2023
17.a.iii	17.a.iii	methodology to calculate contaminant loads and contaminant concentrations entering creeks and the McArthur River using system modelling that must:			0 >		, p			1	ш ш	Г		Refer to sub conditions		Note previously stated "mine site to show"
17.a.iii.a	17.a.iii.a	use suitable site-specific data collected as part of Condition 26;								1		4	,	Full Compliance	Water Management Plan dated 13May2022. Section 4.5.2 of the WMP states: "System modelling is used to estimate groundwater loads, calculated for each of the surface water zones using results from MRM's routine groundwater monitoring and an analytical approximation for groundwater flow."	This condition is marked as completed in the Authorisation dated 17May2023.
17.a.iii.b	17.a.iii.b	be subject to review by the relevant independent panel;								1		N/	Ά.	Not Applicable		Future item. Independent panel not established in the audit period.
47 - 111 -	47 - 111 -	detail specific assumptions to be tested including but are not												Refer to sub		This condition is marked as completed in the Authorisation dated 17May2023.
17.a.iii.c	17.a.iii.c	limited to: groundwater flow paths;								1				conditions	Water Management Plan dated 13May2022.	This condition is marked as completed in the Authorisation dated 17May2023.
17.a.iii.c.i	17.a.iii.c.i									1		3		Part Compliance (High)	Section 4.5.2 of the WMP states: "Following the estimation of loads for each year, the process will be refined using the data collected, including through testing of assumptions regarding: • groundwater flow paths; • attenuation of metals from mine derived wastes." No detail was found related to specific assumptions to be tested.	Section 4.5.2 of the WMP states "Estimated loads were obtained by multiplying the estimated groundwater flow to each reach by the recorded concentrations of lead and zinc from the groundwater quality records to calculate the load of these contaminants entering the watercourse. Where a range of plausible gradients exists from measured water levels, this range is considered in the calculations. The processes outlined above were conducted separately for the wet and dry seasons to account for the change in groundwater loads due to the seasonal variation in groundwater flux to the various watercourses." No OFI has been prepared as the Authorisation dated 17May2023 has marked this condition as completed.
17.a.iii.c.ii	17.a.iii.c.ii	attenuation of metals from mine-derived wastes;				1		1		1		3	1	Part Compliance (High)	Water Management Plan dated 13May2022. Section 4.5.2 of the WMP states: "Following the estimation of loads for each year, the process will be refined using the data collected, including through testing of assumptions regarding: • groundwater flow paths; • attenuation of metals from mine derived wastes." No detail was found related to specific assumptions to be tested.	This condition is marked as completed in the Authorisation dated 17May2023. No OFI has been prepared as the Authorisation dated 17May2023 has marked this condition as completed.
17.b	17.b	once approved by the Department, implement the plan;	1							1		N/	'A	Not Applicable	MRM TWG Meeting Minutes Jan2023. Conditions 16+17 - Mining Officer Notes Jan2023. The Mining Officer notes had for Jan2023 "DITT advised MRM at TWG that condition 16 has been satisfied, and letter from delegate to follow." No formal approval of the plan has occurred.	Future item. No formal approval of the plan has occurred.
17.c	17.c	incorporate the relevant findings from the plan into the AMP.	1									4		Full Compliance	Water Management Plan 13May2022. AMP Version E 2022 dated May2022. The WMP has been used to develop the monitoring and management measures and Table 8 TARP (including trigger levels) incorporated in the AMP.	This condition is marked as completed in the Authorisation dated 17May2023.
18	18	The Operator must provide a written response to the Department, if an independent technical panel's, required under Condition 21, review of the models and modelling outputs, and the data collection programs that informed the model development at Condition 17(a)(iii) address recommendations for improvements. All relevant outputs must be used to inform and update the AMP.		1		1		1				N/	Ά	Not Applicable		Future item as the panel has not been established. The Operator is in the process of assisting DITT with establishing the panels.

Authorisation Co	mpliance Workb	oook - Operator														
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	Sovernance/General	Non-mineral Waste Vlanagement	Open Pit/Underground Norkings	Failings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including iver diversion)	3ing Bong Loading	acility	Score	Compliance Level	Evidence 2023	Comments 2023
19		Every three (3) years from the date of authorisation of the Overburden Management Project, an independent environmental audit of the Quality Assurance (QA) and Quality Control (QC) procedures and waste rock identification and handling performance must be undertaken and:	1					1					-	Refer to sub conditions		No Operator action in this condition. This was due 13Nov23 but was delayed by COVID restricting travel to site and was subsequently undertaken during this audit period. In accordance with the Independent Monitor's scope task 12, a Waste Rock Handling Procedures audit site visit was undertaken 13 to 15 June 2022.
19.a	19.a	the results of the audit be provided within six (6) weeks to the Department and to the relevant independent panel;	1					1					-	Refer to sub conditions		Waste Rock Handling Procedures audit site visit debrief with DITT was conducted on 16Jun2022. No independent panel was in place. Draft report provided to DITT Dec2022.
19.b	19.b	the Operator must provide a written response to the satisfaction of the Department where findings from the audit and review by the relevant panel includes matters that need to be addressed or areas for improvement.	1					1					N/A	Not Applicable		Future item. The report had not been finalised in the audit period so is considered N/A.
20		From date of authorisation of the Overburden Management Project, new areas of the NOEF foundation development (i.e. areas at base level) that do not currently contain PAF wastes must include a low permeability liner of 0.5m thickness and maximum saturated hydraulic conductivity of 1 x 10-9 metres per second above which future PAF, NAF and benign materials are to be stored.						1					4	Full Compliance	NW Stage Foundation Permeability Test Results Jul2022 - Nov2022. NW Stage Foundation sample ITPS (e.g. Excavate to top of Subgrade, Basal CCL and Benign Rock Fill May2022). The spot checks of Permeability Test Results provided indicated that the saturated hydraulic conductivity was smaller than 1 x 10 9 metres per second (e.g., 3.5 x 10 11, 1.1x10 11, etc) as required. Related to CCL placement the ITP (Excavate to top of Subgrade, Basal CCL and Benign Rock Fill May2022) included "Maximum hydraulic Conductivity 1 x 10-09 m/s" and "Minimum of 500 mm (-0 mm/ +200 mm) thickness and self-shedding profile achieved".	OBS: Monthly construction reports collating permeability test and any non- conformances to Compacted Clay Layer (CCL) thickness or a register of permeability
21		The Operator must provide funding and assist the Department to establish and operate an independent panel(s) of experts to advise on matters affecting the environmental performance of the NOEF, TSF and mine closure planning.	1			1		1					4	Full Compliance	Correspondence between Operator and DITT relating to Technical Working Group Meeting Minutes July 2022. July 2022 working group minutes demonstrated that Independent Panels is a line item in the discussions. The Operator has outlined that this condition is not applicable to the audit period as the Independent Technical Panels have not yet been established. Recent correspondence assisting the Department is provided, the proposed members and chairs for the NOEF and TSF panels are with the Department for assessment.	Operator advised that during the audit period there was no request from the DITT for funding. Terms of Reference are finalised for the TSF and NOEF panels. The mine closure planning Terms of Reference are in draft form. The Operator advised "proposed members and chairs for the NOEF and TSF panels are with the Department for assessment."
22	22	Within 12 months of date of authorisation of the Overburden Management Project, the Operator must submit a report to the Department for review, detailing the results of relevant studies undertaken to inform the requirements for implementation (including timelines) of a NOEF groundwater seepage interception and recovery system that:						1					4	Full Compliance	A NOEF Interception Scheme Report Authorisation Condition 22 was submitted to DITT on 13Nov2021, which is on the due date. Correspondence between Operator and DITT relating to Variation of Authorisation 0059 Condition 22 Report. DITT provided verbal feedback regarding receipt of the submission at TWG.	The Operator advised that at this stage no seepage is expected to report to Barney Creek. This changes at the end of the pit life. On this basis the Operator proposed not to commence construction activities for the interception trench in the short-medium term.

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Authorisation Co 5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	ook - Operator Condition/Requirement	3overnance/General	Von-mineral Waste Management	Dpen Pit/Underground Workings	ailings Storage Facility	Nater Management ind Storages	Overburden Emplacement Facilities	exploration	Naterways (including iver diversion)	sing Bong Loading	acility	Score	Compliance Level	Evidence 2023	Comments 2023
22.a	22.a	controls seepage to the Barney Creek diversion channel and the McArthur River;								1		н	4	Full Compliance	NOEF Interception Scheme Report Authorisation Condition 22 dated 13Nov2021. Appendix 2 - Letter to Operator subject NOEF Interception Scheme – EPBC Condition 12 Report Jun2020. Table 1 of the NOEF Interception Scheme Report states: "The components of the interception scheme are presented in GHD (2020b). KCB (2020) concludes that the interception scheme would be ineffective if constructed in the short-medium term as the groundwater levels are being drawn down below the invert of Barney Creek. The interception scheme may be required after the Open Pit Lake has been established in approximately 2067. A Trigger Action Response Plan (TARP) for the monitoring and management of groundwater levels has been designed in consultation with third party experts and incorporated into the Adaptive Management Plan required under VOA 0059 Condition 93." Letter to Operator subject NOEF Interception Scheme – EPBC Condition 12 Report states: ", we conclude that mitigation measures for NOEF seepage as baseflow to the BCD are not likely to be required for at least several decades and concur that installation of any dedicated interception infrastructure in the short term would not be beneficial. To counter the low likelihood of existing predictions and assessments underestimating the timing and magnitude of any significant NOEF seepage discharging to the BCD, the monitoring and TARP approach proposed by MRM is considered appropriate."	Barney Creek Diversion Channel based on the groundwater model prediction to ensure MRM is able to implement corrective measures (e.g. initiation of detailed design and installation of an interception scheme) prior to significant impacts on the Barney Creek Diversion Channel. A further groundwater monitoring site located between the Barney Creek Diversion Channel and Open Pit would be included in the TARP to confirm the rate of recovery of the water table following the establishment of the Open Pit Lake is as predicted."
22.b	22.b	achieves a recovering trend in the Barney Creek diversion channel and the old McArthur River channel (at SW06) water quality within 20 years of cessation of mining;								1			4	Full Compliance	NOEF Interception Scheme Report VOA Condition 22 dated 13Nov2021. Table 1 of the NOEF Interception Scheme Report states: "As above, the interception scheme would be ineffective within the specified time period, however, MRM is proposing to implement a TARP to ensure that an interception scheme is implemented at an appropriate time if required earlier than anticipated."	"The groundwater monitoring program and relevant TARP will be updated at a more appropriate time closer to cessation of mining operations (and the recovery of groundwater levels), in order to ensure a recovering trend in water quality in the Barney Creek Diversion Channel (including at SW06) within 20 years of cessation of mining. " This condition is marked as completed in the Authorisation dated 17May2023.
	22.c	facilitates achieving requirements of Conditions 16 and 17.								1			4	Full Compliance	NOEF Interception Scheme Report VOA Condition 22 dated 13Nov2021. Table 1 of the NOEF Interception Scheme Report states: "As described, the interception scheme would be ineffective in the short-medium term, however, the implementation of the TARP will not prevent Conditions 16 and 17 from being addressed."	This condition is marked as completed in the Authorisation dated 17May2023.
23		Within 24 months of date of authorisation of the Overburden Management Project, the Operator must submit a NOEF geosynthetic liner cover system plan to the Department for review. The plan must:						1					4	Full Compliance	NOEF Geosynthetic Liner Cover System Plan McArthur River Mine NOEF Geosynthetic Liner Cover System Testing Plan dated 31Oct2022. Correspondence between Operator and DITT relating to Geosynthetic Liner Testing Plan. Correspondence between DITT and Operator relating to Geosynthetic Liner Testing Plan. Correspondence between Operator and DITT relating to Variation of Authorisation 0059 Condition 23 – Geosynthetic Liner Cover System Testing Plan. The Operator has outlined that the NOEF Geosynthetic Liner Cover System Plan has not yet been approved so there is no evidence of implementation at this point.	

Authorisation Co	mpliance Workb	ook - Operator													5.11 2000	. 2022
5 May 2022 Authorisation Condition No.		Condition/Requirement	iovernance/General	Ion-mineral Waste Aanagement	pen Pit/Underground Vorkings	ailings Storage Facility	Vater Management nd Storages	iverburden mplacement Facilities	xploration	Vaterways (including iver diversion)	ing Bong Loading	denny	Score	Compliance Level	Evidence 2023 Commer	nts 2023
23.a	23.a	outline a process (including timelines) to test and evaluate (i.e. criteria) the constructability and effectiveness of geosynthetic liner cover options including a geosynthetic liner /compacted clay layer combination;	9			F :	, a	1	ш 	, i	es u		4	Full Compliance	NOEF Geosynthetic Liner cover System Plan dated 31Oct2022. Table 1 of the NOEF Geosynthetic Liner cover Systems Plan States: "Testing plan including evaluation criteria is detailed in Performance Parameters to be Monitored (Section4) — Timelines for testing and reporting are detailed in Performance Parameters to be Monitored and Reporting (Section 5)" Evaluation of geosynthetic liner cover options including a GSL/CCL combination is discussed, and testing detailed in the following: — Cover Design Alternatives Considered (Section 2.4.2) — Underliner layer options (Section 2.4.5) — Testing to evaluate a GSL/CCL (Section 4) combination is detailed in Performance Parameters to be Monitored" Operator outlines a forecast that complies with satisfactory processes to test and evaluate aspects relating to the geosynthetic liner/compacted clay layer combination.	
23.b	23.b	include implementation of trials on rehabilitated stages of the NOEF;						1					4	Full Compliance	NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022. Table 1 of the NOEF Geosynthetic Liner cover System Plan dated 31Oct2022 States: - Completed and currently under-way trials on rehabilitated stages of the NOEF are discussed in 2021 Large-scale Field Trials (Section 3) - Testing plan including implementation of trials on rehabilitated stages of the NOEF is detailed in Performance Parameters to be Monitored (Section 4). Operator has presented partial results for rehabilitation trials, as the trials are ongoing.	
23.c	23.c	identify relevant performance parameters must be monitored, including but not limited to:						1					4	Full Compliance	NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022. Section 4.3 discusses the effects that erosion could have upon the liner at the surface. Section 4.7 discusses how the tolerance of the liner could be impacted by the variation in chemical composition of the water to which it may be exposed. Section 4.3 and 4.7 include additional performance parameters that are not specifically listed in Conditions 23.c.i to 23.c.v.	
23.c.i	23.c.i	slope stability during extreme events;						1					4	Full Compliance	NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022. Section 4.1 details how slope stability is to be monitored and includes how the safety calculations are informed by extreme moisture and phreatic levels expected during foreseeable weather extremes.	
23.c.ii	23.c.ii	cover performance as a result of heat effects;						1					4	Full Compliance	NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022. Section 4.2 details how cover performance parameters as a result of heat effects are tested, including the tests standards to be used based on soil type and temperature conditions.	
23.c.iii	23.c.iii	tolerance of the geosynthetic liner to expected differential settlement;						1					4	Full Compliance	NOEF Geosynthetic Liner cover System Plan dated 31Oct2022. Section 4.6 details how the tolerance of the geosynthetic liner is expected to be monitored for differential settlement performance including method and frequency of monitoring. Section 4.6.1 outlines that oedometer testing has demonstrated that the maximum settlement of the layer of the geosynthetic liner should be limited to 8mm and at this level of movement the liner is capable of accommodating the movement without excessive stresses developing.	

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Authorisation Co	mpliance Workb	oook - Operator			ъ			Ş							Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Condition/Requirement	iovernance/General	Ion-mineral Waste Aanagement)pen Pit/Undergroun Vorkings	ailings Storage Facilit	Vater Management nd Storages	Verburden mplacement Facilitie	xploration	Vaterways (including iver diversion)	ing Bong Loading acility	Scor	Compl e Lev		Evidence 2023	Comments 2023
		veracity of cover longevity predictions;	G	Z 2	0 5	F	<i>ō</i>	Ош	Ú)	> =	<u>в щ</u>	г	Т	Т	NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022. Section 4.8 details how evaluation of design basis and performance monitoring	Section 4.8 also discusses how the cost, ease of replacement and possible improvements if they become available are considered. Sections 4.4 and 4.5 also discuss how the effect of plant roots and burrowing biota
23.c.iv	23.c.iv							1				4	Full Com	mpliance	instrumentation are monitored for consistency, accuracy, sensitivity and longevity. "ultimately, longevity predictions come from modelling of the slope and NOEF behaviour, both mechanical (slope stability), erodibility (cover sequence and vegetative cover models), and thermodynamic models (internal temperatures)."	
		likely long-term maintenance requirements.													NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022.	
23.c.v	23.c.v							1				4	Full Com	npliance	Section 4.3 details how exposure of the liner to the sun or ongoing erosion or material property variations can impact upon stability and details the method and frequency of monitoring as described in Table 22. Section 4.4 describes how established vegetation needs to be routinely monitored including aspects such as biodegradation and root penetration and what predicative maintenance models will need to be implemented.	
															While there is a focus on maintenance monitoring, there is limited information relating to what the maintenance methods to be implemented include.	
		Include reporting of trial results and monitoring outcomes:														
23.d	23.d							1					Refer t condi	to sub litions		
															NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022. Correspondence between Operator and DITT relating to Geosynthetic Liner Testing	Future item. Due prior to 12 November 2025.
23.d.i	23.d.i	within three years from the submission of the plan;						1				4	Full Com	mpliance	Plan. Operator has presented partial results for rehabilitation trials, as the trials are ongoing.	
		every three years thereafter, to the relevant independent panel and the Community Reference Group for review, and shall be													Correspondence between Operator and DITT relating to Geosynthetic Liner Testing Plan.	Future item. Due prior to 12 November 2025.
23.d.ii	23.d.ii	audited by the Independent Monitor. The Operator must provide a written response to the Department, if review from the relevant panels and Community Reference Group require matters to be addressed;						1				N/A	Not App	plicable		Independent panel and Community Reference Group was not established in the audit period.
		must be used to inform the AMP and closure planning for the mine.													NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022.	
23.d.iii	23.d.iii		1					1				4	Full Com		Section 1.1 of the Liner Plan states: "It is intended that the results from testing, modelling and analysis in this plan will be used to finalise the detailed design for the NOEF cover system, and inform the Adaptive Management Plan (AMP) and closure planning for the Mine."	
		The NOEF geosynthetic liner cover system plan, once approved by the Department, must be implemented by the Operator.														Future item.
23.e	23.e		1					1				N/A	Not App	plicable		The Operator advised that the plan has not been approved by the Department yet and that a revised plan is being submitted to the Department of Climate Change, Energy, the Environment and Water and will likely be submitted to DITT for review/approval at that time also.
		Within five (5) years of the date of authorisation of the Overburden Management Project, the Operator must submit a strategy to the														Future item. Five years from 13Nov2020.
24	24	Department that details the long-term disposal management of tailings into the mine pit void, submerged under a suitable depth of pit water. The plan must:	1		1	1						N/A	Not App	plicable		The Operator has commenced early work planning on this strategy.

Authorisation Co	mpliance Workl	pook - Operator			pun	ility		ties		- Bu					Evidence 2023	Comments 2023
		Condition/Requirement	Governance/Gener	Non-mineral Waste Management	Open Pit/Undergroi Workings	Tailings Storage Fac	Water Managemen and Storages	Overburden Emplacement Facili	Exploration	Waterways (includii river diversion)	Bing Bong Loading Facility	Sco	ore	Compliance Level		
24.a	24.a	include strategies on the tailings reprocessing and assessment of residual chemical contaminants that may likely impact on meeting the requirements of Condition 16;	1			1						Ŋ	I/A	Not Applicable		Future item. Five years from 13Nov2020.
24.b	24.b	be reviewed by the relevant independent panel.	1			1						N	I/A	Not Applicable		Future item. Five years from 13Nov2020.
25	25	Once approved by the Department, the strategy developed in accordance with Condition 24 must be used to develop a plan five (5) years prior to cessation of mining, for approval by the Department. Any requirement to vary the approved disposal strategy or plan must be:	1									N,	I/A	Not Applicable		Future item. Condition triggered by condition 24, which is not until required until five years from 13Nov2020.
25.a	25.a	applied for in writing to the Minister;	1									N	I/A	Not Applicable		Future item. Condition triggered by condition 24, which is not until required until five years from 13Nov2020.
25.b	25.b	based on leading practice and site conditions;	1									N	I/A	Not Applicable		Future item. Condition triggered by condition 24, which is not until required until five years from 13Nov2020.
25.c	25.c	supported by the relevant independent panel;	1									N	I/A	Not Applicable		Future item. Condition triggered by condition 24, which is not until required until five years from 13Nov2020.
25.d	25.d	notified to the NT EPA in accordance with Condition 15.	1									N	I/A	Not Applicable		Future item. Condition triggered by condition 24, which is not until required until five years from 13Nov2020.

Authorisation Col 5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	oook - Operator Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility Water Management	and Storages Overburden	Emplacement racinties	exploration Waterways (including	river diversion)	Bing Bong Loading Facility	S	Score	Compliance Level	Evidence 2023	Comments 2023
26		Within 12 months of date of authorisation of the Overburden Management Project, the Operator must review and synthesise all available and relevant information to submit a revised water monitoring plan (surface water and groundwater) to the Department for review, ensuring the plan is capable of identifying and quantifying impacts of mining activities on the environmental values and beneficial uses of the McArthur River.	1							1			4	Full Compliance	Group Meeting Minutes August 2022. Water Management Plan 13May2022. Correspondence between Operator and DITT related to Water Management Plan Update. EMR 2020-2021 Section 6 dated 31Aug2021. Section 6 of the EMR 2020-2021 states "This section provides a holistic review of	(synthesised plan). Request was made by Operator to DITT via letter before the audit period stating "MRM kindly requests that the Department endorse the revised submission date of 13 May 2022 for the Condition 26 Water Management Plan.", which was to align this timeframe with the 18 month time of condition 16 related to loads monitoring. Refer to technical group working meeting Aug2022 that states "DITT verbally accepted the revised due date of 13 May for submission of loads plan required by condition 26. DITT to provide formal acceptance of the revised due date. Refer to technical group working meeting from Mar2022 that confirms the request for extension of time was pending a formal acceptance by DITT.
27	27	The plan required under Condition 26 must:												Refer to sub conditions		Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
27.a	27 .a	allow for assessment of compliance with Condition 16 and include sufficient detail to inform/develop/update the AMP;	1							1			4	Full Compliance		Due to time extension in condition 26, this condition was applicable on 13May2022. This condition is marked as completed in the Authorisation dated 17May2023.
27.b	27.b	at a minimum:												Refer to sub conditions		This condition is marked as completed in the Authorisation dated 17May2023.
27.b.i	27.b.i	quantify loads of lead and zinc entering the McArthur River each year;								1			4	Full Compliance		

Authorisation Com	pliance Workbo	pok - Operator														
5 May 2022	18 June 2021 Authorisation (Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility	Scor	Comp Lev	oliance vel	Evidence 2023	Comments 2023
27.b.ii	27.b.ii	quantify impacts to water quality and trends in groundwater to determine that objectives and targets are being met, including the effectiveness of source control to reduce loads to as low as is reasonably practicable;								1		4	Full Com	mpliance	Water Management Plan dated 13May2022. Section 4.6.2 of the WMP states: "The key objectives of the groundwater quality performance monitoring program are: • Identification of adverse or unexpected trends in groundwater quality that may harm the receiving beneficial uses and community values". WMP 2.5.5.1 states "Sources of contaminants include seepage and associated loads to groundwater from mining infrastructure (e.g. TSF, NOEF and water storages), which have the potential to influence groundwater levels and quality." WMP 2.5.5.2 states "The model simulates groundwater responses to mining operations, closure and post-closure conditions. Sources of elevated contaminants were also simulated within the model. Details of the model setup, calibration, predictions and review process are provided below." TARP process in AMP related to water levels sets performance criteria to demonstrate targets are being met. However, groundwater quality is not detailed.	Due to time extension in condition 26, this condition was applicable on 13May2022. This condition is marked as completed in the Authorisation dated 17May2023. OBS: The WMP could be enhanced by incorporating an evaluation of effectiveness of source control to reduce loads to as low as is reasonably practicable. OBS: Confirmation of groundwater, water quality objectives and targets being met could be enhanced by considering the development and incorporation of a TARP for groundwater water quality into the WMP and AMP.
27.b.iii	27.b.iii	develop appropriate future trigger values for waterways on the mine site and the McArthur River in accordance with the ANZECC Guidelines. In the interim, the trigger values in the most current WDL shall be used;								1		4	Full Com	npliance	Water Management Plan dated 13May2022. The Water Management Plan and WDL provide water quality performance criteria. The AMP provides trigger values.	Due to time extension in condition 26, this condition was applicable on 13May2022. This condition is marked as completed in the Authorisation dated 17May2023. The Operator advised "Ten of the water quality site-specific guideline values (SSGVs) recommended in the Condition 28 report were accepted and prescribed by the administering authority as site-specific trigger values (SSTVs) in MRM's amended Waste Discharge Licence 174-13. MRM continues to monitor, investigate and report against the site-specific trigger values as conditioned in the latest version of the WDL. The WDL 174 site-specific trigger values also form the basis of a number of Trigger Action Response Plans in the Mine's Adaptive Management Plan. See Table 8 of AMP-E (May 2022). This further demonstrates how guideline values from the Condition 28 report have been implemented by MRM in day to day operations."
27.c	27.c	be prepared in consultation with the NT EPA;	1							1		3			Water Management Plan dated 13May2022. Correspondence between Operator and DITT relating to Water Management Plan. Conditions 16+17 - DITT Mining Officer Notes Jan2023. Correspondence between DEPWS and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT stated "Additionally, MRM has sought an extension to the consultation timeframe of VOA 0059 Condition 27c) to 31 July 2022 to enable consultation to be expanded to include the NT EPA (in addition to that previously completed with the Department of Environment, Parks and Water Security [DEPWS])." The DITT Mining Officer notes had for Nov2022 that DITT had determined that NT EPA did need to be consulted. The notes indicated that in Dec2022 the Operator presented at an NT EPA meeting. No evidence has been provided showing that NT EPA had been consulted prior to the initial submission of the WMP or by the extension date requested of 31Jul2022.	the addition of organic matter as a parameter for the monitoring program to explain some findings the inclusion of certified reference material for laboratory analysis, which would be used to give confidence that the analysis is accurate." OBS: Comments from the NT EPA should be considered for incorporation into the
27.d	27.d	be prepared in consultation with the relevant independent panel;	1							1		N/A	Not App	plicable		No independent technical panels, required under Condition 21, have been set up.

Authorisation Co	mpliance Workbo	ok - Operator														
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation C	Condition/Requirement	Governance/General	Von-mineral Waste Vlanagement	Open Pit/Underground Norkings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including iver diversion)	Sing Bong Loading	Facility	Score	Compliance Level	Evidence 2023	Comments 2023
27.e	27.e	once approved by the Department, be implemented by the Operator;	1							1			N/A	Not Applicable	Weekly Water Quality Memo - 19th to 21st February 2023. Weekly Water Quality Memo - 5th and 14th February 2023. 2022/23 Annual Site Water Balance for the McArthur River Mine Water Balance Forecast Report dated 28Jul2023. Surface Water Monitoring Report 2022/2023 dated 5Jul2023. Annual Groundwater Report 2022/2023 dated Jun2023. Aquatic Fauna Monitoring Early Dry Season dated 23May2023. Aquatic Fauna Monitoring Late Dry Season dated 23May2023. Freshwater Aquatic Macroinvertebrate Assessment dated 23May2023. Monitoring of Select Analytes in Fluvial Sediment and Aquatic Fauna dated 24May2023. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023. 2022/23 Site Water Balance for the Bing Bong Loading Facility dated 17Aug2023. Surface Water Monitoring Report 2022/2023 dated 5Jul2023. MRM TWG Meeting Minutes Jan2023. Conditions 16+17 - Mining Officer Notes Jan2023. The Mining Officer notes had for Jan2023 "DITT advised MRM at TWG that condition 16 has been satisfied, and letter from delegate to follow." No formal approval of the plan has occurred. However, implementation is evident from the evidence provided.	Future item. No formal approval of the plan has occurred. The Operator advised "The performance triggers, for monitoring programs such as natural surface water quality and fluvial sediment quality, outlined in the WMP were actioned during the reporting period through the Trigger Action Response Plans in the Mine's Adaptive Management Plan. See Table 8 of AMP-E (May 2022) for evidence of the Trigger Action Response Plans. The water classification scheme described in the Mine's WMP was tracked on a routine basis during the reporting period for key storages through the circulation of an internal weekly water quality memorandum." Examples of the memorandums have been provided.
27.f	27.f	be subject to consultation with the relevant independent panel in the event that the plans requires updating (e.g.to maintain the currency of the monitoring network);	1							1			N/A	Not Applicable		No independent technical panels, required under Condition 21, had been set up at the time of the last Water Management Plan update.
27.g	27.g	ensure results of the program:												Refer to sub conditions		
27.g.i	27.g.i	are reported annually to the Department;	1							1			4	Full Compliance	Water Management Plan 13May2022. Sections 4.6.1 and 4.6.3 include reference to annual assessment of groundwater performance indicator bores and the complete groundwater monitoring dataset, respectively with reporting in the EMR. Section 5 refers to contingency measures and states "Management measures will be reported in the EMR". The plan does not explicitly require results of the program to be reported annually to DITT.	OBS: The WMP should be updated to incorporate the requirement to ensure results of the program: • are reported annually to the Department • are audited by the Independent Monitor every three years • be published on the Operator's website.
27.g.ii	27.g.ii	are audited by the Independent Monitor every three years;	1							1			4	Full Compliance	Water Management Plan dated 13May2022. AMP Version E 2022 dated May2022. Section 8.1 of the AMP states: "The Independent Monitor is required to review the AMP every three years in accordance with NT EPA Assessment Report." However, there is no reference to independent monitor auditing required in the WMP.	OBS: Refer to Condition 27.g.i.
27.g.iii	27.g.iii	be published on the Operator's website.	1							1			4	Full Compliance	Water Management Plan dated 13May2022. There is no reference in the WMP to the requirement to publish results of the program on the Operator's website.	OBS: Refer to Condition 27.g.i.

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5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Undergroun Workings	Tailings Storage Facili Water Management	and Storages Overburden Emplacement Faciliti	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility	Scor	Compliance Level		
28		Within 18 months of date of authorisation of the Overburden Management Project, the Operator must submit a research and investigation program to the Department for review that establishes the concentration of mine-derived contaminants at which chronic and acute impacts to biota of relevance to the McArthur River system occur using recognised and accepted eco-toxicological testing, and:	1						1		4	Full Complianc	Correspondence between Operator and DITT relating to Condition 28 Submission – Ecotoxicology Research and Investigation Program (before audit period). Correspondence between DITT and Operator relating to VOA 0059 Condition 28 – Ecotoxicology research and investigation program. Correspondence between DITT and Operator relating to Auth 0059 Condition 28 - MRM Ecotox research and investigation program. The Operator submitted the Ecotoxicology Research and Investigation Program on 25Oct2021 and DITT accepted and approved the Ecotoxicology research and investigation program 9Aug2022.	and this is considered compliant.
28.a	28. a	the results of this program must be integrated with other relevant programs, monitoring programs and management plans;	1						1		4	Full Complianc	Ecotoxicology Research and Investigation Program. The Operator submitted the Ecotoxicology Research and Investigation Program on 25Oct2021. Correspondence between Operator and DITT relating to Condition 28 Submission – Ecotoxicology Research and Investigation Program states "the following amendments to the WDL site-specific trigger values for the McArthur River have been sought with DEPWS" and "MRM's Adaptive Management Plan (AMP) is directly linked to the site-specific trigger values detailed in the WDL, and would	
28.b	28.b	the plan once approved by the Department must be implemented by the Operator.	1						1		4	Full Complianc	The Operator submitted the Ecotoxicology Research and Investigation Program on 25Oct2021 and DITT accepted and approved the Ecotoxicology research and investigation program 9Aug2022.	Cobalt and Thallium before the audit period. The Operator advised "Ten of the water quality site-specific guideline values (SSGVs) recommended in the Condition 28 report were accepted and prescribed by

Authorisation Co	mnliance Workh	nook - Operator														
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility	Sc	core	Compliance Level	Evidence 2023	Comments 2023
29		By 13 May 2022 the Operator must provide to the department a monitoring program that provides improved understanding of aquatic ecosystems in the McArthur River from changing water flows, levels and quality. The program must:	1							1			4	Full Compliance	Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to Draft Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Aquatic Ecology Management Plan EPBC ACT APPROVAL 2014/7210 NOVEMBER 2022 (AEMP) 13Nov2022	Aquatic Ecology Monitoring Plan Rev 1 and 2 were submitted to DITT. Note the June 2021 Authorisation had different wording of the following that has not been audited as it was not triggered: Within 18 months of date of authorisation of the Overburden Management Project, the Operator must submit an aquatic ecosystem monitoring program to the Department for review that provides improved understanding of aquatic ecosystems in the McArthur River from changing water flows, levels and quality, including available dry season habitat. The program must: a. assess impacts of the mine on water levels in refuge pools/waterholes, upstream and downstream of the mine, including in the McArthur River diversion channel; b. assess impacts of the mine on water quality in refuge pools/waterholes in the dry season; c. assess impacts of the mine on the health of aquatic biota in the McArthur River using non-lethal sampling methods; d. be designed to be integrated with requirements of the AMP consistent with Condition 45; e. once approved by the Department, be implemented by the Operator.
29.a		be consistent with the aquatic ecology monitoring and management plan required under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) Approval 2014/7210;								1			4	Full Compliance	Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) 13Nov2022. Correspondence between Operator and DITT relating to McArthur River Mine – Draft Aquatic Ecology Management Plan. Correspondence between Operator to DITT relating to Aquatic Ecology Management Plan. Section 1.3 of the AEMP states: "The purpose of the AEMP is to formalise MRM's monitoring and management strategy for aquatic ecology, and outline the key components of surface water monitoring. Consistent with those outlined in EPBC Approval 2014/7210 and the NT EPA Assessment Report 86 (NT EPA, 2018)"	Aquatic Ecology Monitoring Plan Rev 1 and 2 were submitted to DITT.
29.b		include monitoring of relevant parameters at appropriate frequencies to allow for implementation of applicable Trigger Action Response Plans (TARPs) included in the Adaptive Management Plan (AMP);								1			4	Full Compliance	Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Aquatic Ecology Management Plan EPBC ACT APPROVAL 2014/7210 NOVEMBER 2022 (AEMP) 13Nov2022. Correspondence between Operator and DITT relating to Draft Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Section 8 of the AEMP states: "The monitoring program summary also details the Trigger Action Response Plans (TARPs) for each monitoring program. TARPs are implemented by MRM to manage potential adverse environmental conditions, mitigate environmental impacts, inform mitigation options where required and to assess performance against overarching environmental objectives."	Aquatic Ecology Monitoring Plan Rev 1 and 2 were submitted to DITT.
29.c		be implemented by the Operator, once approved by the department.								1		N	N/A	Not Applicable	Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Aquatic Ecology Management Plan EPBC ACT APPROVAL 2014/7210 NOVEMBER 2022 (AEMP) 13Nov2022. Correspondence between Operator and DITT relating to Draft Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Aquatic Fauna Monitoring Early Dry Season dated 10Jan2023. Aquatic Fauna Monitoring Late Dry Season dated 23May2023. MRM TWG Meeting Minutes dated 25Jan2023. DITT approved verbally at the TWG on 25Jan2023 but it is not approved by DITT.	Future item. No formal approval of the plan has occurred. Aquatic Ecology Monitoring Plan Rev 1 and 2 were submitted to DITT. The Operator advised that the Aquatic Ecology Monitoring Plan Rev 2 is being reviewed by an independent third party (as required by EPBC Act approval) and will be updated based on any comments and DCCEEW comments and will then be resubmitted to DCCEEW and DITT. The Aquatic Ecology Management Plan (Rev 2) has not yet been approved by the Department. The Operator advised "The performance triggers outlined in the Aquatic Ecology Management Plan were actioned during the reporting period through the Trigger Action Response Plans in the Mine's Adaptive Management Plan. See Table 8 of AMP-E (May 2022) for evidence of the Trigger Action Response Plans."

Authorisation Co	mpliance Workb	ook - Operator														
5 May 2022	18 June 2021 Authorisation	Condition/Requirement	iovernance/General	Von-mineral Waste Vanagement	Open Pit/Underground Vorkings	ailings Storage Facility	Vater Management ind Storages	Overburden Implacement Facilities	:xploration	Vaterways (including iver diversion)	sing Bong Loading acility	2000	Score	Compliance Level	Evidence 2023	Comments 2023
30		At all times, the Operator must conduct works consistent with the Northern Territory Aboriginal Sacred Sites Act 1989 and valid AAPA certificate. All conditions of the AAPA certificate must be complied with (including but not limited to NOEF height restrictions), and evidence produced to demonstrate compliance, when requested by the Minister.	1	22			e e	1	E				4	Full Compliance	boundaries dated 1Jan2023.	The Operator advised that the fleet management system contains GPS navigation and alerts if waste rock is mis-placed, and that full details were provided in the 2022 Waste Rock Audit.
31		The Operator must not disturb or encroach within 5m of archaeological site MRM4, until a design of the NOEF is agreed in writing by the Department. Consultation between the Operator and Minister for Arts, Culture and Heritage must be undertaken prior to seeking endorsement of the design.	1					1					4	Full Compliance		The Operator advised that ground disturbance permit checks are undertaken against MRM4.
32	32	Within six months of date of authorisation of the Overburden Management Project, the Operator must provide a report to the Minister, and AAPA or the Minister for Arts, Culture and Heritage (where relevant) that demonstrates the consultation process undertaken or provide a plan to the Minister that details consultation activities and timeliness to identify and engage with appropriate custodians and traditional owners with an interest in land that would be or maybe affected by the Overburden Management Project.	1					1					4	Full Compliance	Correspondence between General Manager and Minister for Primary Industry and Fisheries related to submission of a report for this condition (before the audit period). Cultural Heritage Management Stakeholder Engagement Report 14Feb2021.	This condition is marked as completed in the Authorisation dated 17May2023.

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Authorisation Co	mpliance Workb	oook - Operator	eral	ste	round	-acility	ent	cilities		guipr	ρū				Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/Gen	Non-mineral Was Management	Open Pit/Underg Workings	Tailings Storage F	Water Managemand Storages	Overburden Emplacement Fac	Exploration	Waterways (inclu river diversion)	Bing Bong Loadin Facility	, in the second	Score	Compliance Level		
33		Within 12 months of date of authorisation of the Overburden Management Project, the Operator must develop or revise and submit to the Department for review an existing air quality plan that monitors sulfur dioxide emissions at an appropriate location between the NOEF and sensitive receptors determined in consultation with NT EPA.	1					1					4	Full Compliance	(Nov2021). Correspondence between NT EPA and Operator Re: Proposed sulfur dioxide monitoring location (Recommendation 19 of Assessment Report 86) (before the audit period). Air Quality Management Plan dated 10ct2021.	
34	34	The air quality monitoring plan required under Condition 33 must include:												Refer to sub conditions		The Operator advised that there had been no changes to the plan in the audit period.
34.a	34.a	objectives, locations, frequency of monitoring, trigger values and reporting commitments to manage and protect any potential air quality risk to human health outside of the mineral lease;	1					1					4	Full Compliance	Air Quality Management Plan dated 10ct2021. Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021). The AQMP includes objectives, locations, frequency of monitoring and reporting commitments. The AMP (rather than the AQMP) does include a TARP (hence trigger values) for sulphur dioxide but not for depositional dust monitoring or the high volume air sampling. DITT advised that this condition is "related to PAF combustion and SO2 release only" so only the sulphur dioxide trigger values are required. DITT approval letter August 2022 states that the plan was assessed as meeting the requirements of conditions 33, 34 and 35 regarding the AQMP.	Response Plans (TARPs). This detail can be found in the Adaptive Management Plan (MRM, 2021a)." The AQMP does not include trigger values or reporting requirements, other than
34.b	34.b	evidence of consultation with the NT EPA to be provided at the time of the plan submission;	1					1					4	Full Compliance	Correspondence between Operator and DITT relating to Updated AMP & AQMP (November 2021). Correspondence between NT EPA and Operator relating to Proposed sulfur dioxide monitoring location (Recommendation 19 of Assessment Report 86) (before the audit period). Correspondence between Operator and DITT relating to Adaptive Management Plan & Air Quality Management Plan Submission. Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021). DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 33, 34 and 35 regarding the AQMP.	This condition is marked as completed in the Authorisation dated 17May2023.

Authorisation Co	mpliance Workb	ook - Operator			Þ	₹		S							Evidence 2023	Comments 2023
	18 June 2021 Authorisation Condition No.	Condition/Requirement	overnance/General	Von-mineral Waste Vanagement	Open Pit/Undergroun Workings	ailings Storage Facili	Nater Management ind Storages	Overburden Emplacement Facilitie	:xploration	Naterways (including iver diversion)	sing Bong Loading acility	s	Score	Compliance Level		
34.c	34.c	once approved by the Department, be implemented by the Operator.	1					1					4	Full Compliance	Environmental Monitoring Schedule Rev 3 dated 25Oct2022. Monthly SO2 reports (online). Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (Nov2021). Photo: SO2 Van Installed undated. Photo: SO2 van finished undated. Photo: Image 1013 undated. Photo: Image 1021 undated. Photo: Image 1024 undated. Photo: Image 1053 undated. Photo: Image 1055 undated. Photo: Image 1065 undated. DITT approval letter August 2022 states that the plan was assessed as meeting the requirements of conditions 33, 34 and 35 regarding the AQMP.	Approval was obtained on 15Aug2022. Implementation of the approved AQMP is assessed under Schedule D condition 6.c. The Operator advised "MRM is in the process of moving the SO2 Van to the new location. The new concrete pad has been built, and the monitoring equipment will be moved to the new location as soon as possible."
35	35	The results of the air quality plan for each reporting frequency must be:												Refer to sub conditions		
35.a	35.a	made available on the Operator's website. Initial monitoring results to be reported within 6 months of the plan being accepted by the Department or an alternative timeframe as agreed in writing with the Department;	1					1					4	Full Compliance	Sighted real time data and monthly reports on Operator's website 21Sep21 (before the audit period) and after the audit period including date for the audit period.	
35.b	35.b	incorporated where relevant in the AMP.	1					1					4	Full Compliance	Appendix B - Air Quality Management Plan dated 1Oct2021. Correspondence between DITT and Operator relating to MRM Amended Adaptive Management Plan (November 2021) - approval.	The updated AMP was submitted to the Department, the submission email and subsequent approval from the Department is provided.
36		Within 24 months of date of authorisation of the Overburden Management Project, the Operator must submit a monitoring and management plan to the Department for review that manages risks of metal toxicity from human consumption of aquatic fauna obtained from the McArthur River. The plan must:								1			4	Full Compliance	2022 (AEMP) dated 12Nov2022.	The Operator advised "The Aquatic Ecology Management Plan was updated (Rev 2 - November 2022) to address Conditions 36 and 37 of Variation of Authorisation 0059 and submitted to the Department on 12 November 2022." The Aquatic Ecology Management Plan (Rev 2) is pending approval by DITT.
36.a	36.a	determine if aquatic fauna obtained from any reach of the McArthur River, that may be impacted by the mine's operations, is safe to eat;								1			4	Full Compliance	Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) dated 12Nov2022. Section 5.1 of the AEMP states: "Assessed against the Trigger Action Response Plan (TARP) in the Adaptive Management Plan (Version D) to identify if tissue concentrations are within permitted concentrations under the Food Standards Code and to determine if additional controls or management actions are required to reduce tissue concentrations"	

Authorization 6		Consister Consister														
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5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	3overnance/General	Von-mineral Waste Management	Open Pit/Undergroun Norkings	ailings Storage Facilit	Nater Management Ind Storages	Overburden Emplacement Facilitie	xploration	Naterways (including iver diversion)	sing Bong Loading acility	ı	Score	Compliance Level	Evidence 2023	Comments 2023
		include demonstrated evidence of consultation with NT EPA;													Correspondence between Operator and DITT relating to Draft Aquatic Ecology	This condition is marked as completed in the Authorisation dated 17May2023.
36.b	36.b									1			4	Full Compliance	Management Plan. Correspondence between Operator and DITT "MRM has submitted the AEMP to the NT Environment Protection Authority (EPA) in accordance with Condition 36b and understands the NT EPA is currently seeking feedback on the AEMP from the Chief Health Officer. MRM plans to discuss the AEMP with the NT EPA during a meeting to be held in mid-December 2022. Should any updates to the plan be required, MRM will resubmit the plan to DITT along with further evidence to satisfy the requirements of Condition 36b." There was no evidence provided that the Aquatic Ecology Management Plan included demonstrated evidence of consultation with NT EPA.	No OFI has been prepared as this condition is marked as complete in the Authorisation dated 17May2023. OBS: Comments from the NT EPA should be considered for incorporation into the Aquatic Ecology Management Plan.
36.c	36.c	detail public reporting of the monitoring results, including at appropriate locations in the Borroloola region;								1			4	Full Compliance	Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) dated 12Nov2022. Section 9 of the AEMP states: "The results of the aquatic ecology monitoring programs described in Section 4 are reported annually to the DITT through the MRM Environmental Monitoring Report (EMR), required under the Mining Management Act 2001. The EMR is made publicly available on the NT EPA website. Specialist consultants, on behalf of MRM, engage Borroloola and surrounding stakeholders both formally and informally as opportunities arise. This includes the presentation of results from the metals in aquatic fauna monitoring program at local community events once a year."	This condition is marked as completed in the Authorisation dated 17May2023.
36.d	36.d	include provisions for implementation and maintenance of signage at waterways at the MRM site in accordance with the requirements of Condition 62 until the risk of contamination from consumption of this aquatic fauna is demonstrated to be acceptable by the Department;								1			4	Full Compliance	Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) dated 12Nov2022. Section 6.2 of the AEMP states: "Signage will remain in place until the risk of contamination from human consumption of aquatic fauna obtained from the McArthur River is accepted by DITT. It is noted that the Northern Territory Government Department of Health (DoH) has previously released publications regarding safe consumption of fish and molluscs (NT DoH, 2018), recommending that consumption be limited due to metals such as mercury and lead found in fish from all over Australia. Therefore, it is recognised that human consumption of fish and molluscs in the region should be limited, regardless of potential impacts from the Mine."	
		once approved by the Department, be implemented by the													MRM TWG Meeting Minutes Jan2023.	Future item. No formal approval of the plan has occurred.
36.e	36.e	Operator.	1							1			N/A	Not Applicable	DITT approved verbally at the TWG on Jan2023 but it is not officially approved.	
37		Within 24 months of date of authorisation of the Overburden Management Project, the Operator must submit a plan to the Department for review that outlines a monitoring program for management of Largetooth Sawfish. The plan must:								1			4	Full Compliance	Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) 13Nov2022. Correspondence between Operator and DITT relating to Draft Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. The Operator outlines that the Aquatic Ecology Management Plan was updated (Rev 2 - November 2022) to address Conditions 36 and 37 of Variation of Authorisation 0059 and submitted to DITT on time. This plan is yet to be approved by DITT.	The Operator advised "The Aquatic Ecology Management Plan was updated to address Conditions 36 and 37 of Variation of Authorisation 0059 and submitted to the Department." The Aquatic Ecology Management Plan (Rev 2) is pending approval by DITT.
37.a	37.a	include a sampling strategy for Largetooth Sawfish that is non- lethal;								1			4	Full Compliance	Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) 13Nov2022. Section 3 of the AEMP states: "Captured Freshwater Sawfish are implanted with acoustic transmitter tags which are individually coded and cattle style tags for easy identification on recapture."	This condition is marked as completed in the Authorisation dated 17May2023.

Authorisation Cor	mnliance Workh	nook - Operator															
5 May 2022	18 June 2021 Authorisation	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	Facility	Score	Cc	ompliance Level	Evidence 2023	Comments 2023
37.b	37.b	include details of parameters and criteria, from which the results could be used to define specific (measurable and time-bound) performance indicators to abate a significant decline in Largetooth Sawfish movement;								1			4	Ful	II Compliance	Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) 13Nov2022. Section 3 of the AEMP states: "When a tagged animal is within approximately 250 m of an acoustic receiver, a date, time, and tag number is recorded. This data allows for the location of the individual animal to be tracked throughout the catchment, and can determine residence time periods within certain pools or time taken to migrate between acoustic receivers. This data can be used to determine whether the Diversion Channel is suitable for fish movement."	This condition is marked as completed in the Authorisation dated 17May2023.
37.c	3 7.c	include trigger levels for investigation and implementation of management measures;								1			4	Ful	ll Compliance	Aquatic Ecology Management Plan EPBC Act Approval 2014/7210 November 2022 (AEMP) 13Nov2022. Section 4 of the AEMP states: "For the purpose of defining trigger levels to identify potential impacts on the <i>P. pristis</i> population resulting from MRM operations, the use of static criteria (e.g. percentage change in abundance) is not considered appropriate in this instance. This is due to the mobile nature and naturally low abundance of this species (generally one individual per site), whereby they can remain undetected or be absent at a number of sites where they have been previously reported, resulting in significant variation between years. As a result, trigger levels are assigned to each of the identified performance indicators consistent with MRM's AMP. The Level 2 trigger value specified indicates that performance is still within the range of relevant guidelines, predictions and/or conditioned limitations, however, investigation is necessary as to whether preemptive mitigation and/or management measures are required. The Level 3 trigger indicates that performance is outside of the expected or predicted levels, and further investigation and review of current mitigation and management measures is required."	
37.d	37.d	once approved by the Department, be implemented by the Operator.								1			N/A	No	ot Applicable	MRM TWG Meeting Minutes Jan2023. DITT approved verbally at the TWG Jan2023 but it is not officially approved.	Future item. No formal approval of the plan has occurred.
38		Within six months following the establishment of the required panels and groups in accordance with Condition 21, the Operator must:													Refer to sub conditions		Future item. Panels and groups not set up.
38.a	38.a	develop environmental objectives for a Care and Maintenance Plan in consultation with the relevant Independent Panels, CRG, custodians and traditional owners;	1										N/A	No	ot Applicable		Future item. Panels and groups not set up.
38.b	38.b	submit this to the Department for review.	1										N/A	No	ot Applicable		Future item. Panels and groups not set up.
39	39	Within five years of date of authorisation of the Overburden Management Project, the environmental objectives arising from Condition 37 must be used to develop a Care and Maintenance Plan in consultation with the Department.	1										N/A	No	ot Applicable		Future item. Within five years from 13 Nov2020. Note June 2021 Authorisation refers to condition 38 and this condition is also referring to condition 38 in the Authorisation dated 17May2023.
40	40	The Operator must facilitate an independent third-party assessment of the security for rehabilitation of disturbances resulting from authorised activities in the approved MMP that is consistent with requirements under Conditions 10, 11 and 12, to the satisfaction of the Department, and every 3 years thereafter if the security has been re-calculated or adjusted.	1										N/A	No	ot Applicable		Not triggered until 3 years after the 13Nov2020. However, independent third-party assessments of the security have been done as per the evidence included for conditions 10 to 13.
41	41	The Operator, consistent with Condition 40, must:													Refer to sub conditions		

Authorisation Co	npliance Workb	oook - Operator			-	>		10							Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facilit	Water Management and Storages	Overburden Emplacement Facilitie	Exploration	Waterways (including river diversion)	Bing Bong Loading	racinty	Score	Compliance Level	Evidence 2023	Comments 2025
41.a	41. a	commission a qualified person to review the security amount whose appointment is accepted by the Minister;	1										N/A	Not Applicable		Not triggered because condition 40 isn't triggered until 3 years after the 13Nov2020. However, independent third-party assessments of the security have been done as per the evidence included for conditions 10 to 13. OBS: Requirement to get the independent third-party reaccepted for review of servitive before due date of 13 Nov. 2023.
41.b	41.b	ensure that the security is reviewed and delivered to the Department within six months of acceptance of the qualified person.	1										N/A	Not Applicable		Not triggered because condition 40 isn't triggered until 3 years after the 13Nov2020. However, independent third-party assessments of the security have been done as per the evidence included for conditions 10 to 13. OBS: DITT should consider changing the wording of this condition if reapproval of the qualified person to undertake the independent third-party assessment of the security is not required.
42	42	For every approved MMP and MMP amendment, the Operator must provide a revised copy of the approved document that removes commercially sensitive information, includes an overview and environmental section, and is suitable for publication on the Department's website, or provide written approval to make the complete documents publicly accessible.	1										N/A	Not Applicable	Correspondence between Operator and DITT relating to 2020 Mining Management Plan - Public Version (before audit period).	The Operator confirmed there were no new MMPs in the audit period. Independent Monitor confirmed that the January 2020 MMP with commercially sensitive information removed is on DITT's website (checked 22Sep21 and 26Jul2022). Emails provided between Operator and DITT show that the January 2020 MMP including an overview and environmental section, with commercially sensitive information removed, was provided to the DITT.
43		The Operator must assist, as required, the Department to establish and operate a Community Reference Group (CRG).	1										4	Full Compliance	Correspondence between Operator and DITT relating to Technical Working Group Meeting Minutes July 2022. July 2022 working group minutes demonstrated that Community Reference Group is a line item in the discussions and these are tracked fortnightly. The Operator outlines that the Community Reference Group is not yet established. Evidence of assistance is provided in the form of recent technical working group minutes.	The Operator understood that the chair had been appointed and DITT were in the process of appointing the members in the audit period. The CRG held their inaugural meeting on-site 27Jul2023 which was a familiarisation
44		Within 18 months of date of authorisation of the Overburden Management Project, the Operator must undertake a synthesis of all environmental monitoring programs (Condition 26) that assess impacts of mining activities on the environmental values and beneficial uses of the McArthur River, in accordance with NT EPA's overarching environmental outcome. The revised monitoring programs must:	1							1			4	Full Compliance	EMR 2020-2021 section 6 discussion SPR model and monitoring results conclusions and recommended action (synthesis of all monitoring programs). Synthesis was undertaken under condition 26 and DITT has approved that and marked this condition as completed in the Authorisation dated 17May2023.	The Operator believes that discussion in the EMR fulfills this requirement and verbal agreement was obtained from DITT. Correspondence between Operator and DITT states "The Adaptive Management Plan (AMP), which includes the Water Management Plan (WMP), was submitted to DITT on 31 January 2020. The plans were prepared in consideration of Condition 44, and using knowledge acquired through previous annual Operational Performance Reports. The AMP has since been updated a number of times, most recently in October 2021 (submitted to DITT 13 November 2021). The WMP has also since been updated, most recently in March 2021 (submitted to DITT 31 March 2021). MRM submitted the 2020-2021 Environmental Monitoring Report (EMR) on 31 August 2021 []. The EMR provides a synthesis of all environmental monitoring programs implemented at the Mine, including water monitoring programs. Trend analysis was undertaken, considering key elements of the source-pathway-receptor conceptual site model, as detailed in Section 6 and the Executive Summary. Each monitoring program is explored in detail within the EMR, including methods of data collection and revisions made to the program over the reporting period of 1 May 2020 to 30 April 2021 (see Sections 3 and 4)." This condition is marked as completed in the Authorisation dated 17May2023.

Authorisation Col 5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	ook - Operator Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility	Score	Complia Leve	nce	Evidence 2023	Comments 2023
44.a	44. a	use outputs generated for review and synthesis of water monitoring programs, as part of addressing Condition 26;	1							1		4	Full Compl		Correspondence between Operator and DITT relating to Variation of Authorisation 0059 - Condition 44. EMR 2020-2021 dated 31Aug2021. A response from DITT to an email the Operator sent at the beginning of the audit period is pending.	The Operator believes that discussion in the EMR fulfills this requirement and verbal agreement was obtained from DITT. Correspondence between Operator and DITT states "MRM submitted the 2020-2021 Environmental Monitoring Report (EMR) on 31 August 2021 []. The EMR provides a synthesis of all environmental monitoring programs implemented at the Mine, including water monitoring programs. Trend analysis was undertaken, considering key elements of the source-pathway-receptor conceptual site model, as detailed in Section 6 and the Executive Summary. Each monitoring program is explored in detail within the EMR, including methods of data collection and revisions made to the program over the reporting period of 1 May 2020 to 30 April 2021 (see Sections 3 and 4)." This condition is marked as completed in the Authorisation dated 17May2023.
44.b	44.b	demonstrate how all monitoring data collected under various monitoring programs and management plans were considered and synthesised (e.g. conceptual site models, trend analysis);	1							1		4	Full Compl		Correspondence between Operator and DITT relating to Variation of Authorisation 0059 - Condition 44. EMR 2020-2021 dated 31Aug2021. A response from DITT to an email the Operator sent at the beginning of the audit period is pending.	The Operator believes that discussion in the EMR fulfills this requirement and verbal agreement was obtained from DITT. Correspondence between Operator and DITT states 'MRM submitted the 2020-2021 Environmental Monitoring Report (EMR) on 31 August 2021 []. The EMR provides a synthesis of all environmental monitoring programs implemented at the Mine, including water monitoring programs. Trend analysis was undertaken, considering key elements of the source-pathway-receptor conceptual site model, as detailed in Section 6 and the Executive Summary. Each monitoring program is explored in detail within the EMR, including methods of data collection and revisions made to the program over the reporting period of 1 May 2020 to 30 April 2021 (see Sections 3 and 4)." This condition is marked as completed in the Authorisation dated 17May2023.
44.c	44.c	be incorporated in the AMP.	1							1		4	Full Compl		Correspondence between Operator and DITT relating to Variation of Authorisation 0059 - Condition 44. EMR 2020-2021 dated 31Aug2021. A response from DITT to an email the Operator sent at the beginning of the audit period is pending.	The Operator believes that discussion in the EMR fulfills this requirement and verbal agreement was obtained from DITT. Correspondence between Operator and DITT states "The conclusions of the 2020-2021 EMR and other annual reports have been incorporated into the latest the AMP for the Mine. Trigger-Action-Response Plans (TARPs) integrate trend analysis into the level system, triggering actions based on identified trends in monitoring data. TARPs have been developed based on the source-pathway-receptor conceptual site model, allowing undesirable conditions to be identified at all stages. Section 5 of the AMP provides further details of how the various monitoring programs have been synthesised and enable more effectively identification and management of impacts at their source. Additionally, Section 8 of the AMP provides for ongoing review and update as necessary. Therefore, MRM considers that the review of its environmental performance and adequacy of the environmental management plans required by Condition 44 of the VOA is addressed by the EMR." This condition is marked as completed in the Authorisation dated 17May2023. OBS: The AMP and associated WMP should be updated annually if the EMR identifies a change is required.
45	45	Within 18 months of date of authorisation of the Overburden Management Project, the Operator must submit an AMP to the Department:	1									4	Full Compl		DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	Submitted to DEPWS as part of WDL requirement and was submitted to DITT.
45.a	45.a	The AMP must include the following key elements:											Refer to conditio			

Authorisation Co	maliance World	ook Operator														
5 May 2022 Authorisation	18 June 2021	ook - Operator Condition/Requirement	Governance/General	Von-mineral Waste Vlanagement	Open Pit/Underground Workings	railings Storage Facility	vater Management and Storages	Overburden Emplacement Facilities	Exploration	Naterways (including iver diversion)	Sing Bong Loading acility	Sco	ore	Compliance Level	Evidence 2023	Comments 2023
45.a.i	45.a.i	clear, measurable environmental objectives for all significant environmental risks and potential impacts;	1						3			4	4	Full Compliance	EMR 2020-2021 dated 31Aug2021. A response from DITT to the email Operator to DITT dated 2May2022 is pending.	Submitted to DEPWS as part of WDL requirement on 1Oct2021 and was submitted to DITT. For additional evidence refer to the Independent Monitor's Review of the Adaptive Management Plan (July 2023). This condition is marked as completed in the Authorisation dated 17May2023.
45.a.ii	45.a.ii	measureable performance indicators to show that objectives are on target to be met;	1									4	4		DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. Measurable performance indicators are included as triggers for actions in AMP Revision E, Tables 7 and 8, defining how they are measured. These performance indicators are linked to the relevant key environmental objective. For additional evidence refer to the Independent Monitor's Review of the Adaptive Management Plan (July 2023).	Submitted to DEPWS as part of WDL requirement and was submitted to DITT. This condition is marked as completed in the Authorisation dated 17May2023.
45.a.iii	45.a.iii	pre-determined triggers to warn of potential for performance indicators to be exceeded, as informed by monitoring;	1									4	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. The TARP includes three separate environmental performance trigger levels to evaluate monitoring results. The trigger levels for monitoring of water, air quality and rehabilitation are listed in AMP-Revision E, Table 8.	
45.a.iv	45.a.iv	realistic and achievable contingency interventions to maintain performance indicators if triggers are consistently exceeded;	1									4	4		DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. A list of contingency measures to describe what would occur in response to the TARP process are included in AMP-Revision E, Table 9. Possible measures range from simple actions to complex processes. Summary detail is provided relating to how and when these contingency measures will be implemented and a justification that the potential measures are realistic and/or achievable. The AMP states the most appropriate contingency measure/s would be selected based upon the TARP trigger and requires the effectiveness of implementation of the contingency measure/s to be reported in the EMR. For additional evidence refer to the Independent Monitor's Review of the Adaptive Management Plan (July 2023).	Submitted to DEPWS as part of WDL requirement and was submitted to DITT. This condition is marked as completed in the Authorisation dated 17May2023.

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Authorisation Col 5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	ook - Operator Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Failings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility	\$	Score	Compliance Level	Evidence 2023	Comments 2023
45.a.v	45.a.v	clearly defined management measures/actions that are capable of being implemented in a timely way to meet performance indicators and environmental objectives;	1										4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. The management measures/actions are defined in the Management Plans and Monitoring Programs. The Monitoring Programs are listed in AMP-Revision E, Table 6: Environmental Monitoring Program Summary. They include monitoring sites, monitoring parameters/analytes and monitoring frequency. The Management Plans include measures/actions, however, the timelines associated with measures and actions will depend upon the potential TARP trigger level. The TARP investigation process will determine the contingency measure/s required and timeframes for implementation. For additional evidence refer to the Independent Monitor's Review of the Adaptive Management Plan (July 2023).	This condition is marked as completed in the Authorisation dated 17May2023. OBS: Further detail on potential contingency measures timelines for the implementation of management actions in Table 9 (AMP Revision E) should be provided.
45.a.vi	45.a.vi	monitoring in accordance with relevant Recommendations in NT EPA Assessment Report 86 to determine whether management measures are effective and to inform the need for adjustments to management measures or need for alternatives;	1										4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. There is a stated intention that the AMP will be reviewed annually as part of the Operator's environmental performance reporting. However, a review to evaluate the effectiveness of management measures/actions to inform the need for adjustments or alternatives is implied but not specifically required in AMP Section 1 – Review and Update. For additional evidence refer to the Independent Monitor's Review of the Adaptive Management Plan (July 2023).	This condition is marked as completed in the Authorisation dated 17May2023. OBS: Incorporate further information on the processes to assess the effectiveness of the Monitoring Programs and enable adaptive adjustment, including further information on the interactions between the annual EMR and the AMP.
45.a.vii	45.a.vii	a continual feedback system to inform appropriate actions to be initiated when triggered and environmental objectives are always being met;	1										4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. There is a stated intention that the AMP will be reviewed annually as part of the Operator's environmental performance reporting. The ongoing AMP review and revision process is illustrated in AMP-Revision E, Figure 19. A review of the AMP may be triggered by internal or external feedback, including recommendation from the EMR, TARP level 3, Independent Monitor, Independent Expert Panel review or learnings made through the iterative adaptive management process.	This condition is marked as completed in the Authorisation dated 17May2023.
45.a.viii	45.a.viii	continual development of new management actions as required based on knowledge gained from experience at the site and elsewhere across industry.	1										4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. There is a stated intention that the AMP will be subject to ongoing annual reviews as part of the Operator's environmental performance reporting (refer to Condition 45, vii).	This condition is marked as completed in the Authorisation dated 17May2023.

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5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Undergroun Workings	Tailings Storage Facilit	Water Management and Storages	Overburden Emplacement Facilitie	Exploration	Waterways (including river diversion)	Bing Bong Loading	בפרוונא	Score	Compliance Level		
45.b	45.b	The AMP must be reviewed by the Independent Monitor or an appropriately qualified, independent third party, and updated with inputs from the CRG (once established under Condition 43);	1										4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Independent Monitor's Review of the Adaptive Management Plan dated July 2023. Review of the Adaptive Management Plan final dated July 2023 is the Independent Monitor's review of the AMP (Revision E) undertaken within the three year period since the Independent Monitor's review of the initial AMP (Revision 0), completed in June 2020. An independent review of AMP (Revision C) commissioned by MRM was conducted by the University of Queensland, Sustainable Minerals Institute (dated March 2021) and provided to DITT.	Note CRG not established in the audit period. OBS: The condition does not appear to require the AMP to be updated based on the Independent Monitor review.
45.c	45.c	all review findings and CRG input requirements are to be provided to the Department for approval.	1										4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. Review of the Adaptive Management Plan dated July 2023 was submitted by the Independent Monitor to DITT. The CRG is not yet established. It is anticipated that the CRG will be established in 2023, and that it will be available to review future AMP revisions.	Submitted to DEPWS as part of WDL requirement and was submitted to DITT. OBS: Refer to Condition 45.b.
46	46	Unless agreed otherwise in writing by the Department, the AMP must:												Refer to sub conditions		Submitted to DEPWS as part of WDL requirement and was submitted to DITT.
46.a	46.a	clearly set out the required management objectives and performance indicators;	1									I	4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Management objectives and performance indicators are clearly set out, refer to Condition 45.a above.	Submitted to DEPWS as part of WDL requirement and was submitted to DITT.
46.b	46.b	provide clarity on the triggers for changes to management actions, and responsibility and evidentiary basis for decision-making;	1										4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. The trigger levels for changes to management actions for monitoring of water, air quality and rehabilitation are listed in AMP-Revision E, Table 8: TARP process. The evidentiary basis and scope for a TARP level 3 investigation is provided in AMP-Revision E, Section 5.2.1. Where contingency measures are to be implemented, the responsibility for decision-making is to be consultative between the Operator and relevant regulators as outlined in AMP-Revision E, Section 5.2.1.	
46.c	46.c	establish the timeframe for initiation of certain actions if triggers are exceeded, including decisions to discontinue an activity and clarify responsibility and evidentiary basis for decision-making;	1										3	Part Compliance (High)	Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021) - approval. DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. The TARP process identifies timeframes for some, but not all, actions if triggers are exceeded. The Contingency Plan, AMP-Revision E, Section 7, outlines some reporting timeframes in the event a key environmental objective is not being met.	Submitted to DEPWS as part of WDL requirement and was submitted to DITT. OFI: Incorporate more detail on the timeframes for action/s if TARP triggers are exceeded.

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5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/Gen	Non-mineral Was Management	Open Pit/Undergi Workings	Tailings Storage F	Water Managemo and Storages	Overburden Emplacement Fac	Exploration	Waterways (inclu river diversion)	, Bing Bong Loadin, Facility	Score	Compliance Level		
46.d	46.d	establish a process for adjusting triggers that includes the regulator;	1									4	Full Compliance	Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021) - approval. DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. The AMP states it will be subject to ongoing reviews and revisions, and would be updated in consultation with appropriate regulatory authority. The review and update process for revision of the AMP including consultation with regulatory authorities is illustrated in AMP-Revision E, Figure 19.	Submitted to DEPWS as part of WDL requirement and was submitted to DITT.
46.e	46.e	establish transparent monitoring, reporting and review requirements;	1									3	Part Compliance (High)	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. The AMP establishes monitoring, reporting and review requirements but does not specifically describe how these will be designed and presented to be transparent.	Submitted to DEPWS as part of WDL requirement and was submitted to DITT. OFI: Incorporate more information to outline how transparency in monitoring, reporting and review is provided to show openness and accountability.
46.f	46.f	establish processes to achieve transparency and stakeholder engagement in AMP design and implementation that includes NT EPA, DAWE and CRG;	1									4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. Section 8.1 of the Adaptive Management Plan, states that following the Independent Monitor's review, where the outcome of the review results in a material change of the plan, the AMP will be made available to DITT, NT EPA, DAWI and CRG.	
46.g	46.g	set out the mechanism for periodic review by Independent Monitor, which must not exceed a frequency of every three years;	1									4	Full Compliance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP version E dated May2022. The AMP states the Independent Monitor is required to review the AMP every three years. Refer to AMP-Revision E, Section 8.1, Independent Monitor Review.	Submitted to DEPWS as part of WDL requirement and was submitted to DITT.
46.h	46.h	be provided to the Department for re-approval in the event that any material changes are made to the AMP.	1									4	Full Compliance	AMP Version D dated 1Dec2021. AMP Version E dated 5May2022. Correspondence between Operator and DITT relating to Updated AMP & AQMP (November 2021). Correspondence between DITT and Operator relating to Updated AMP & AQMP (November 2021) (approval of amended AMP (version D)). Correspondence between Operator and DITT relating to Water Management Plan Update. The Operator outlines that no material changes to the AMP have occurred and been submitted to DITT for re-approval after 13 May 2022.	The Operator submitted AMP version E to DEPWS, not DITT. DITT advised that the difference between version D and version E is in relation to the Water Management Plan (to address requirements of the WDL) and one minor change to the AMP. The Operator did not submit a singular document entitled "AMP_version E" to DITT, rather they advised DITT of the changes. Similarly the Water Management Plan changes were not material to DITT. Version AMP-E (May 2022) of the Mine's Adaptive Management Plan is the latest version.
47	47	The Operator must provide written notice to the Minister and to the NT EPA (under clause 14A of the Environmental Assessment Administrative Procedures 1984) where trends indicate performance indicators and environmental objectives will not, or are unlikely to be, met by implementing the AMP.	1									N/A	Not Applicable	EMR 2022-2023 dated 31Aug2023. The AMP states the Operator will provide written notice to DITT where trends indicate performance indicators and environmental objectives will not, or are unlikely to, be met by implementing the AMP, refer to AMP-Revision E, Section 5.2.1, Level 3 Investigation Report and Assessment Against Environmental Objective. Each section of the EMR 2022-2023 has a section titled 'Monitoring Results and Trends'.	The Operator has not identified any trends where indicators or objectives would not be met and they would be identified through the AMP TARP process.
Independent oversigh Appointment of ICE	t														

Authorisation Co	mnliance Workh	ook - Operator															
5 May 2022	18 June 2021 Authorisation	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	Facility	Score	c	Compliance Level	Evidence 2023	Comments 2023
48	48	The Operator must appoint an Independent Certifying Engineer (ICE) to:													Refer to sub conditions		The Operator advised "GHD remain the nominated ICE for the current reporting period." Understanding is that this applies to TSF, NOEF and water storages.
48.a	48.a	warrant and accept both the design and construction works, without limitation on responsibility;	1			1		1					3	Pa	art Compliance (High)	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. No evidence was provided to demonstrate that the ICE warrants and accepts both the design and construction works specifically without limitation on responsibility for the NOEF or TSF in the audit period.	The requirement of "without limitation on responsibility" has been removed from this condition in the Authorisation dated 17May2023. No OFI has been prepared given the requirement of "without limitation on responsibility" has been removed from this condition in the Authorisation dated 17May2023.
48.b	48.b	be present during all phases of construction where required in the approved MMP (including at hold points) and oversee and certify the works that they meet design specifications;	1			1		1					3	Pa	art Compliance (High)	Correspondence between ICE and Operator relating to TSF Construction Works, May 2022 - April 2023, Engineer of Record Oversight. NOEF ITPS. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. Correspondence between ICE and Operator relating to WMD Upgrade Works, May 2022 - April 2023, Engineer of Record Oversight. Correspondence between ICE and Operator relating to Northern Overburden Emplacement Facility (NOEF) Operations, May 2022 - April 2023, Independent Certifying Engineer Oversight. Correspondence between ICE and Operator confirms the audit period and in accordance with "Clause 48" of the Authorisation "Works undertaken during this period included the continued buttress expansion along the TSF Cell 2 southern embankment in accordance with the GHD design and the technical specification (refer GHD report McArthur River Mining Pty Ltd, TSF Cell 2 Intermediate Buttress Design Report, Revision 0). No TSF construction raise works were completed during this period." Correspondence between ICE and Operator indicates that the ICE maintained a site Prescence for the NOEF and states that they cannot currently certify the works meet design specifications for 2022 or 2023 as ITPs are outstanding. ICE certification for 2022 and 2023 NOEF works remains outstanding. Spot checks were done on the NOEF ITPs and it was found that 5 out of the 6 documents inspected contained gaps where for hold points, the Inspection Signatures and Dates were signed by the MRM representative but not by the ICE. The Operator has provided evidence dated 19Sep2023 relating to ICE oversight for the dam safety upgrade works being undertaken on the WMD during the period 1 May 2022 to 30 April 2023.	throughout 2022". OFI: Ensure the ICE progressively prepares monthly construction reports for the NOEF.
48.c	48.c	approve re-commencement of construction at defined hold points;	1					1					3	Pa	art Compliance (High)	2022 - April 2023, Engineer of Record Oversight. Spot checks were done on the NOEF ITPs and it was found that 5 out of the 6 documents inspected contained gaps where for hold points, the Inspection	The Operator advised that ICE design reviews and site instructions and ITPs for the NOEF are provided. No TSF lifts/raises were completed during the audit period. No TSF lifts/raises were completed during the audit period. Buttressing work ITPs will be collated with the construction report when construction is due to be completed at the end of the year. The Operator advised "Minimal works occurred on the CE Bravo Sump during the audit period, although Extraction Tower construction did occur in the sump during the audit period. The ICE oversaw the construction of the CE Bravo Sump and Extraction Tower works. The ITP for the CE Bravo Extraction Tower works has been provided, noting that it has not yet been finalised as the construction works are still underway." OFI: Ensure the ICE sign off all hold points.

Authorisation Co	mpliance Workb	ook - Operator			pun	ility	.	ties		g _L						Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	Governance/Gener	Non-mineral Waste Management	Open Pit/Undergroi Workings	Tailings Storage Fac	Water Managemen and Storages	Overburden Emplacement Facili	Exploration	Waterways (includi river diversion)	Bing Bong Loading Facility	(Accepted)	Score	C	ompliance Level		
48.d	48.d	approve any material changes to the design during construction;	1			1		1					4	Fu	ull Compliance	NOEF Technical Query - Temporary Rock Lining of Eastern Perimeter Drain dated 26Sep2022 approved by ICE 12Oct2022. NOEF Technical Query - Clay Lining of NW Levee Tie In dated 27Sep2022 approved by ICE 12Oct2022.Letter ICE to Operator subject: Northern Overburden Emplacement Facility (NOEF), Independent Design Review of North-West Stage Wedge Zone Construction dated 22Jul2022. NW Stage Wedge Construction Memo dated 28Jun2022. The two technical queries and a memo provided include material changes that are signed off by the ICE.	The Operator advised that no TSF design changes were proposed during the audit period. In relation to NOEF, material design changes are generally completed between Stages, and are therefore approved in the Stage Design Report. While mostly minor, design changes during construction are handled via the Technical Query system, with some examples provided.
48.e	48.e	verify any monitoring equipment/structure installed or to be installed as part of the construction as specified in the relevant detailed designs remains functional at the conclusion of the construction works;	1			1		1					4	Fu		ITP - North West Cell 3C, 2022_ITP_Basal CCL - Excavate to top of Subgrade, Basal CCL and Benign Rock Fill dated May2022 included VWP installation on 16Jul2022. An ITP was provided as evidence that the ICE verified monitoring equipment installed as part of construction.	
48.e.i	48.e.i	in the event such equipment becomes non-functional, then replacement or an ICE approved alternative must be implemented by the Operator;	1			1		1					N/A	N	ot Applicable		No equipment became non-functional.
48.f	48.f	agree in writing, if the Operator wish to appoint an Operator's project manager/resident engineer as an onsite representative, and agree in writing that this does not diminish the ICE's responsibility or liability for the project;	1			1		1					3	Pa	irt Compliance (High)	Site Instructions and Notes Construction On-site witnessing for NOEF Projects works dated 23Dec2022. Site Instructions and Notes Construction On-site witnessing for NW Stage Works dated 14Jun2022. Site Instructions and Notes Construction On-site witnessing for NW Stage Works dated 27May2022. The Operator advised that relevant works relating to the TSF were overseen by the ICE; no delegation of authority took place during the reporting period. The Operator advised related to the NOEF "There were a few instances where the ICE appointed Construction Sciences as an onsite representative. Evidence has been provided for these cases in the form of NOEF Project Construction Site Witness Form signed by the ICE." The Site evidence provided demonstrated that the ICE has agreed to the appointment of Construction Sciences as a "site-based resource to witness all visual aspects of the construction" and while evidence also stated what GHD would continue to perform various activities, there is no evidence that the ICE agreed in writing that " this does not diminish the ICE's responsibility or liability for the project" and therefore this is a part-compliance high.	

Authorisation Co	mplian <u>ce Workb</u>	ook - Operator														
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	Facility	Score	Compliance Level	Evidence 2023	Comments 2023
48.g	48.g	on completion of construction, provide a certified "as-constructed" construction report detailing:	1			1							4	Full Compliance	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Correspondence between DITT and Operator relating to Condition 48.g - SPROD & SEPROD Construction Report. Correspondence between DITT and Operator relating to Clarifying compliance requirements for perimeter runoff dams. The Operator outlines that the EPROD construction was completed in 2022. An ICE certified 'as-constructed' construction report was submitted to DITT via email/Sharefile in Dec2022. The Operator advised that there was no other construction completed during the audit period. No TSF lifts/raises were completed during the audit period. Buttressing work ITPs will be collated with the construction report when construction is due to be completed at the end of the year. Construction of the WMD spillway was ongoing in the audit period so no construction report was required in the audit period. No evidence was provided for a construction report for any new sumps. however CE Bravo will be included in the NOEF annual construction report.	Department on 5 December 2022, per the documents provided with this submission." The works on SPROD (lining and spillway) appear to have been undertaken in 2019
48.g.i	48.g.i	all the works undertaken;	1			1		1					4	Full Compliance	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022.	
48.g.ii	48.g.ii	evidence of:												Refer to sub conditions		
48.g.ii.a	48.g.ii.a	hold-point sign-offs;	1			1		1					4	Full Compliance	EPROD Construction & Commissioning Report dated Oct2022. Hold point sign offs are listed in Appendix E of the SPROD Construction & Commissioning Report. There was no evidence of hold point sign-offs included in the EPROD Construction Report dated Nov2022. Conversely there was evidence to suggest that some hold points may not have been adequately signed-off. EPROD Construction Report Appendix D – GHD Construction Correspondence included various SITE INSTRUCTIONS & NOTES – EPROD. Specifically one dated 8Sep2018 stated "Quality documentation, including ITPs, hold points and construction methodologies, have not been provided." and "Drainage works have commenced in the northern section of the dam. It was observed that an area has been excavated, geofabric and Megaflo laid, and backfilled with aggregate. As per the hold point schedule in the specification: "Installation of under drainage pipework prior to backfilling". This hold point has been missed, and is required to ensure proper cleanout of the trench (that may settle), no issues with the trench walls, and that the pipe has been placed appropriately. "	
48.g.ii.b	48.g.ii.b	testing carried out (including but not limited to field tests, laboratory tests and statistical tests);	1			1		1					4	Full Compliance	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Testing (including certification of testing) is listed throughout both reports.	
48.g.ii.c	48.g.ii.c	acceptance criteria applied and compliance of the test results with the acceptance criteria;	1			1		1					4	Full Compliance	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Section 5 of the SPROD Construction & Commissioning Report details acceptance criteria and Appendix D discusses the results of testing. Sections 2, 4 and 5 of the EPROD details acceptance criteria and Appendix D discusses the results of testing.	

Authorisation Co 5 May 2022	mpliance Workb 18 June 2021	ook - Operator	eneral	/aste	arground	e Facility	ment	Facilities		cluding	ling				Evidence 2023	Comments 2023
	Authorisation	Condition/Requirement	3overnance/G	Von-mineral W Vanagement	Open Pit/Unde Workings	railings Storag	Nater Manage and Storages	Overburden Emplacement I	Exploration	Naterways (in: iver diversion)	Sing Bong Loac acility	, and a second	Score	Compliance Level		
48.g.ii.d	48.g.ii.d	where deviations to the plan have occurred, justification that demonstrates the design intent and performance of the structure has not been compromised.	1			1		1					4	Full Compliance	EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Section 2.6 of the SPROD Construction & Commissioning Report lists changes to design and the summary of those changes. Section 2.6 of the EPROD Construction Report lists changes to design and the summary of those changes.	
49		The Operator must ensure that the ICE holds appropriate public and professional indemnity insurance to cover the scope of works associated with the scope of work certified.	1										4	Full Compliance	NOEF Independent Certifying Engineer Role Proposal for Services McArthur River Mining Pty Ltd 18 June 2021 (3219254-PRO-0_NOEF ICE Proposal). Certificate of Placement – Public and Products Liability Policy provided is for 31May2023 to 31May2024. (Relevant after the audit period). Certificate of Placement – Professional Indemnity 1 December 2022 at 4.00pm to 1 December 2023 at 4.00pm (Relevant for the end of the audit period). The Operator advised "GHD maintains Public and Professional Indemnity insurances that are consistent with the levels stipulated in the MRM-GHD Umbrella Agreement UMB010— Consultancy Services. The Umbrella Agreement is included at the end of the NOEF ICE Proposal provided for Condition 48." This contract is dated 18Jun21 and therefore is relevant to the audit period. NOEF ICE Role Proposal for Services 18Jun2021 that appropriate public and professional indemnity insurance is required under the contract clause 12.1 (b). Public and Professional Indemnity insurances provided were evidence of insurance generally being held, although the evidence provided was not for the entire audit period.	professional indemnity insurance to cover the scope of works that covers the audit period.
Independent Tailings	Independent Tailing	zs Review Board														
50	50	The Operator must:												Refer to sub conditions		
50.a	50.a	convene an advisory board (Independent Tailings Review Board or ITRB);				1							4	Full Compliance	ITRB On-Site Meeting and Site Inspection Meeting Minutes dated 19Jan2023. Bruce Brown, David Williams, Tamie Weaver continue to be the ITRB members and were in attendance based on the meeting minutes dated 19Jan2023.	The ITRB attended site in January 2023.
50.b	50.b	ensure the ITRB:												Refer to sub conditions		
50.b.i	50.b.i	membership includes independent geotechnical, tailings, and groundwater specialists;				1							4	Full Compliance	ITRB On-Site Meeting and Site Inspection Meeting Minutes dated 19Jan2023. Bruce Brown, David Williams, Tamie Weaver continue to be the ITRB members and were in attendance based on the meeting minutes dated 19Jan2023.	The Operator advised that there had been no change to the ITRB in the audit period.

Authorisation Co	mpliance Workbo	ook - Operator														
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	raciiity	Score	Compliance Level	Evidence 2023	Comments 2023
50.b.ii	50.b.ii	meets regularly to advise on operation of the TSF and any future modifications to its design;				1							3	Part Compliance (High)	ITRB On-Site Meeting and Site Inspection Meeting Minutes dated 19Jan2023. TSF ITRB Site Visit Notes dated Jan2023. ITRB Meeting Presentation - dated Jan2023. Correspondence between Operator and ITRB relating to ITRB Document Review.Correspondence between ITRB internally cced and Operator relating to ITRB Review Requirements. The ITRB did not meet between April 2021 and January 2023. While the condition doesn't state a timeframe for meeting other than "regularly", it is reasonable to assume that the ITRB would review modifications to the design. Design changes related to buttresses were approved by the ICE based on the TSF Cell 2 Stage 7 Raise to RL 10063 m Construction Report and there is no mention of this construction report in the minutes of the ITRB meeting in Jan2023. Lack of evidence of ITRB review of the TSF Cell 2 Stage 7 Raise to RL 10063 m Construction Report is considered a part compliance. Construction was complete on the TSF Cell 2 Stage 7 Raise to RL 10063 m in Nov2021. This is a requirement of the Project Quality Plan Jul2021 and related to operation of the TSF which is part of this condition. The Operator advised that the Cell 2 Stage 7 Raise Construction Report will be part of a package provided to the ITRB, however, the Cell 2 Stage 7 Raise Construction Report is dated 2May2022 so given the time lapsed since then this is considered a part compliance. There is evidence that the Operator provided the TSF OMS Manual, Buttress expansion letter and intermediate buttress design report to the ITRB in Jan2023 and followed up with the ITRB in Sep2023 with a response that one member had reviewed the OMS Manual.	OFI: Provide evidence of ITRB review of Buttress Expansion Letter, Intermediate Buttress Design Report and Cell 2 Stage 7 Raise Construction report and the TSF OMS Manual (at least annually). OFI: Ensure that the ITRB meets annually.
50.b.iii	50.b.iii	is required to meet within 90 days from commencement of construction to allow sufficient time for review of subsequent modification to the TSF;				1							N/A	Not Applicable		There were no new TSF raises in the construction period. Next raise (Cell 2 Raise to RL10,064m and Cell 1 Raise to RL10,061m) is anticipated late 2023 and the 90 days will be relevant to the next audit period.
50.c	50.c	provide details of the members of the ITRB panel and meeting frequency to the Department for endorsement by the Department;				1							4	Full Compliance	ITRB On-Site Meeting and Site Inspection Meeting Minutes dated 19Jan2023. Correspondence between Operator and Department 30Oct2017 MRM DPIR Meeting with ITRB (before audit period). The ITRB members are Dr. Tamie Weaver, Prof. David Williams and Dr. Bruce Brown, which is consistent with the individuals listed in the Email Operator to Department 30Oct2017 MRM DPIR Meeting with ITRB. The Department advised the Independent Monitor in the 2020 audit that they had endorsed the members of the ITRB. There have been no changes in the audit period.	
50.d	50.d	together with the ICE, provide a written response to the satisfaction of the Department, in the event that future review of the designs by independent experts require additional matters to be addressed;				1							N/A	Not Applicable	The Operator outlines that no expert reviews of the TSF occurred within the audit period, nor were any design changes proposed.	Not applicable as review of the designs by independent experts has not occurred and the independent panels are not yet established.

Authorisation Co	mpliance Workbo	ook - Operator				`		10							Fulldamer 2022	Community 2022
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Vorkings	railings Storage Facility	Nater Management and Storages	Overburden Emplacement Facilities	Exploration	Naterways (including iver diversion)	3ing Bong Loading	acility	Score	Compliance Level	Evidence 2023	Comments 2023
50.e	50.e	ensure ITRB endorses any future modifications to the TSF in writing, with all ITRB review comments appropriately addressed for both construction and future use of the structure. This includes, but is not limited to:				1							3	Part Compliance (High)	ITRB On-Site Meeting and Site Inspection Meeting Minutes dated 19Jan2023. TSF ITRB Site Visit Notes dated 19Jan2023. ITRB Meeting Presentation - dated 18Jan2023. TSF - Operations, Maintenance and Surveillance Manual dated 08Sep2021 Correspondence between Operator and ITRB relating to ITRB Document Review. Correspondence between ITRB internally cced and Operator subject: Re: ITRB Review Requirements. TSF Operations and Maintenance Manual in section 4.4.1 "The ITRB shall meet and review annually as a minimum, and must consider when there is a change to the Consequence Category assessment, modifications to the design or operations of the structure or issues of concern noted in the annual dam safety inspections." The ITRB did not meet between April 2021 and January 2023. There is evidence that the Operator provided the TSF OMS Manual, Buttress expansion letter and intermediate buttress design report to the ITRB in January 2023 and followed up with the ITRB to ensure they had them in April 2023. With further correspondence to the ITRB also dated 28Aug23 with a response that one member had reviewed the OMS Manual.	
50.e.i	50.e.i	Studies and/or trials to inform future construction and/or operation of the structure;				1							N/A	Not Applicable		The Operator outlines that a tailings beach improvement trial (using amphibious screw-propelled vehicle and dozer) is underway. This trial has been discussed with the ITRB during the January 2023 meeting. A performance summary will be provided to the ITRB on completion of the trial for endorsement if a change to the existing beach methodology is proposed. The trial will conclude in the next audit period.
50.e.ii	50.e.ii	The TSF Operations, Maintenance and Surveillance (OMS) manual, including the Trigger, Action and Response Plan (TARP) is updated regularly to accommodate any relevant changes to the structure that may impact on its stability and performance.				1							2	Part Compliance (moderate)	TSF - Operations, Maintenance and Surveillance Manual dated 08Sep2021 Correspondence between Operator and ITRB relating to ITRB Document Review. Correspondence between ITRB internally cced and Operator relating to ITRB Review Requirements. TSF Operations and Maintenance Manual in section 4.4.1 "The ITRB shall meet and review annually as a minimum, and must consider when there is a change to the Consequence Category assessment, modifications to the design or operations of the structure or issues of concern noted in the annual dam safety inspections." The ITRB did not meet between April 2021 and January 2023 and did not review the OMS Manual in that time. The Operator outlines that Version 7 of the OMS Manual was implemented during the audit period. The Operator advised that the OMS Manual has been provided to the ITRB for review and endorsement prior to finalising. There is evidence that the Operator provided the TSF OMS Manual, Buttress expansion letter and intermediate buttress design report to the ITRB in January 2023 and followed up with the ITRB to ensure they had them in April 2023. With further correspondence to the ITRB also dated 28Aug23 with a response that one member had reviewed the OMS Manual.	
Waste Rock Managem		ment From the date of authorisation Non-benign Waste is to be														
51		permanently placed consistent with the approved MMP:												Refer to sub conditions		

Authorisation Cor	mpliance Workb	ook - Operator													
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	Condition/Requirement	Sovernance/General	Non-mineral Waste Management	Open Pit/Underground Workings	railings Storage Facility Water Management	and Storages Overburden Emplacement Facilities	Exploration	Naterways (including iver diversion)	Sing Bong Loading	acility	Score	Compliance Level	Evidence 2023	Comments 2023
51.a	51. a	above the 100 year ARI flood level, unless flood mitigation measures are provided consistent with the approved MMP and relevant Detailed Designs submitted to the Department in accordance with the conditions of this variation of Authorisation, with the exception of PAF(RE);					1					4	Full Compliance	NOEF North West Stage Foundation and Base Design Report version 4 dated	MMP states "A temporary 20 year ARI flood protection levee is planned to extend from EPROD to SEPROD in the south (Figure 16). Construction will be in accordance with the NOEF Construction and Design guidelines. The temporary 20 year ARI flood protection levee will be in place for a maximum of two wet seasons."
51.b	51.b	on a compacted clay liner (CCL) or low permeability material that satisfies the design objective in Condition 19 that slopes towards a Perimeter Runoff Dam (PROD) or an appropriately lined storage structure, as defined in Condition 58(a);					1					4	Full Compliance	ļ	18June2021 Authorisation referred to condition 20 rather than condition 19. The Independent Monitor believes that condition 20 was the correct reference.
51.c	51.c	PAF is emplaced in lift heights that minimises particle size segregation and creation of chimney structures, and must not exceed 7.5m taking into construction tolerances;					1					4	Full Compliance	ITPs ITPs describe Hauling and Dumping of a 7.5m thick PAF(HC)/MS-NAF layer and particle size of 0.2m under Acceptance Checklists and Criteria.	
51.d	51.d	PAF(RE) is emplaced in dedicated cells in lift heights that minimises particle size segregation and creation of chimney structures, but must not exceed 2m taking into construction tolerances;					1					4	Full Compliance	NOEF North West Stage Foundation and Base Design Report version 4 dated 20Jul2022. ITPs ITPs describe Hauling and Dumping of a maximum 2m thick PAF(RE) layer and particle size of 0.2m under Acceptance Checklists and Criteria.	

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Authorisation Co	npliance Workb	ook - Operator			T.	>		.,						Evidence 2022	Comments 2023
		Condition/Requirement	Governance/General	Von-mineral Waste Vanagement	Open Pit/Underground Workings	'ailings Storage Facility	Nater Management Ind Storages	Overburden :mplacement Facilities	xploration Waterways (including iver diversion)	, sing Bong Loading acility	:	Score	Compliance Level	Evidence 2023	Comments 2023
51.e	51.e	advection barriers of appropriate thickness and moisture condition are emplaced at suitable intervals that disrupt the formation of oxygen convection cycles;						1				4	Full Compliance	NOEF North West Stage Foundation and Base Design Report version 4 dated 20Jul2022. NW Stage Wedge Construction Memo dated 28Jun2022. ITPs ID#9 of the NW Stage Risk Assessment Table of the NW Stage Wedge Construction Memo outlines that: "Advection barriers around all nonbenign material limit further oxygen ingress." ITPs describes the placement of and thickness of the advection barriers, and also describes moisture condition by stating: "No moisture conditioning required".	
51.f	51.f	the ICE verifies the suitability of the PAF placement methodology with respect to particle size segregation and advection barriers;						1				4	Full Compliance	NOEF North East Alpha Stage Complete Design Report version 3 dated 23Feb2022. NOEF North West Stage Foundation and Base Design Report version 4 dated 20Jul2022. ITPS All ITPs are signed by the ICE (J. Castle).	
51.g	51.g	construction of the NOEF stages, as defined in Conditions 53 and 54 is undertaken in accordance with a valid AAPA certificate;						1				4	Full Compliance	AAPA Authority Certificate C2004/014 dated 30Jan2004. AAPA Authority Certificate C2004/084 dated 16Jun2004. Internal document 2023 McArthur River Mine NOEF Height Compliance. Internal document McArthur River Mine NOEF Height Compliance states: "The maximum height of the NOEF measured on the 12/04/2023 was RL: 10115.862m MRM Local Grid and 115.898m MGA. The nominal accuracy is expected to be +/-30mm. The NOEF surface was compared to the 2006 ALS LIDAR surface before rock was placed. The NOEF surface was found to be less than 80 metres above and compliant with AAPA conditions for proposed work or use. Note for reference that the Barramundi Dreaming maximum height is 10116.034 MRM local grid and 116.055 MGA."	
51.h	51.h	design of the NOEF is flexible to accommodate changes, if required, to comply with archaeological site MRM4 matters under Condition 31;						1				4	Full Compliance	January 2020 MMP The NOEF is already designed to leave the MRM4 area undisturbed, if approval is not granted. An example of the design accommodating MRM4 is that there is a temporary levee in between the NOEF and MRM4 in plans in case approval is not obtained to expand into the MRM4 area. Figure 14 of the January 2020 MMP shows the potential location of this optional levy.	The Operator advised that no approval has been received to construct on MRM4 in the audit period and they continue to stay out of that area.
51.i	51.i	in the event that future review of the designs or as-built structure by independent experts require additional matters to be addressed, the Operator together with the ICE must provide a written response to the satisfaction of the Department;						1				N/A	Not Applicable		The Operator advised that there has been no independent expert review of the NOEF designs or as-built structure during the audit period.
51.j	51.j	at mine closure, non-benign waste rock is encapsulated and fully contained within an engineered cover system consistent with the Overburden Management Project, or an alternative cover system endorsed by the relevant independent technical panels to the satisfaction of the Department.						1				N/A	Not Applicable		Future item. Mine closure is not relevant to the audit period.
Construction of CWNC		From the date of authorisation of the Overburden Management Project, the Operator is approved to construct, operate and maintain the following stages for permanent placement of Waste Rock in the NOEF:						1				4	Full Compliance	EMR 2022-2023 dated 31Aug2023. EMR 2022-2023 TABLE 6: WASTE DUMPING DURING THE REPORTING PERIOD show waste dumping only at the approved locations, which was the NOEF. This included 4.45 Mt of alluvium on the NOEF stockpiles (which is temporary and therefore not relevant to this condition). EMR 2021-2022 Section 2.4.2 also only included approved locations.	
52.a	52.a	West A, B, C and D;						1					-		Compliance scored under condition 52.
52.b	52.b	CW (alpha, bravo and charlie);						1					-		Compliance scored under condition 52.

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5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration Waterways (including		Score	Compliance Level	Evidence 2023	Comments 2023
52.c	52.c	CE (alpha and bravo);						1				-		Compliance scored under condition 52.
52.d	52.d	SE;						1		+		-		Compliance scored under condition 52.
52.e	52.e	NW;						1				-		Compliance scored under condition 52.
52.f	52.f	NE.						1		+				Compliance scored under condition 52.
32.1		The Operator must develop the NOEF Stages defined in Condition 52 in						1				-	ITPs	The Operator stated "The ICE considers that the designs presented are acceptable
53	53	accordance with Concept designs presented in the approved MMP.	1					1			4	Full Compliance	ITPs include PAF and PAF (RE) under Main activity.	and the construction specifications are appropriate and consistent with methods that have matured, following the construction of previous stages."
54	54	During construction of the NOEF, the Operator must ensure:										Refer to sub conditions		
54.a	54.a	engagement of the ICE consistent with Condition 48;						1			4	Full Compliance		Refer to condition 48 for further detail of compliance.
54.b	54.b	waste rock management requirements comply with Condition 51.						1			4	Full Compliance		Refer to condition 51 for further details of compliance.
												·		
Remaining Waste Roc		cock Management Facilities From the date of authorisation of the Overburden Management											Correspondence between Operator and DITT relating to Temperary Concentrate	
55		Project, temporary placement of non-benign waste is authorised for the following:										Refer to sub conditions	Correspondence between Operator and DITT relating to Temporary Concentrate Storage. Correspondence between Operator and DITT relating to RE: MRM Temporary Concentrate Storage - APPROVED.	
55.a	55.a	EOEF (except for PAF(RE));						1			N/A	Not Applicable		Operator advised that the EOEF has not had any placement of non-benign waste.
		stockpiles on NOEF, SOEF and WOEF;											EMR 2022-2023 dated 31Aug2023.	Operator advised that the SOEF and WOEF are no longer being used for placement
55.b	55.b							1			4	Full Compliance	EMR 2022-2023 states "Topsoil, clay, alluvial and LS-NAF (HC) materials were stockpiled in existing stockpile areas surrounding and within the NOEF footprint during the reporting period. These materials will be utilised later for various future foundation, NOEF and cover system construction activities."	and stockpiles were on the NOEF in the audit period.
55.c	55.c	ROM Pad;						1			N/A	Not Applicable		Operator advised that the ROM Pad is only used for ore.
33.0	33.0	any other leasting approved by Department in writing									N/A	Not Applicable	FBAD 2022 2022 dated 214.002022	Operator of sixed the Indonesidant Menitor that there are no other areas approved
55.d	55.d	any other location approved by Department in writing.						1			N/A	Not Applicable	EMR 2022-2023 dated 31Aug2023. EMR 2022-2023 states "Topsoil, clay, alluvial and LS-NAF (HC) materials were stockpiled in existing stockpile areas surrounding and within the NOEF footprint during the reporting period. These materials will be utilised later for various future foundation, NOEF and cover system construction activities."	Operator advised the Independent Monitor that there are no other areas approved by the Department in writing. The Independent Monitor did not find any other areas of waste placement in the EMR.
56		The Operator must ensure that non-benign wastes temporarily placed outside of NOEF have:										Refer to sub conditions		
56.a	56. a	suitable water management structure (e.g. drains and sumps) are in place to contain and manage poor quality drainage in accordance with the approved MMP;					1	1			N/A	Not Applicable	Correspondence between Operator and DITT relating to Temporary Concentrate Storage. Temporary Concentrate Storage Options dated 17Jan2023. Temporary Concentrate Stockpile option 1 - South Levee undated. Correspondence between Operator and DITT relating to Temporary Concentrate Storage. Correspondence between Operator and DITT relating to Temporary Concentrate Storage - APPROVED.	Operator advised that no non-benign wastes were temporarily placed outside of the NOEF. Ore concentrate remains on the ROM Pad but is not waste. The storage of bulk lead and zinc concentrate at the new temporary storage location on McArthur River Road commenced on 11Mar2023.
56.b	56.b	installed water diversion structures that allows segregation of mine- affected drainage from non-mine affected drainage;					1	1			N/A	Not Applicable		Operator advised that no non-benign wastes were temporarily placed outside of the NOEF. Ore concentrate remains on the ROM Pad but is not waste. The storage of bulk lead and zinc concentrate at the new temporary storage location on McArthur River Road commenced on 11Mar2023.
56.c	56.c	monitoring and management measures, in accordance with the AMP, are implemented to ensure environmental objectives defined in the approved MMP are satisfied;						1			N/A	Not Applicable		Operator advised that no non-benign wastes were temporarily placed outside of the NOEF. Ore concentrate remains on the ROM Pad but is not waste. The storage of bulk lead and zinc concentrate at the new temporary storage location on McArthur River Road commenced on 11Mar2023.
56.d	56.d	non-benign wastes are removed and managed at cessation of mining in accordance with the approved MMP;						1			N/A	Not Applicable		Future item as cessation of mining has not occurred.

Authorisation Co	mpliance Work	book - Operator			73			10							Evidence 2022	Commants 2022
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Von-mineral Waste Vanagement	Open Pit/Underground Workings	'ailings Storage Facility	Nater Management ind Storages	Overburden Emplacement Facilities	:xploration	Naterways (including iver diversion)	sing Bong Loading acility	ı	Score	Compliance Level	Evidence 2023	Comments 2023
56.e	56.e	in the event of unplanned closure, non-benign wastes are removed and managed in accordance with the approved MMP;					<i>-</i> 0	1				I	N/A	Not Applicable		Future item as there have been no unplanned closures.
56.f	56.f	oversight provided by ICE as per Condition 48.						1					N/A	Not Applicable		Operator advised that no non-benign wastes were temporarily placed outside of the NOEF. Ore concentrate remains on the ROM Pad but is not waste. The storage of bulk lead and zinc concentrate at the new temporary storage location on McArthur River Road commenced on 11Mar2023.
Ore Processing and N	Ore Processing and	Milling														
57	57	Surface water management infrastructure associated with the lead filtration facility at the Mine must be suitably designed and constructed to contain a 100 year ARI rainfall event.	1				1						N/A	Not Applicable		Future item. January 2020 MMP mentioned as future work. The Operator advised "Lead Filtration Facility is currently moving through the design process, construction is expected in Q2 2024."
58	58	From the date of authorisation of the Overburden Management Project, the Operator is authorised to expand the ore processing and associated milling and storage facilities in accordance with concepts and management systems detailed in the approved MMP including:	1											Refer to sub conditions		Gypsum Plant, Caustic Facility, Reagent Mixing Facility and Copper Mud Facility have proceeded and others have not.
58.a	58.a	ensuring the structures to be developed are suitably designed and constructed to allow management of poor quality drainage in accordance with the Water Management Plan that is generated from the construction and future operation of the structures;	1										4	Full Compliance	Extract from the WMP: McArthur River Mine 2021-22 Site Configuration and Water Management Infrastructure dated May2022. Extract from the WMP: Schematic of the 2021_22 - 2024_25 McArthur River Mine Water Management System dated May2022. The Operator has provided evidence of the location of the Reagent Mining Facility, Copper Mud Facility, Gypsum Plant, Lead Storage Facility and the expansion of the concentrate storage shed, which is within the defined catchment suitable to manage poor quality water in accordance with the Water Management Plan.	
58.a.i	58.a.i	construction and development of Gypsum Plant;	1										4	Full Compliance	2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023. Independent Monitor sighted the foundations installed June 2023 in a bunded area near the reverse osmosis plant. There is no reference to the Gypsum Plant in the EMR 2022-2023. No evidence has been provided relating to the design and construction in accordance with the WMP.	treat PbOx excess water to a suitable water quality before it re-enters the Mine water management system; and
58.a.ii	58.a.ii	construction and development of Caustic Facility;	1										4	Full Compliance	EMR 2022-2023 dated 31Aug2023. January 2020 MMP No reference to a Caustic Facility specifically was found in the January 2020 MMP, however it states "MRM plan to introduce NaOH (caustic) as a scrubbing medium for the PBOX process to replace Na2CO3) (soda ash). This will include a dedicated storage tank for high concentration NaOH (50%) and dedicated storage for low concentration NaOH (~2%), which is fed directly into the gas scrubbers." There is no reference to the Caustic Facility in the EMR 2022-2023. No evidence has been provided relating to the location and design and construction in accordance with the WMP.	The Operator has outlined that construction for the Caustic Facility is completed. Located in the mill area and runoff from that area is contained and managed. The Operator advised "These facilities are located within the mine levee wall and as such drainage during construction reports to the open pit or the nearest sump in accordance with the WMP."
58.a.iii	58.a.iii	construction and development of Reagent Mixing Facility;	1										4	Full Compliance	EMR 2022-2023 dated 31Aug2023. January 2020 MMP. The January 2020 MMP includes reference to the Reagent Mixing Facility proposed to be located immediately east of the Concentrator. There is no reference to the Reagent Mixing Facility in the EMR 2022-2023. No evidence has been provided relating to the location and design and construction in accordance with the WMP.	The Operator has advised that construction for the Reagent Mixing Facility is completed. The Operator advised "These facilities are located within the mine levee wall and as such drainage during construction reports to the open pit or the nearest sump in accordance with the WMP."

Authorisation Co	mpliance Work	book - Operator			75	>		10							Evidence 2023	Comments 2022
		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facilit ₎	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	Facility	Score	Compliance Level	Evidence 2023	Comments 2023
58.a.iv	58.a.iv	construction and development of Copper Mud Facility;	1										4	Full Compliance	EMR 2022-2023 dated 31Aug2023. The January 2020 MMP states "Copper mud will also be introduced as a substitute for copper sulphate pentahydrate. Copper mud is a by-product of the refining processes. The material will be leached to extract copper into solution where it will be used in the same way as the existing copper sulphate pentahydrate. A dedicated copper mud leaching facility is proposed to be constructed. There would be negligible change in risk to the environment as a result of this substitution. There is no reference to the Copper Mud Facility in the EMR 2022-2023. No evidence has been provided relating to the location and design and construction in accordance with the WMP.	accordance with the WMP."
58.a.v	58.a.v	construction and development of Lead Concentrate Storage Facility;	1										N/A	Not Applicable		Not constructed. If built, will be in the mill area and runoff from that area is contained and managed.
58.a.vi	58.a.vi	expansion of the concentrate storage shed and use of external hardstand area;	1										N/A	Not Applicable		Not constructed. If built, will be in the mill area and runoff from that area is contained and managed.
58.b	58.b	Wastes generated from the operation of the Gypsum Plant must be managed in accordance with Condition 63.	1										N/A	Not Applicable		Future item. Gypsum Plant has not been constructed.
Water Management a	and Storage															
59		Until the AMP (including Environmental Management Plans and sub- plans) is approved by the Department in writing, the Operator must prepare, review and include the following for each MMP and where appropriate each MMP amendment, a Water Management Plan which includes:					1			1			N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.a	59.a	modelling of surface water at and around the Mine;					1						N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.b	59.b	a whole of Mine water balance which takes account of the modelling of surface water;					1						N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.c	59.c	calibration of the modelling of surface water to confirm its accuracy;					1						N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.d	59.d	a written plan detailing how water at the Mine will be managed for the forthcoming wet season;					1						N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.e	59.e	a plan of actions which will be undertaken to reduce the risk of any releases from AMD storage structures;					1						N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
59.f	59.f	a plan of actions, including engineers' reporting schedules, which will be undertaken to ensure the structural integrity of all AMD storage structures;					1						N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.

Authorisation Co 5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	oook - Operator Condition/Requirement	Governance/General	Von-mineral Waste Vanagement	Open Pit/Underground Workings	Failings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Naterways (including iver diversion)	Sing Bong Loading acility	Score	Compliance Level	Evidence 2023	Comments 2023
59.g	59.g	a plan of actions which will be undertaken to ensure seepage from AMD storage structures is minimised including, where required, timelines for repairing damaged or installing new seepage management infrastructure.	J				1					N/A	Not Applicable		Condition is completed. AMP was submitted with the January 2020 MMP and approved 13Nov2020. This condition is marked as completed in the Authorisation dated 17May2023.
60	60	From the date of authorisation of the Overburden Management Project, water-related activities involving interfering with waterway and water extraction must be undertaken in accordance with the Water Act 1992, and where required, appropriate licenses/approvals are obtained from the responsible agency prior to commencement of the works. The Operator must ensure:					1					4	Full Compliance	Groundwater Extraction Licence for Bing Bong. Correspondence between DEPWS and Operator relating to Water Extraction Licence Application - Open Pit. BBLF licence granted on 7Apr2022. Correspondence between Operator and DITT relating to Bore Work Permit (WMD Geotech monitoring bores). BCPNA06954 - Pre-Works Notification dated 9Feb2023. BWP BCNA06954 amended dated 10Mar2023. Permit to Interfere with a Waterway - Clean Water Drain dated 26May2022. 2022-2023_BB Federation Bore (2014) Groundwater Extraction Records undated. Northern Clean water drain correspondence (to DITT and DEPWS) re approval, commencement and annual report Permit number: IWW:MRM-001. Correspondence between Operator and DITT relating to subject: FW_ Special Conditions Annual Reporting - MRM-001 dated 28Jul2022. Briefing Note subject: 2022 Annual Report - Northern Clean Water Drain (Permit IWW:MRM-001 dated 14Jul2022. Permit to Interfere with a Waterway - Permit # IWW:MRM-001 Correspondence between Operator and DITT relating to Bore Work Permit BCPNA06954 - Pre-Works Notification.	The Operator advised "As per correspondence and letters, MRM obtained a groundwater extraction licence to service water requirements at MRM's Bing Bong Loading Facility. The Licence permits the extraction of 51 megalitres per year (ML/yr) of groundwater, expiring on 31 March 2032. As per the correspondence, letters and data provided, a NOEF Clean Water Drain was approved by Department of Environmental Parks and Water Security (DEPWS) on 26 May 2022 and officially commenced on 5 June 2022." Provided evidence that the BBLF groundwater extraction is below 51ML 2022-23. Operator advised that no other licences or permits have been issued to MRM under the Water Act during the audit period. They are in the process of identifying a consolidated list of bores required for an annual period to apply for approval. Work on the cleanwater drain is still underway and completion criteria has not yet been met.
60.a	60.a	activities involving disturbance must not commence until required studies and/or trials to inform future design, construction and/or operation, as detailed in the approved MMP, are completed;					1					N/A	Not Applicable		There were no major works with water related activities interfering with waterways or bores in the audit period so no specialist studies or trials or ongoing inspection were required. The MMP does not include requirement for bores or drains.
60.b	60.b	works are conducted in accordance with a valid AAPA certificate;	1				1					4	Full Compliance	AAPA C92-91 Loading Facility - West Island - 1992. AAPA Certificate C2004083 (supersedes C2004013).	Relevant works in the audit period are related to groundwater extraction from an existing borefield at Bing Bong Loading Facility and WMD bores. The Operator advised "The WMD bores are within an area of the TSF covered under an existing AAPA Certificate C2004083 (supersedes C2004013)."
60.c	60.c	detailed designs, where nominated in the approved MMP, are developed and implemented in consultation with required experts, including but not limited to ecology, engineering and any other experts as appropriate;					1					N/A	Not Applicable		There were no major works with water related activities interfering with waterways or bores in the audit period so no specialist studies or trials or ongoing inspection were required. The MMP does not include requirement for bores or drains.
60.d	60.d	regular inspections and maintenance are undertaken to ensure design objectives continue to be satisfied.					1					N/A	Not Applicable	2022 Annual Report – Northern Clean Water Drain (Permit IWW:MRM-001)	The 2022 Annual Report – Northern Clean Water Drain states "MRM has not included any information on the erosion and sedimentation of the stream in this update because construction is not complete and revegetation has not yet commenced."
61	61	The Operator must complete translocation of the Purple-crown Fairy Wren in accordance with the approved MMP, prior to commencement of works on the Old McArthur River Channel plug.	1									N/A	Not Applicable	EMR 2021-2022 Executive Summary states: "Key environmental activities conducted during the reporting period included: • Successful completion of the Purple-crowned Fairy Wren translocation, with dominant males from all five translocated groups defending territories and multiple successful breeding seasons." The translocation of the Purple-crown Fairy Wren is a success story for the previous audit period.	Historical item. Completed before the audit period. The Operator advised that annual monitoring of the translocation area occurs. This condition is marked as completed in the Authorisation dated 17May2023.

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5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	Facility	Score	Compliance Level	Evidence 2023	Comments 2023
		The Operator must erect and maintain warning signage that:													Memorandum subject 'Warning Signage Inspection - January 2023 dated	
62	62													Refer to sub conditions	14Mar2023. Correspondence between Operator and NITT relating to Condition 62.c.iii.d.	
62.a	62. a	is permanent and weatherproof;								1			4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. Photographs show the warning signage appears sturdy and permanent in nature. Where signs require maintenance the memo advises that will be undertaken in the dry season. Signage requiring replacement from 2022 appears to have been undertaken based on new photos for 2023.	
62.b	62.b	contains specific wording agreed to by the Chief Health Officer of the Northern Territory;								1			4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. Letter dated 04Feb2015 to Chief Health Officer from Operator. Letter dated 04Feb2015 to Chief Health Officer from Operator advising of the agreed wording to be used on signage is what is shown on them from the inspection.	
62.c	62.c	is located:												Refer to sub conditions		
62.c.i	62.c.i	at appropriate distances and frequency along the waterway;								1			4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023.	Signs that were missing or difficult to read in January 2022 appear to have been replaced based on January 2023 inspection.
62.c.ii	62.c.ii	as a minimum at all access points, including but not limited to crossings, vehicle tracks and walking tracks.								1			4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023.	Signage at location 41 was removed in the audit period. The Operator advised that location 41 is well within the fenced area and the access would be from location 6 where a sign remains.
62.c.iii	62.c.iii	along the length of:												Refer to sub conditions		
62.c.iii.a	62.c.iii.a	Barney Creek downstream to its junction with the McArthur River;								1			4		Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. This sign could not be identified in the photo on the Warning Signage Inspection - January 2022 and had the text "Location 40 – Good, overgrown vegetation surrounding it." It remains identical in the January 2023 audit.	
62.c.iii.b	62.c.iii.b	Barney Creek upstream to a point a short distance upstream of where the Carpentaria Highway crosses Barney Creek;								1			4		Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. Warning Signage Inspection - January 2023 (memo dated 1Feb2022) viewed confirming no access signage is in place in all locations (refer locations 7 and 8).	
62.c.iii.c	62.c.iii.c	Surprise Creek to approximately the location of SW29;								1			4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. Operator Warning Signage Inspection - January 2023 photos viewed confirming no access signage is in place in all locations. Location 44 is the approximate location of SW29 (with 43 and 42 also relevant).	

Authorisation Co	mpliance Workk	book - Operator			ъ	>								Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Von-mineral Waste Vanagement	Open Pit/Undergroun Vorkings	railings Storage Facilit	Nater Management and Storages	Overburden Emplacement Facilitie	Exploration	Naterways (including iver diversion)	Sing Bong Loading	Score	Compliance Level	Evidence 2023	Comments 2023
62.c.iii.d	62.c.iii.d	Bing Bong shipping channel and in the immediate area surrounding the shipping channel and the swing basin.								1	1	4	Full Compliance	Memo subject 'Warning Signage Inspection - January 2023 dated 14Mar2023. Correspondence between Operator and DITT relating to Condition 62.c.iii.d. Warning Signage Inspection - January 2023 showed signage is located at each land entry point to the BBLF, which surround the water access. However, there was no evidence of signage along the length of the shipping channel and in the immediate area surrounding the shipping channel and swing basin. The Operator advised "MRM have provided correspondence to the Department on the intent of this condition." and " MRM are waiting on formal confirmation to be provided by the Department." Authorisation dated 17May2023 has not changed this condition.	
63	63	Wastes generated from operation of the Water Treatment Plant and Gypsum Plant must be disposed in accordance with concepts and management systems detailed in the approved MMP, ensuring:											Refer to sub conditions		
63.i	63.a.i	trials for the permanent disposal of Gypsum Plant and Water Treatment Plant wastes must be undertaken to inform final material placement;		1								N/A	Not Applicable		Future item. Water treatment plant has not been operational during the audit period and the gypsum plant is not constructed (planned for 2024).
63.ii	63.a.ii	the ITRB or an approved qualified and experienced independent third party endorse the waste disposal strategy, if the wastes are to be placed in the TSF; or		1		1						N/A	Not Applicable		Future item. Water treatment plant has not been operational during the audit period and the gypsum plant is not constructed (planned for 2024).
63.iii	63.a.iii	the ICE or an approved qualified and experienced independent third party endorse the waste disposal strategy, if the wastes are to be placed in the NOEF.		1				1				N/A	Not Applicable		Future item. Water treatment plant has not been operational during the audit period and the gypsum plant is not constructed (planned for 2024).
64	64	Water storage structures into which the Operator places or directs AMD must be designed, constructed and managed by the Operator to minimise to as low as reasonably practicable contaminants entering the Receiving Environment. In this regard the water storage structures into which the Operator is authorised to place or direct AMD whilst they continue to meet the requirements of this Condition are as follows:	1				1				1	3	Part Compliance (High)	Dams and Dumps Register 2022. Dams and Dumps Register 2023. EPROD Construction Report dated Nov2022. SPROD Construction & Commissioning Report dated Oct2022. Water balancing modelling for the McArthur Mine in support of the 2021/22 wet season TARP dated 20Dec2021. BBLF Inspection Forms dated 14Jul2022 to 25Nov2022. EMP Bing Bong Loading Facility dated 31Mar2021. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023 (after the audit period). 2022/23 Site Water Balance for the Bing Bong Loading Facility dated 17Aug2023 (after the audit period). BBLF Dam TARP summary tables dated 17Aug2023. MRM Dam TARP summary tables dated 17Jan2023 (rev 0, 23Dec2022). The water balance modelling reports for BBLF and Mine for 2022/23 were prepared in July 2023 (after the audit period). 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report states "The Mine water balance was assessed for the next four years of operations commencing November 2022, including the 2022/23, 2023/24, 2024/25 and 2025/26 wet seasons." However, the TARP summaries were prepared earlier (but still not before the wet season) There are no new actions listed in the Dams and Sumps Register since December 2021.	

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Authorisation Col	nphance works	Oberator			Þ	.		S		b0				Evidence 2023 Comments 2023
5 May 2022 Authorisation Condition No.		Condition/Requirement	overnance/General	on-mineral Waste lanagement	pen Pit/Undergrour /orkings	ailings Storage Facili	Jater Management nd Storages	verburden mplacement Facilitie	kploration	/aterways (including ver diversion)	ing Bong Loading	Score	Compliance Level	
64 .a	64. a	NOEF Southern Perimeter Runoff Dam (SPROD)	<u></u> <u></u> <u> </u>	22	o s	1	1	ÓШ	û	N rir	180 14	3	Part Compliance (High)	Dams and Sumps Register 2023. Dams and Dumps Register 2022. SPROD Construction & Commissioning Report states "The construction of SPROD was carried out by an experienced team under the supervision of a construction supervisor." and "Complete weekly visual inspections of the dam, as per the Operations, Maintenance and Surveillance Manual, looking for signs of instability, liner failure/defects, areas of disturbance under the liner, settlement, liner lifting and evidence of seepage." SPROD Construction & Commissioning Report states "The construction of SPROD was carried out by an experienced team under the supervision of a construction supervisor." and "Complete weekly visual inspections of the dam, as per the Operations, Maintenance and Surveillance Manual, looking for signs of instability, liner failure/defects, areas of disturbance under the liner, settlement, liner lifting and evidence of seepage." SPROD Construction & Commissioning Report states "The construction of SPROD was carried out by an experienced team under the supervision of a construction supervisor." and "Complete weekly visual inspections of the dam, as per the Operations, Maintenance and Surveillence Manual, looking for signs of instability, liner failure/defects, areas of disturbance under the liner, settlement, liner lifting and evidence of seepage." SPROD Construction & Commissioning Report dated Oct2022 recommends weekly visual inspections. SPROD Construction & Commissioning Report dated Oct2022 recommends weekly visual inspections. OFI: Provide confirmation that the weekly inspections of the SPROD and EPROD are being undertaken in accordance with ANCOLD (2003), and provide current versions of the Dam Safety Emergency Plan and Operations, Maintenance and Surveillance (OMS) manual.
64.b	64.b	NOEF South East Perimeter Runoff Dam (SEPROD);					1					4	Full Compliance	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023 (after the audit period). Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage.
64.c	64.c	NOEF Western Perimeter Runoff Dam (WPROD);					1					4	Full Compliance	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023 (after the audit period). Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage.
64.d	64.d	NOEF Eastern Perimeter Runoff Dam (EPROD);					1					2	Part Compliance (moderate)	Dams and Sumps Register 2023. Dams and Dumps Register 2022. EPROD Construction Report dated Nov2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28ul/2023 (after the audit period). Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage. EPROD Construction Report states "The construction Supervisor, [] Additionally, all locations identified as having substandard liner installation have been repaired. The repaired areas have consequently been retested passing the been repaired. The repaired areas have consequently been retested passing the been repaired. The repaired areas have consequently been retested passing the been repaired. The repaired areas have consequently been retested passing the been repaired. The repaired areas have consequently been retested passing the been repaired. The repaired areas have consequently been retested passing the been repaired. The repaired areas have consequently been retested passing the been repaired. The repaired areas have consequently been retested passing the been repaired. The repaired areas have consequently been retested passing the been repaired. The repaired areas have consequently been retested passing the been repaired. The repaired areas have consequently been retested passing the data that the overall installation of boundaries are discussed further in reports attaced in Appendix on the requirements of some part of the Technical Specification. However, with the missing documentation relating to the installation by Geotest, the same conclusion was unable to be made." FPROD Construction Report States "ANCOLO (2003) agages that a Dam Safety Emergency Plan (DSEP) be prepared for all dams where there is a potential for the loss of life in the event of a dam failure. The EPROD DSEP is currently in draft format at the time of plan
	64.e	Central West A Sump (CWAS);					1					N/A	Not Applicable	This sump has been removed from the Authorisation issued 5May2022. The Operator advised "CWAS was decommissioned in June 2021".

Authorisation Cor	mnliance Workh	ook - Operator													
Additionsation col	mphance works	ook - operator	eral	ste	round	ent	cilities		guipr	Ø				Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/Gen	Non-mineral Was Management	Open Pit/Underg Workings Tailings Storage F	Water Managem	Overburden Emplacement Fac	Exploration	<i>N</i> aterways (inclu river diversion)	Bing Bong Loadin Facility	Score	e (Compliance Level		
	64.f	Central West C Sump (CWCS);				1					4	F		Dams and Sumps Register 2022. Removed from the Variation 5May2022. Inspected at least monthly during the previous audit period as documented in the Dams and Sumps Registers.	This sump has been removed from the Authorisation issued 5May2022. The Operator advised "CWCS was decommissioned in June 2022. In the Dams and Sumps register it is called "Charlie Sump"." OBS: There is a period between 5 May 2022 and June 2022 where this sump may have been used for AMD storage without approval. Consider documenting when structures are decommissioned.
64.e	64.g	Mill Anti-Pollution Pond (Mill APP);				1					4	Fi	Full Compliance	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage.	
64.f	64.h	Mill Concentrator Runoff Pond (Mill CRP);				1					4	F	Full Compliance	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage.	
64.g	64.i	Open Pit Van Duncan's Dam (OP VDD);				1					4	Fi	full Compliance	Dams and Sumps Register 2021. Dams and Sumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected most months during the audit period. OP VDD is documented as Duncan's Dam in the Dams and Sumps Registers. There is a TARP for this storage.	
64.h	64.j	Open Pit Pete's Pond (OP PP);				1					4	Fi	- ull Compliance	Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected in most months during the audit period. OP PP is documented in the Dams and Sumps Registers as Petes Pond. There is a TARP for this storage.	
64.i	64.k	Open Pit Lake Archer (OP LA);				1					4	Fı	- ull Compliance	Dams and Sumps Register 2021. Dams and Sumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected most months during the audit period. OP LA is documented in the Dams and Sumps Registers as Lake Archer. There is a TARP for this storage.	
64.j	64.I	Mill Old Stores Dam (Mill OSD);				1					4	Fi		wet season TARP dated 20Dec2021. No inspections monthly during the audit period. Mill OSD is not documented in the Dams and Sumps Registers.	The Operator advised in the previous audit "The Mill Old Stores Dam, is actually a small 5m x 5m sump. A pump was removed from the sump over the Dry Season. This is the only recent history of maintenance for this water storage, as it has been dry for some time now. MRM will seek to have it removed from the VoA in the next amendment." This sump has not been removed from the Authorisation dated 17May2023. The Operator advised "Collects runoff from the mill and raw water overflow. Pumped back to mill or overflows to a drain that reports to Lake Archer. No documented inspections. Located in an operational area that has a high level of interaction, i.e. any issues would be picked up. Clay lined, not HDPE."

Authorisation Co	npliance Workb	ook - Operator			75	>		ν,							Evidence 2023	Comments 2023
		Condition/Requirement	3overnance/General	Von-mineral Waste Management	Open Pit/Underground Norkings	failings Storage Facilit	Nater Management and Storages	Overburden Emplacement Facilitie	Exploration	Naterways (including iver diversion)	Sing Bong Loading	aciiity	Score	Compliance Level	Evidence 2025	Comments 2025
64.k	64.m	Open Pit Pond 2 (OP P2);					1						4	Full Compliance	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected at least monthly during the audit period as documented in the Dams and Sumps Registers. There is a TARP for this storage.	
	64.n	Central East 1 Sump (CE1S);					1						N/A	Not Applicable		The Operator advised the long term CEBS has been constructed and replaces CE1S which was decommissioned in May 2021. This sump has been removed from the Authorisation issued 5May2022.
64.1	64.o	NOEF East Drain Sump (EDS);					1						4	Full Compliance	wet season TARP dated 20Dec2021. Water Management Plan Table 8. 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance forecast report dated 28Jul2023 (after the audit period). This 97 ML sump is listed as having no liner in Table 8 of the Water Management Plan. This storage is listed with a mine water storage capacity of 97 ML and stored volume of 0.09ML on 1 November 2022 in the 2022/23 Annual Site Water Balance	Decommissioned. No longer included in the 17May2023 Authorisation. "The Operator advised that "formal" inspections of this sump is not conducted due to the frequency of dewatering crew activities and stated "no plans to line the EDS as it will soon be replaced by a lined extraction well." The Operator advised that the dewatering crew do an inspection of all the lines at the start of every swing, which includes an informal drive by of sumps."
64.m	64.p	NOEF West D Sump (WDS);					1						4	Full Compliance	Dams and Sumps Register 2021. Dams and Sumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected most months during the audit period as documented in the Dams and Sumps Registers.	
64.n	64.q	NOEF Mine Infrastructure Area Sump (MIAS);					1						4	Full Compliance	Dams and Sumps Register 2021. Dams and Sumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected most months during the audit period. MIAS is documented in the Dams and Sumps Registers as MIA Sump.	
64.o	64.r	NOEF West A Sump (WAS);					1						4	Full Compliance	Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021.	Collects runoff / seepage from the NOEF. Outflow reports into SPROD via culvert. No documented inspections. Dewatering inspect on daily drive around when it is operating.
64.p	64.s	NOEF North East Alpha Sump (NEAS);					1						3	Part Compliance (High)	Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021.	This 10 ML sump is listed as having a CCL liner with plans for a BGM liner in Table 8 of the Water Management Plan. Based on 2022/23 Annual Site Water Balance for the McArthur River Mine Water balance this sump was commissioned in 2022-2023 and has no liner. OFI: Document inspections of North East Bravo Sump between June 2022 and April 2023.
64.q	64.t	NOEF North West Sump (NWS);					1						4	Full Compliance	Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021.	The Operator advised "Collects runoff / seepage from the NOEF. Outflows pumped to SEPROD. No documented inspections. Transfers recorded daily. Dewatering inspect on daily drive around when it is operating."
64.r	64.u	NOEF North East Stilling Basin (NESB);					1						N/A	Not Applicable		Future item. Not yet constructed

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Authorisation Co	mpliance Workb	ook - Operator			7	>								Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Jpen Pit∕Undergroun Morkings	Failings Storage Facilit	Water Management and Storages	Overburden Emplacement Facilitie	Exploration	Naterways (including iver diversion)	3ing Bong Loading -acility	Score	Compliance Level		
		Central East Alpha Sump (CEAS);	<u> </u>		0 >		> 0 			> =	- В Ц			Dams and Sumps Register 2021. Dams and Sumps Register 2022.	This sump has been removed from the Authorisation issued 5May2022.
	64.v						1					N/A	Not Applicable	balls and Julips register 2022.	The Dams and Sumps Registers indicate CEAS did not exist in the audit period (it was mined out).
64.s	64.w	NOEF Central East Bravo Sump (CEBS);					1					3	Part Compliance (High)	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected most months during the first half of the audit period as documented in the Dams and Sumps Registers as CEB sump. No evidence of inspections after October 2022.	OFI: Document inspections of Central East Bravo Sump between October 2022 and April 2023.
64.t	64.x	NOEF South Stilling Basin (SSB);					1					N/A	Not Applicable	No evidence provided for this structure.	The Operator advised that this storage structure does not exist in the previous audit period and it is listed as planned/under construction in the Water Management Plan.
64.u		NOEF South East Alpha Sump (SEAS)					1					4	Full Compliance	Water Management Plan Table 8 and Figure 16a. Water Management Plan Figure 16a does not show SEAS. However, it is included in Table 8 stating CCL & BGM but it is under the planned/under construction heading with storage capacity TBC.	The Operator advised "Collects runoff / seepage from the NOEF. Outflows pumped to SEPROD. No documented inspections. Transfers recorded daily. Dewatering inspect on daily drive around when it is operating."
64.v	64.y	Southern Overburden Emplacement Facility Sump (SOEF Sump);					1					4	Full Compliance	Dams and Sumps Register 2023. Dams and Dumps Register 2022. Water balance modelling for the McArthur River Mine in support of the 2021/22 wet season TARP dated 20Dec2021. Inspected most months during the audit period as documented in the Dams and Sumps Registers.	
64.w	64.z	EOEF Low Grade Sump (LGS);					1					N/A	Not Applicable		Future item. The Operator outlines in the status table that EOEF LGS is not yet constructed.
	64.aa	Rice Paddies Pond (RPP);					1					N/A	Not Applicable	Water Management Plan Figure 16a. Water Management Plan Figure 16a advises "this storage has not yet been developed".	This sump has been removed from the Authorisation issued 5May2022.
64.x	64.bb	Bing Bong Surface Runoff Pond 1 (BBSRP1);					1				1	4	Full Compliance	BBLF Environment Management Plan dated 31Mar2021. Routine visual inspection forms dated 14Jul2022, 25Nov2022 and 18Mar2023). Monitoring programs are described for BBSRP1 in BBLF EMP. There is a TARP for this storage but not since 2020/2021 wet season. BBLF EMP states "Surface water is managed by the existing containment storages at BBLF and the following is of note: • All water storages are appropriately sized to capture and retain runoff from the contributing catchments (see Plate 11); • All water storage spillways are appropriately sized (see Section 4.4.2); and • All water storages are appropriately sealed or lined to limit leakage through the base and wall of the dam. The net seepage after mitigation (e.g. lining) is limited to meet MRM's environmental objectives." and "BBLF storages have the following design characteristics: • Spillway capacity of 0.2% annual exceedance probability (AEP) storm event with a 0.3 m freeboard; • Flood inundation immunity from external catchments of <1% AEP, including ocean water storm tides; and • Spill frequency to receiving waters of <1% AEP."	

Authorisation Co 5 May 2022 Authorisation Condition No.	18 June 2021	oook - Operator Condition/Requirement	nance/General	nineral Waste gement	Pit/Underground ings	gs Storage Facility	r Management torages	ourden Icement Facilities	ration	rways (including diversion)	song Loading :y	Sco	ore	Compliance Level	Evidence 2023	Comments 2023
			iovei	lon-r Aana)pen Vork	ailin	Vate nd S	verk mpla	oldx	Vate iver (ing E acilit					
64.y	64.cc	Bing Bong Surface Runoff Pond 2 (BBSRP2);					1	О Ш		> -	1	4	4	Full Compliance	BBLF Environment Management Plan dated 31Mar2021. Routine visual inspection forms dated 14Jul2022, 25Nov2022 and 18Mar2023). Monitoring programs are described for BBSRP2 in BBLF EMP. There is a TARP for this storage but not since 2020/2021 wet season.	Referred to as Bing Bong Site Runoff Pond 2 in 18 June 2021 Authorisation.
64.z	64.dd	Bing Bong Surface Runoff Pond (BBSRP3).					1				1	4	4	Full Compliance	BBLF Environment Management Plan data 31Mar2021. Routine visual inspection forms dated 14Jul2022, 25Nov2022 and 18Mar2023). Monitoring programs are described for BBSRP3 in BBLF EMP. There is a TARP for this storage but not since 2020/2021 wet season.	Referred to as Bing Bong Site Runoff Pond 3 in 18 June 2021 Authorisation. Note appears to have a typo missing "3".
Water Transfer and D		Discharge The Operator must not transfer water to or discharge water from any water storage structure until:												Refer to sub conditions	WDL Annual Report 31Aug2022. PRO-2200035 Waste Discharge Procedure version 3 18Nov2021 (PRO-OP-0008-2200035). McArthur River Mine - Water Management Plan (May 2022) dated 13May2022. Memorandum Weekly Water Quality Review 5th – 14th February 2023 dated 22Feb2023. Memorandum Weekly Water Quality Review 19th – 21st February 2023 dated 2Mar2023.	The controlled discharge of water off-site has not been undertaken in the audit period and therefore no waste discharge or load tracking records are available.
65.a	65.a	water quality analysis has been received and interpreted by the Operator;					1					4	4	Full Compliance	Water Management Plan dated May2022. Memo Weekly Water Quality Review 5th – 14th February 2023 dated 22Feb2023. Water Management Plan section 3.4.4 states: "Water is not transferred from any water storage structure until water quality analysis has been received and interpreted and the results confirm that the water is suitable for the destination." Memo Weekly Water Quality Review 5th – 14th February 2023 dated 22Feb2023 shows that "UGB1 and 2 are operational and transferring class 6 process water to PP." Results for UGB1 and PP are included in the memo and indicate that water quality analysis is occurring.	The Independent Monitor notes that there were no monitoring results for UGB2 included in Memo Weekly Water Quality Review 5th – 14th February 2023 dated 22Feb2023. However UGB2 was operational and transferring to PP. UGB1 was the worst quality (class 6) and going to PP that also contained class 6 water. It would not change the outcome if there were results for UGB2 given the water could not be worse than class 6.
65.b	65.b	results confirm the water is suitable for the destination, having regard to the requirements of this document, the approved MMP and any other relevant restrictions on transfer or discharge of water within or from the Mine.					1					4	4	Full Compliance	Water Management Plan (May 2022) Memo Weekly Water Quality Review 5th — 14th February 2023 dated 22Feb2023 Water Management Plan section 3.4.4 states: "Water is not transferred from any water storage structure until water quality analysis has been received and interpreted and the results confirm that the water is suitable for the destination." Memo Weekly Water Quality Review 5th — 14th February 2023 dated 22Feb2023 shows that "UGB1 and 2 are operational and transferring class 6 process water to PP." Results for UGB1 and PP are included in the memo and indicate that the water quality from UGB1 is appropriate to be transferred into PP.	not change the outcome if there were results for UGB2 given the water could not be worse than class 6.
66		The Operator is authorised to undertake works to release water from WMD to Little Barney Creek in accordance with previous approvals as defined in Schedule B.					1			1		N/ <i>i</i>	/A	Not Applicable		Construction was complete before the audit period. Schedule B included an MMP amendment to construct the additional discharge point. OBS: As construction of works to release water from WMD to Little Barney Creek complete, DITT should consider marking this condition as complete.

Authorisation Co	mpliance Workb	ook - Operator			-5	>		s							Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Undergroun Workings	Failings Storage Facilit	Water Management and Storages	Overburden Emplacement Facilitie	Exploration	Waterways (including river diversion)	Sing Bong Loading	a cint)	Score	Compliance Level	Evidence 2023	Somments 2023
67	67	From the date of authorisation of the Overburden Management Project, water releases are authorised from the following points: < Authorised Release Points, Receiving Water Body, Latitude, Longitude > *WMD, Little Barney Creek, -16.42635, 136.0693 *Mine Levee Release Point (MLRP), Barney Creek Diversion, -16.42743, 136.1114 *South-East Levee 1 Release Point (SEL1 RP), Barney Creek Diversion, - 16.42394, 136.1082 *McArthur River Diversion Channel Release Point, McArthur River Diversion, -16.43468, 136.1207					1	Ž		1			N/A	Not Applicable	р	McArthur River Diversion Channel Discharge Point was not constructed in the audit period. Construction planned for next audit period. The controlled discharge of water off-site has not been undertaken in the audit period.
68	68	The Operator must:												Refer to sub conditions		
68.a	68.a	ensure all offsite water discharges are undertaken in accordance with a valid WDL;	1				1			1			N/A	Not Applicable		The controlled discharge of water off-site has not been undertaken in the audit period.
68.b	68.b	only release water for offsite discharge from the WDL approved points;					1			1			N/A	Not Applicable		The controlled discharge of water off-site has not been undertaken in the audit period.
68.c	68.c	interpret and report all data and results acquired as part of the activity in the Operator's Annual Environmental Mining Report;					1			1			N/A	Not Applicable		The controlled discharge of water off-site has not been undertaken in the audit period.
68.d	68.d	evaluate the performance of this activity in terms of its effectiveness as a management tool;					1			1			N/A	Not Applicable		The controlled discharge of water off-site has not been undertaken in the audit period.
68.e	68.e	by 30 June 2020, characterise total loads of mine-derived contaminants from all source inputs for the 2017-2018 period consistent with Condition 16.b), unless otherwise agreed in writing by the Department.					1			1			4	Full Compliance	Email Operator to Department subject MRM Variation of Authorisation Condition T (38c); 2017-2018 Mine -Derived Loads dated 8 May 2020. 220508 MRM-DPIR_Condition 38 mine-derived loads. Attachment A - 2017-18 Mine Derived Analyte Loads Assessment.	his condition is marked as completed in the Authorisation dated 17May2023.
69	69	The Operator must in relation to the WMD release point to Little Barney Creek undertake:												Refer to sub conditions		
69.a	69.a	release activity that minimises localised erosion, and utilises suitable energy dissipation and flow spreader structures (e.g. rock basin) and be monitored daily during release events;					1			1			N/A	Not Applicable	Т	The controlled discharge of water has not been undertaken in the audit period.
69.b	69.b	remediation in the event of unacceptable erosion occurring at the Carpentaria Highway culvert system to the satisfaction of the Department of Infrastructure, Planning and Logistics and the Department;					1			1			N/A	Not Applicable	p L	The Operator advised "No remediation was necessary or occurred over the audit period. The review of Little Barney Creek geomorphic characteristics using the 2022 iDAR noted that "little to no erosion has occurred in the vicinity of the culvert crossing, aside from minor gully erosion that occurred due to natural processes"."
69.c	69.c	a cross-section profile survey immediately up-stream and down- stream of the Carpentaria Highway crossing, prior to and following each wet season;					1			1			4	Full Compliance	Memo WRM to Operator subject: Review of Little Barney Creek geomorphic characteristics dated 21Mar2023. Surface Water Monitoring Report 2022/2023 dated 5Jul2023. Review of Little Barney Creek geomorphic characteristics dated 21Mar2023 stated "based on the available aerial photography and LiDAR ground survey information there has been no significant change to the Little Barney Creek channel bed and banks downstream of the WMDRP. On this basis, any discharges from the WMDRP undertaken since 2018 has not resulted in a significant change in geomorphic characteristics of Little Barney Creek" The memo/review includes cross sections immediately upstream and downstream of the Carpentaria Highway crossing and given they are annual from 2018 to 2022 (in August, September or October) they are prior to and following each wet season.	

Authorisation Co	mpliance Work	book - Operator														
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	Facility	Score	Compliance Level	Evidence 2023	Comments 2023
69.d	69.d	each wet season quantification of any significant changes to creek morphology as function of time by documenting at a minimum morphology prior to first water release, and following the last water release. This could be achieved, for example, using a drone survey of the drainage system between the flow outlet and Barney Creek Diversion using a consistent flight path, with the resulting image overlayed on appropriately sized grid (e.g. 2.5 x 2.5 m);					1	_		1			4	Full Compliance	Memo WRM to Operator subject Review of Little Barney Creek geomorphic characteristics dated 21Mar2023. Review of Little Barney Creek geomorphic characteristics dated 21Mar2023 stated "based on the available aerial photography and LiDAR ground survey information there has been no significant change to the Little Barney Creek channel bed and banks downstream of the WMDRP. On this basis, any discharges from the WMDRP undertaken since 2018 has not resulted in a significant change in geomorphic characteristics of Little Barney Creek"	
69.e	69.e	measure and record flow duration, flow rate and volume of all water released from WMD into Little Barney Creek;					1			1			N/A	Not Applicable		The controlled discharge of water has not been undertaken in the audit period.
69.f	69.f	ensure all evidence of continuous flow in Little Barney Creek along the length of the drainage system between WMD release outlet and Little Barney Creek Diversion Channel is available for inspection;					1			1			N/A	Not Applicable		The controlled discharge of water from the WMD RP to Little Barney Creek has not been undertaken during the audit period.
69.g	69.g	ensure the surface water monitoring schedule for the activity includes SW06, which must be assessed for identical parameters as defined for SW03. At monitoring points SW03 and SW06:					1			1			4	Full Compliance	Environmental Monitoring Schedule Rev 3 dated 25Oct2022. The MRM Environmental Monitoring Schedule 2021-2-22 Rev 3 dated 25Oct2022 includes all the parameters required at SW03 sampling point at SW06 also.	The controlled discharge of water from the WMD RP to Little Barney Creek has not been undertaken during the audit period. It is noted that multiple versions of the Environmental Monitoring Schedule were issued during the audit period.
69.g.i	69.g.i	Field parameters must also be measured daily during water release from WMD into Little Barney;					1			1			N/A	Not Applicable	Environmental Monitoring Schedule Rev 3 dated 25Oct2022.	No discharge occurred during the audit period.
69.g.ii	69.g.ii	The surface water monitoring analytical suite must include thallium, boron and cobalt;					1			1			4	Full Compliance	Environmental Monitoring Schedule Rev 3 dated 25Oct2022. Analytical suite includes thallium, boron and cobalt.	No discharge occurred during the audit period.
69.g.iii	69.g.iii	The surface water monitoring be continued for a further two weeks following completion of the release activities for the season or until field parameters have returned to baseline levels;					1			1			N/A	Not Applicable	Environmental Monitoring Schedule Rev 3 dated 25Oct2022.	No discharge occurred during the audit period.
69.h	69.h	Measure total loads of analytes (including lead and zinc) from all controlled discharge activities entering McArthur River at location SW06 or an alternate location as agreed by the Department;					1			1			N/A	Not Applicable		No discharge occurred during the audit period.
69.i	69.i	Interpret the data acquired as part of the activity and its effectiveness and report in the Operator's Annual EMR in accordance with Condition 9.					1			1			N/A	Not Applicable	Correspondence between Operator and DITT relating to 2022-2023 EMR Submission. The 2022-2023 MRM Submission Letter states that: "Water management detailed in Section 3.1. No water was discharged during the reporting period. Water transfer data will be included in the annual data package submitted to Department (refer Condition 7 above)."	
70	70	The Operator is authorised to undertake water management trial in accordance with:												Refer to sub conditions		Future item. No trials have occurred.
70.a	70.a	concepts detailed in the approved MMP, ensuring the trial is designed to manage and control all impacted surface water runoff in accordance with the Water Management Plan:					1						N/A	Not Applicable		Future item. No trials have occurred.
70.a.i	70.a.i	Irrigation of Treated Water – Open Woodland Irrigation;					1						N/A	Not Applicable		Future item. No trials have occurred.
70.a.ii	70.a.ii	Irrigation of Treated Water – Phytoremediation;					1						N/A	Not Applicable		Future item. No trials have occurred.
70.a.iii	70.a.iii	Lowering of surface water elevations – Evapotranspiration;					1						N/A	Not Applicable		Future item. No trials have occurred.

		oook - Operator	<u>_</u>	Ø)	pune	cility	Ħ	ities		in 8					Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	3overnance/Gener	Non-mineral Waste Management	Open Pit/Undergro Workings	railings Storage Fac	Nater Managemen and Storages	Overburden Emplacement Facili	Exploration	Naterways (includi iver diversion)	sing Bong Loading acility	Scol	re	Compliance Level		
70.a.iv	70.a.iv	Sulfate Treatment System – Passive engineered wetland;	9	22	0	<u> </u>	1	О Ш		> 'z	B	N/A	A	Not Applicable	Indicators of Biogenic Water Treatment Processes WATER MANAGEMENT DAM dated 15Dec2020, V.1 (before audit period). Section 4.1 of the Biogenic Water Treatment Processes report states: "several factors that are likely to contribute to the WMD essentially functioning as a water treatment wetland: The dam was not cleared of vegetation, and certain sections contain significant surface area of reeds, trees etc. The original soil profile has remained in place providing a microbial habitat, nutrients and a substrate for vegetation. It contains a functional aquatic ecosystem. " MRM has outlined that the Water Management Dam acts as a wetland to some degree, without engineering input.	The Operator advised "Passive engineered wetland trials have not been complete because the Water Management Dam is already functioning as a passive water treatment wetland."
70.a.v	70.a.v	Sulfate Treatment System – Active Bioreactor;					1					N/A	Α .	Not Applicable		Future item. The Operator advised that there has been no progress on the Active Bioreactors, and that this is unlikely to be practical/feasible.
70.b	70.b	Detailed designs, where nominated in the approved MMP, are developed in accordance with the concepts outlined in the approved MMP, and endorsed by relevant independent third party, prior to construction.					1					N/A	Α.	Not Applicable		Future item. There were no relevant designs in the audit period.
71		At the conclusion of the trials in Condition 70, the Operator must apply in writing to the Department for approval of full-scale implementation.					1					N/A	Α.	Not Applicable		Future item. No trials have occurred.
72	72	Water management using the Centre Pivot Irrigator is authorised:												Refer to sub conditions		Centre Pivot Irrigator was not in use in the audit period (is yet to be relocated to mine levee). It was decommissioned several years ago. Not operated in the 2020, 2021 or 2022 audit periods.
72.a	72.a	within the Mine Levee in accordance with concept previously approved, as defined in Schedule B;					1					N/A	Α .	Not Applicable		Centre Pivot Irrigator was not in use in the audit period (is yet to be relocated to mine levee). Not operated in the 2020, 2021 or 2022 audit periods.
72.b	72.b	adjacent to the TSF in accordance with concept presented in the approved MMP;					1					N/A	Α .	Not Applicable		Centre Pivot Irrigator was not in use in the audit period (is yet to be relocated to mine levee). Not operated in the 2020, 2021 or 2022 audit periods.
72.c	72.c	to be configured to maximise evaporation and minimise surface spray drift, surface runoff and infiltration into underlying natural soils.					1					N/A	A	Not Applicable		Centre Pivot Irrigator was not in use in the audit period (is yet to be relocated to mine levee). Not operated in the 2020, 2021 or 2022 audit periods.
Perimeter Run-Off Da		Dams - SPROD, SEPROD, WPROD and EPROD The Operator is approved to develop SPROD and SEPROD in accordance with relevant documents defined in Schedule B;					1					N/A	A	Not Applicable		Operator advised that SPROD and SEPROD were in use in the audit period but we constructed prior to the audit period. Liner and spillway construction were undertaken on SPROD 2019 and 2020 with a construction report prepared in the audit period.
74		The Operator is authorised to complete works to construct EPROD and WPROD in accordance with following:												Refer to sub conditions		
74.a	74.a	EPROD:												Refer to sub conditions		
74.a.i	74.a.i	as previously approved and defined in Schedule B, ensuring that only benign material be used in the construction of the western embankment wall;					1					4		Full Compliance	McArthur River Mining Eastern Perimeter Runoff Dam Construction Report dated Nov2022. Eastern Perimeter Runoff Dam Construction Report Section 3 Embankment Materials and Borrow Areas states in Table 3-1 that the material requirements and for the western embankment construction noted benign material.	
74.b	74.b	WPROD:												Refer to sub conditions		
74.a.i	74.a.i	CWNOEF and NOEF West D Amendment, as defined in Schedule B; and					1					N/A	Α	Not Applicable	Western Perimeter Runoff Dam Construction and Commissioning Report (37649_Western PAF Runoff Dam As-Constructed Report_GHD_Rev0_170714). WPROD was completed in 2017.	Completed before the audit period. WPROD was completed in July 2017 (before the audit period commenced) and Independent Monitor sighted a completion report dated 14Jul2017.

Authorisation Co	mpliance <u>Work</u>	kbook - Operator														
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	n Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility		Score	Compliance Level	Evidence 2023	Comments 2023
74.a.ii	74.a.ii	WPROD and Western Surface Water Management Design Update (GHD Memo), as defined in Schedule B.					1						N/A	Not Applicable	Western Perimeter Runoff Dam Construction and Commissioning Report (37649_Western PAF Runoff Dam As-Constructed Report_GHD_Rev0_170714). WPROD was completed in 2017.	Completed before the audit period. WPROD was completed in July 2017 (before the audit period commenced) and Independent Monitor sighted a completion report dated 14Jul2017.
75	75	The Operator must construct EPROD and WPROD in accordance with the following regime in the event groundwater dewatering is necessary:												Refer to sub conditions		The Operator advised "no groundwater dewatering was required for either WPROD or EPROD".
75.a	75.a	six hourly monitoring of field parameters for the first 24 hours of dewatering. Should parameters not stabilise during the first 24 hours then six hourly monitoring must continue until stabilisation has occurred;					1					I	N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPROD or EPROD".
75.b	75.b	field parameters must be taken daily following the first 24 hour period. Should parameters change more than 20% then the frequency must increase to every 12 hours until parameters have stabilised;					1						N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPROD or EPROD".
75.c	75.c	field parameters must include pH, specific electrical conductivity (SEC), temperature, REDOX and dissolved oxygen;					1						N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPROD or EPROD".
75.d	75.d	water samples must be taken and analysed at the commencement of dewatering at the end of the first 24 hours, and then weekly sampling and analysis of dewatering water for the remainder of the construction;					1						N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPROD or EPROD".
75.e	75.e	additional sampling and analysis must be undertaken if there is a substantial change in field parameters (approximately 30%);					1						N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPROD or EPROD".
75.f	75.f	analysis must include: specific electrical conductivity (SEC), major ions (Ca, K, Mg, Na, Cl, CO3, HCO3 and SO4), Al, As, Cd, Co, Cu, Fe, Mn, Ni, Pb, Se and Zn;					1						N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPROD or EPROD".
75.g	75.g	field parameters and samples for analysis must be taken from the dewatering source, not the receiving storage;					1						N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPROD or EPROD".
75.h	75.h	if flow meters fail, then dewatering must cease until they are repaired or replaced;					1						N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPROD or EPROD".
75.i	75.i	field water quality parameters, flow meter volumes and laboratory analysis must be submitted to Department on a monthly basis;					1						N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPROD or EPROD".
75.j	75.j	any indication of fracturing and/or caverns (Karstification/dissolution features) must be recorded during logging along with water strikes and estimated yields during drilling;					1						N/A	Not Applicable		The Operator advised "no groundwater dewatering was required for either WPROD or EPROD".
75.k Tailings storage facilit	75.k	Construction reports including QA and QC data endorsed by the ICE must be provided to the Department prior to commencement of operation within 30 days of construction being completed.					1						N/A	Not Applicable	Correspondence between DITT and Operator relating to Clarifying compliance requirements for perimeter runoff dams. EPROD Construction Report dated Nov2022.	DITT advised that the intent of subcondition 75k is for the submission of construction reports within 30 days of construction completion, irrespective of whether dewatering has occurred. Condition 75 and its subconditions (including 75k) are N/A as there was no dewatering. Condition 75.k. is revised in the Authorisation dated 17May2023 to be 75 (2) "Prior to use of the structure, submit to the Department construction reports including QA and QC data endorsed by the ICE within 60 days of construction being completed." Evidence of submission of the EPROD Construction Report to DITT and DITT's acknowledgement is provided.

Authorisation Co	nnliance Work	nook - Operator														
5 May 2022	18 June 2021 Authorisation	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	בפרוור)	Score	Compliance Level	Evidence 2023	Comments 2023
76	76	From the date of authorisation of the Overburden Management Project, tailings must be managed in accordance with the following:												Refer to sub conditions	MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022.	Is the January to March report available? Reload MRM TSF Quarterly Report - Q4 October 2022 to December 2022.
76.a	76.a	be deposited only in Cell 1, Cell 2 or combined Cell 1 and Cell 2;				1							4	Full Compliance	MRM TSF Quarterly Report - Q1 2022 December 2021 to March 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q4 October 2022 to December 2022. Review of the quarterly reports provided (relevant to over half of the audit period) do not indicate tailings being deposited outside of Cell 1 and Cell 2, in compliance with this condition. The following in the Quarterly Report April 2022 to June 2022 implied deposition into Cell 1 and Cell 2 "Water management undertaken during the reporting period-maintained Cell 1 and Cell 2 well below their respective MOLs, while tailings density and deposition were generally within the target/forecast range."	
76.b	76.b	any construction of tailings lift, as approved in Condition 79, be reviewed and endorsed by independent oversight requirements in Condition 48 and 50 or an alternative independent qualified and experienced third party approved by the Department in writing;				1								-	Refer to compliance scored in conditions 48 and 50.	Refer to compliance scored in conditions 48 and 50.
76.c	76.c	construction of the TSF lifts is undertaken in accordance with a valid AAPA certificate;	1			1							4	Full Compliance	Aboriginal Cultural Heritage Management Plan version 1.1 dated 14Jun2022. Aboriginal Cultural Heritage Management Plan advises that C2004/083 Variation to C2004/013 D89/199; 90/1015.1 is in place for the TSF.	
76.d	76.d	the TSF Seepage Interception Trench is fully operational by end of December 2020;				1							4	Full Compliance		The Independent Monitor was advised by the Operator that "The construction of the Surprise Creek Interception Trench was complete on 5 November 2020." Condition is obsolete. Evidence of operation was observed during the waste rock handling procedures audit conducted on 15June2022 OBS: DITT should consider marking this condition as complete given the TSF Seepage Interception Trench is fully operational.
76.e	76.e	in the event that future review of the designs or as-built structure by independent experts require additional matters to be addressed, the Operator together with the ICE must provide a written response that justifies the existing design or proposes an alternate design to the satisfaction of the Department.				1							N/A	Not Applicable		The Operator confirms that no design changes have been proposed for the TSF during the audit period.

Authorisation Co	mpliance Workb	ook - Operator														
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility	Score	Complia Leve	ince	Evidence 2023	Comments 2023
TSF Cell 1 and 2 Const		From the date of authorisation of the Overburden Management Project, the Operator is approved to develop TSF Cell 1 , Cell 2 and Combined Cell 1 and 2 lifts in accordance with:				1						4	Full Compl	1	MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q4 October 2022 to December 2022.	The Operator advised that there was no construction of TSF lifts in the audit period. Buttressing work continued.
77.a	77.a	McArthur River Mining Pty Ltd, Tailings Storage Facility, Design Development – Life of Mine Plan, May 2017, as defined in Schedule B;				1						4	Full Compl	J ((E iiiance	January 2020 MMP MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q4 October 2022 to December 2022. January 2020 MMP section 4.4.2 Life of Mine Plan states: "A LOM Plan for the TSF (TSF LOM Plan) (GHD, 2017) is provided in Appendix I of the Supplementary OMP EIS and presents the preferred design of the TSF over the life of the facility, which includes the following: • removal of TSF Cells 3 and 4 approved under the Phase 3 EIS; • recommissioning of the partially capped TSF Cell 1; • adoption of a combined Cell 1/2 over time; and • rehandling and reprocessing of tailings prior to disposal in the Open Pit upon cessation of Open Pit mining." Works appear to have been consistent with the above.	With respect to the discrepancy between the lift stages/heights in the Authorisation and the approved design for cell 2 stage 7, which is above this height already, DITT advised "Delegate decided formal record of discrepancy on file sufficient - no change to Authorisation required.
77.b	77.b	the approved MMP for the following stages:											Refer to condition			
77.b.ii	77.b.ii	Cell 1 Raise 4 – 10,056.0 mRL;				1						N/A	Not Applic	cable		Historic item. Works completed before the audit period.
77.b.ii	77.b.ii	Cell 1 Raise 5 – 10,059.0 mRL;				1						N/A	Not Applic			Historic item. Works completed before the audit period.
77.b.iii	77.b.iii	Cell 2 Raise 6 – 10,061.0 mRL;				1						N/A	Not Applic	-		Historic item. Works completed before the audit period.
77.b.iv	77.b.iv	Cell 2 Raise 7 – 10,061.5 mRL;				1						N/A	Not Applic			Historic item. Works completed before the audit period.
77.b.v	77.b.v	Combined Cell 1 and 2 Raise 1 – 10,062.6 mRL;				1						N/A	Not Applic			N/A due to lift heights no longer being consistent with approved design. With respect to the discrepancy between the lift stages/heights in the Authorisation and the approved design for cell 2 stage 7, which is above this height already, DITT advised "Delegate decided formal record of discrepancy on file sufficient - no change to Authorisation required.
77.b.vi	77.b.vi	Combined Cell 1 and 2 Raise 2 – 10,063.8 mRL;				1						N/A	Not Applid	cable		N/A due to lift heights no longer being consistent with approved design. With respect to the discrepancy between the lift stages/heights in the Authorisation and the approved design for cell 2 stage 7, which is above this height already, DITT advised "Delegate decided formal record of discrepancy on file sufficient - no change to Authorisation required.
77.b.vii	77.b.vii	Combined Cell 1 and 2 Raise 3 – 10,065.0 mRL;				1						N/A	Not Applic	cable		N/A due to lift heights no longer being consistent with approved design. With respect to the discrepancy between the lift stages/heights in the Authorisation and the approved design for cell 2 stage 7, which is above this height already, DITT advised "Delegate decided formal record of discrepancy on file sufficient - no change to Authorisation required."
77.b.viii	77.b.viii	Combined Cell 1 and 2 Raise 4 – 10,066.2 mRL;				1						N/A	Not Applic	cable		No works undertaken.
77.b.ix	77.b.ix	Combined Cell 1 and 2 Raise 5 – 10,067.4 mRL;				1						N/A	Not Applic	cable		No works undertaken.
77.b.x	77.b.x	Combined Cell 1 and 2 Raise 6 – 10,068.6 mRL;				1						N/A	Not Applic	cable		No works undertaken.
77.b.xi	77.b.xi	Combined Cell 1 and 2 Raise 7 – 10,069.8 mRL;				1						N/A	Not Applic	cable		No works undertaken.
77.b.xii	77.b.xii	Combined Cell 1 and 2 Raise 8 – 10,071.0 mRL;				1						N/A	Not Applic	cable		No works undertaken.
77.b.xiii	77.b.xiii	Combined Cell 1 and 2 Raise 9 – 10,072.2 mRL;				1						N/A	Not Applic	cable		No works undertaken.
77.b.xiv	77.b.xiv	Combined Cell 1 and 2 Raise 10 – 10,073.4 mRL;				1						N/A	Not Applic	cable		No works undertaken.
77.b.xv	77.b.xv	Combined Cell 1 and 2 Raise 11 – 10,074.6 mRL;				1						N/A	Not Applic	cable		No works undertaken.
77.b.xvi	77.b.xvi	Combined Cell 1 and 2 Raise 12 – 10,075.8 mRL;				1						N/A	Not Applic	cable		No works undertaken.
77.b.xvii	77.b.xvii	Combined Cell 1 and 2 Raise 13 – 10,077.0 mRL;				1						N/A	Not Applic	cable		No works undertaken.

Authorisation Cor	mnlianco Workh	ook Operator										_				
Authorisation Cor	mphanice works	ook - Operator			5	≥		y,							Evidence 2023	Comments 2023
		Condition/Requirement	iovernance/General	Ion-mineral Waste Aanagement	pen Pit/Undergroun Vorkings	ailings Storage Facilit	nd Storages	werburden mplacement Facilitie	xploration	Vaterways (including iver diversion)	ing Bong Loading acility	:	Score	Compliance Level		
77.b.xviii	77.b.xviii	Combined Cell 1 and 2 Raise 14 – 10,078.0 mRL.	G		0 >	1	א פ	ш	ш	> =	- ш-	-	N/A	Not Applicable		No works undertaken.
78	78	For each lift, the Operator must ensure detailed designs follow the approved McArthur River Mining Pty Ltd Tailings Storage Facility Raising General Specification for Design and Construction; with oversight provided by the ICE consistent with Condition 48.				1							N/A	Not Applicable		The Operator advised that there were no lifts in the audit period and no design reports for future lifts have been provided as evidence.
TSF Management	TSF Management															
79		The Operator must operate and maintain the TSF in accordance with the most up-to-date TSF Operations Maintenance and Surveillance manual, ensuring:				1						I	4	Full Compliance	Tailings Storage Facility – Operations, Maintenance and Surveillance Manual (version 6 - draft). TSF OMS Manual in section 5.3 states that the version is 6 as a draft to reflect "Update following Cell 1 Stage 5 construction, Cell 2 Stage 7 construction". There has not been a final version of the TSF OMS since 31Jul2020. There was no evidence of operation of the TSF in a way that did not align with the TSF OMS Manual.	TSF OMS Manual version 6 is the latest version approved by the ITRB, provided. Version 7 has been provided to the ITRB for review and endorsement prior to finalising.
79.a	79.a	no discharge of water into the TSF unless										П		Refer to sub conditions		
79.a.i	79.a.i	it is water contained within the Tailings stream which is at normal operational slurry densities; or				1							4	Full Compliance	MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q4 October 2022 to December 2022. OMS Manual Internal Operator email subject IM Audit - OMS Manual Error dated 22Sep2023. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022 Section 2.4.1 reports outlined in Section 2.4.1 that the average tailings slurry density for the reporting period was 53.3%, which falls within the target range of 50 - 55%, with 4 instances where densities were not within this range due to a higher water content caused by minor mill processing issues MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022 Section 2.4.1 reports that the average slurry density was 53.3% and was primarily within the target range of greater than 50% (which is a disparity from the previous Q2 Quarterly Reports) and also reported on 7 instances where the densities were not in the target range due to minor mill processing issues causing a higher water content and also resulting in a lower volume of tailings slurry. The target range of average slurry density was different between Q2 (50 - 55%) and Q3 (>50%). Internal Operator email subject IM Audit - OMS Manual Error dated 22Sep2023 stated the requirement to update Table 8-3 of the OMS Manual to be consistent with TARP Table 8-10 which specifies density >50% as the target normal range.	OBS: Table 8-3 of the OMS Manual should be updated to be consistent with TARP Table 8-10 which specifies density >50% as the target normal range.
79.a.ii	79.a.ii	It is endorsed by the ITRB;				1							4	Full Compliance	The Operator advised "Inflow to the TSF was limited to tailings slurry and rainfall during the audit period. No other wastewaters were released to the TSF Cells 1 and 2."	
79.b	79.b	all Tailings are deposited sub-aerially to allow proper beaching and drying between deposition cycles;				1							4	Full Compliance	MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022 Section 1.2 states: "The tailings are deposited sub-aerially through spigots, at approximately 50 metre (m) intervals around the perimeter of the TSF embankment, via 355 mm OD polyethylene (PE) pipes."	
79.c	79.c	surface water levels are maintained in the TSF such that they do not come into contact with the embankment internal walls;				1							4	Full Compliance	Q2 2022 TSF Quarterly Report April 2022 to June 2022. Q3 2022 TSF Quarterly Report July 2022 to September 2 022.	The Operator advised "Decant pond levels for both Cell 1 and Cell 2 were maintained below the respective Maximum Operating Levels (MOL) as detailed and verified under sections 2.3.1.1. and 2.3.1.2 of the enclosed TSF Quarterly Reports."

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Authorisation Co 5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	ook - Operator Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	Facility	Score	Compliai Level	
79.d	79.d	phreatic surface is managed to avoid compromising the integrity of the embankment.				1							4	Full Complia	MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022 states in the Executive Summary "The TSF continues to operate in accordance with the Operations, Maintenance and Surveillance (OMS) Manual with tailings densities predominately within the target range of 50-55% solids content. Deposition was however lower than forecast for the reporting period due to reductions in mill throughput, which resulted in a decreased tailings rate of raise at the TSF. As noted by the Independent Certifying Engineer (ICE), the piezometers exhibited stable or dissipating pore pressure conditions, and no trends of concern have been observed for the safety of the embankment." MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022 states in the Executive Summary: "Deposition was lower than forecast for the reporting period due to reductions in mill throughput, which resulted in a slightly decreased rate of rise in tailings at the TSF. As noted by the Independent Certifying Engineer (ICE), the piezometers exhibited stable or dissipating poor pressure conditions, and no trends of concern have been observed for the safety of the embankment."
80		The Operator must provide quarterly to the Minister a written status report on the seepage and management of seepage from the TSF, including the following:	1			1							4	Full Complia	MRM TSF Quarterly Report - Q1 2022 December 2021 to March 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q4 October 2022 to December 2022. Letter Operator to DITT subject: MRM TAILINGS STORAGE FACILITY QUARTERLY REPORT (December 2021 – March 2022) dated 20Jun2022. INSAR Report dated 8Mar2022. Acceptance Letter - TSF Quarterly Reports Feb2023. Correspondence between DITT and Operator relating TSF Quarterly Report _ July 2022 - September 2022. Correspondence between Operator and DITT relating to TSF Quarterly Report April 2022 - June 2022. Correspondence between DITT and Operator relating to TSF Quarterly Report _ July 2022 - September 2022. Correspondence between Operator and DITT relating to TSF Quarterly Report December 2021. Correspondence between Operator and DITT relating to TSF Quarterly Report December 2022. Correspondence between Operator and DITT relating to TSF Quarterly Report December 2022. Correspondence between Operator and DITT relating to TSF Quarterly Report December 2022 March 2022 (noting this is for 4 months rather than a quarter and submitted in the audit period). Correspondence between Operator and DITT relating to TSF Quarterly Report October 2022 - December 2022 December 2022
80.a	80.a	water levels in the TSF;				1							4	Full Compli	MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM Tailings Storage and Facility Quarterly Report April 2022 - June 2022 displays compliance for water levels against MOL for Cell 1 and Cell 2 in Figure 2-1 and Figure 2 - 2 respectively. MRM Tailings Storage Facility Quarterly Report July 2022 - September 2022 displays compliance for water levels for Cell 1 and Cell 2 in Figure 2-1 and Figure 2 - 2 respectively. There is also a graph the present WMD water level and seepage collection volumes in Figure 2 - 4.

Authorisation Co	mpliance Workb	ook - Operator												
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	Condition/Requirement	overnance/General	on-mineral Waste anagement	pen Pit/Underground orkings	ilings Storage Facility	ater Management nd Storages	verburden nplacement Facilities	ploration	aterways (including ver diversion)	ng Bong Loading cility	Score	Compliance Level	Evidence 2023 Comments 2023
80.b	80.b	all monitoring data associated with the seepage (including geotechnical and environmental monitoring);	99	N M	S N	1 Ta	an an	Ov En	Ex	W	Bit Fa	4	Full Compliance	MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM Tailings Storage and Facility Quarterly Report April 2022 - June 2022 Table 2-1 provides data including sum of seepage collected Section 2.3.2 details information pertaining to seepage management for Cell 2 but does not provide specifics relating to Cell 1. No seepage was observed or pumped from the west corner during this reporting period. Section 2.5.3 details the historic seepage activities for Cell 2, and provides generalist results of filters metals testing. It also outlines that Cell 2 Spillway Recovery Seepage bore could not be located during the reporting period, and how it has therefore not been sampled since September 2021. MRM Tailings Storage Facility Quarterly Report July 2022 – September 2022 Table 2-1 provides data including sum of seepage collected, which does not include Cell 1. Section 2.3.2 details information pertaining to seepage management for Cell 2 but does not provide specifics relating to Cell 1. No seepage was observed or pumped from the west corner during this reporting period. Seepage at the old Cell 2 spillway location was inspected and monitored on a daily basis, with a total of 216 m3 was pumped back in July, August and September.
80.c	80.c	flow rate of each seep;				1						4	Full Compliance	MRM TSF Quarterly Report - Q1 2022 December 2021 to March 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. e MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022 - Section 2.3.2 includes seepage flow rates.
80.d	80.d	all actions undertaken during the quarter associated with the seepage and management of Tailings;				1						4	Full Compliance	MRM TSF Quarterly Report - Q1 2022 December 2021 to March 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. Attachment B - TSF Recommendation Instruction and Action Register of the MRM TSF Quarterly Report - July 2022 - September 2022 includes actions that were due but were incomplete. OBS: Recommendations in the TSF Recommendation Instruction and Action Register should be closed out by the due date. Where actions are not completed by the due date, stating "overdue" rather than "incomplete" and using a different colour of shading in the TSF Recommendation Instruction and Action Register, may prove helpful.
80.e	80.e	all actions planned for the next quarter associated with seepage and management of Tailings.				1						4	Full Compliance	MRM TSF Quarterly Report - Q1 2022 December 2021 to March 2022. MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022. MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022 - Table 2-3 describes the ongoing operational actions by recommended frequency and the Attachment B - TSF Recommendation Instruction and Action Register also includes actions.
Geochemical, Geotech		ogical Assessments and Investigation Drilling The Operator is authorised to undertake Drilling Investigations as outlined in relevant approved plans defined in Schedule B and approved MMP, ensuring adherence to industry best practice:							1			4	Full Compliance	EMR 2022-2023 dated 31Aug2023. EMR 2022-2023 Appendix A 2022-2023 Drilling Register 2021 Hydrogeological Drilling and Field Campaign version 1 dated 4Jul2022. 2022/2023 Hydrological Drilling and Field Campaign version 1 dated 26Jun2023. EMR 2022-2023 states in section 2.1 "All drilling during the reporting period was undertaken in accordance with the January 2020 MMP."
81.i	81. i	in order to collect samples for waste rock characterisation and geochemical and geotechnical analyses;							1			4	Full Compliance	EMR 2022-2023 Appendix A 2022-2023 Drilling Register dated Aug2023 EMR 2022-2023 states in section 2.1 "All drilling during the reporting period was undertaken in accordance with the January 2020 MMP." EMR 2022-2023 Appendix A 2022-2023 Drilling Register has 15 holes with purpose being resource or geotechnical.

Policy and the production with the control of the c	Authorisation Co	mpliance Workb	ook - Operator												
11	Authorisation	Authorisation	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Score		Evidence 2023	Comments 2023
Bill Bill Bill Bill Bill Bill Bill Bill	81.ii	81.ii	available within the Mine Levee Wall (including the pit) and areas							1		4	Full Compliance	EMR 2022-2023 states in section 2.1 "All drilling during the reporting period was undertaken in accordance with the January 2020 MMP." EMR 2022-2023 Appendix A 2022-2023 Drilling Register has 15 holes with purpose	
A Policy process of the configuration of the config	81.iii	81.iii								1		4	Full Compliance	EMR 2022-2023 states in section 2.1 "All drilling during the reporting period was undertaken in accordance with the January 2020 MMP." EMR 2022-2023 Appendix A 2022-2023 Drilling Register has 15 holes with purpose	
Policy and the production with the control of the c	81.iv	81.iv	groundwater inputs into the underground void and installation of							1		4	Full Compliance	, , , , , , , , , , , , , , , , , , , ,	
the Minister on request and reported in the Operator's EMR. 2027/2023 Hybrological Drilling and Fleed Campaign version dated 2018/2023 2018 MMR Submission.	82		investigation activities are rehabilitated consistent with industry best							1		4	Full Compliance	Correspondence between Internal Operator Staff relating to Teena Exploration Sites - Environmental Inspection 19/11/22. Exploration Drill Set Inspection Report dated 19Nov2022. EMR 2022-2023 Appendix A 2022-2023 Drilling Register dated Aug2023. The EMR 2022-2023 Appendix A 2022-2023 Drilling Register shows that of the 15 holes, 11 were grouted, 1 capped, 2 had monitoring equipment installed and one	Site 1: Teena_21001 Site 2: Teena_21001A These were inspected in November 2022. In accordance with section 4.1 of the Exploration Management Plan remediation will begin when feasible. Drill holes were plugged to reduce the risk to groundwater impacts over the wet season and may be re-drilled in 2023." Note that rehabilitation was undertaken before the audit period but not
84 84 made available to the Department on request. 1	83									1		4	Full Compliance	2022/2023 Hydrological Drilling and Field Campaign version 1 dated 26Jun2023. Correspondence between Operator and DITT relating to 2022-2023 EMR Submission. The 2022-2023 MRM Submission Letter states that: "Drilling characterisation data is included in Section 2.1, and Appendix I of the EMR." Section 2.1 of the EMR states that: "All drilling during the reporting period was undertaken in accordance with the January 2020 MMP. A drilling register for the reporting period is provided in Appendix A." Section 2.2 of the Drilling Campaign contains results for the drilling, installation, geological and hydrological observations and groundwater testing." Characterisation data for hydrogeological drilling is included in 2022-2023 however no characterisation data related to exploration was provided. EMR 2022-2023 states "MRM operated in accordance with the January 2020 MMP which describes the MRM waste rock classification criteria." related to blast hole	The Operator advised "Characterisation data for Geochemical and Geotechnical exploration drilling is commercially sensitive information not suitable for inclusion in the EMR. Condition 83 has been amended in VoA 0059 (V13) dated 17 May 2023 accordingly, allowing characterisation data to be submitted in an alternative format as agreed with the Department."
rehabilitated in accordance with the approved MMP and the basis for the proposed adjustment of total security adjustments required under The full security remains in place. 85 85 Condition 11, are provided in the annual Unplanned Closure Plan report to the satisfaction of the Department. 1 N/A Not Applicable N/A Not Applicable	84			1						1		N/A	Not Applicable		No request was made by the Department for documentation related to the investigations.
Exploration Exploration	85	85	rehabilitated in accordance with the approved MMP and the basis for the proposed adjustment of total security adjustments required under Condition 11, are provided in the annual Unplanned Closure Plan							1		N/A	Not Applicable		Investigations are not complete or in areas of ongoing disturbance. The Operator does not intend to seek to relinquish security from these areas until rehabilitated. The full security remains in place.
	Exploration	Exploration													

Authorisation Cor	npliance Workbo	pok - Operator														
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility	Sca	ore	Compliance Level	Evidence 2023	Comments 2023
86	86	The Operator must ensure that:												Refer to sub conditions		
86.a	86.a	works are undertaken in accordance with management systems detailed in the approved MMP;							1			4	ı	Full Compliance	Photos of Teena exploration site (north and south). Grouted drill holes. Exploration Drill Set Inspection Report dated 19Nov2022. Permit to Clear Procedure version 3 (PRO-220033) undated. Excavation and Trenching Procedure version 3 (PRO-2600038) dated 31May2021. Exploration Management Plan version 2 dated May2021. Correspondence between Internal Operator to Internal Operator subject: RE: Teena Exploration Sites - Environmental Inspection 19/11/22.	January 2020 MMP states "Following the completion of the drilling program and prior to the wet season, drill hole collars will be surveyed, plugged and backfilled with clean fill. Compacted ground will be ripped, with stockpiled topsoil and vegetation spread over the cleared area." The Operator advised that evidence of implementation of the Exploration Management Plan "is that drill holes have been grouted and prepped for closure. Excavations/sumps have been backfilled - photos provided."
86.b	86.b	an environmental management plan is in place that addresses:							1					Refer to sub conditions		
86.b.i	86.b.i	chemical use and storage (e.g. hydrocarbons, drilling fluids);							1			4	ŀ	Full Compliance	Exploration Management Plan SPC-3100001 May 2021, Version 2. Exploration Drill Set Inspection Report dated 19Nov2022. Inspection record provided showed that chemical management had been part of the site inspection.	
86.b.ii	86.b.ii	erosion and sediment control;							1			4	1	Full Compliance	Exploration Management Plan SPC-3100001 May 2021, Version 2. Exploration Drill Set Inspection Report dated 19Nov2022. Correspondence between Internal Operator Staff relating to Teena Exploration Sites - Environmental Inspection 19/11/22. Inspection record provided showed that erosion and sediment control were part of the site inspection and an internal email demonstrated that sediment controls were part of management.	Section 3.1.1 of the Exploration Management Plan says "During the planning and construction of the drill area and when necessary, access tracks, the following will be considered: [] *Vegetation clearing during, and immediately after rainfall events, will be avoided; * Vegetation clearing will be kept to a minimum required to safely traverse vehicles and drill rigs along tracks and drill pads; [] *Methods to control erosion and sediment flow;" and "Appropriately size sumps and tanks to contain sufficient volumes of water, sediment and drilling fluids encountered during drilling;" The rehabilitation requirements are included "Access tracks will be rehabilitated, including pushing in all windrows, unless otherwise agreed in writing by the land holder or appropriate third party; * Appropriate erosion and sediment controls will be installed where erosion is evident or likely to occur; * Access through watercourses will be removed and banks restored; * All previously disturbed areas will be stable, with no evidence of active soil erosion".
86.b.iii	86.b.iii	dust;							1			4	L	Full Compliance	Exploration Management Plan SPC-3100001 May 2021, Version 2. Exploration Drill Set Inspection Report dated 19Nov2022. Inspection record provided showed that assessment of dust was included in the site inspection.	Section 3.1.2 of the Exploration Management Plan says "Controls to minimise airborne dust".
86.b.iv	86.b.iv	associated risks common for exploration works;							1			4	l	Full Compliance	Exploration Management Plan SPC-3100001 May 2021, Version 2. Exploration Drill Set Inspection Report dated 19Nov2022. Inspection record provided showed that assessment of fauna exclusion/ramps, retaining vegetation, weed control and waste management are included in the site inspection.	There are controls for various other common risks included in the Exploration Management Plan. No mention of risks like cultural heritage or AAPA requirements in the environmental inspection, however these are covered by the permitting process.
86.c	86.c	rehabilitation is undertaken for locations not needed for further use;							1			N/	/A	Not Applicable		Investigations are not complete or in areas of ongoing disturbance. The Operator does not intend to seek to relinquish security from these areas until rehabilitated. The full security remains in place.

Authorisation Co	mpliance Work	book - Operator			70	>		' Δ							Evidence 2023	Commonts 2022
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Norkings	failings Storage Facility	Nater Management and Storages	Overburden Emplacement Facilities	exploration	Naterways (including iver diversion)	sing Bong Loading acility	I	Score	Compliance Level	Evidence 2023	Comments 2023
86.d	86.d	a rehabilitation report including details regarding the status of disturbance rehabilitated drill holes and the basis for the proposed adjustment of total security in accordance with Conditions 10, 11 and 12, to the satisfaction of the Department.							1			I	N/A	Not Applicable	Correspondence between Operator and DITT relating to MRM - 2022-2023 EMR Submission. The 2022-2023 EMR Submission Letter states that: "Rehabilitation of disturbance related to investigation drilling has been undertaken progressively, and no adjustment to security is currently required. Therefore MRM has not submitted a request to adjust the current security held by the Department."	Investigations are not complete or in areas of ongoing disturbance. The Operator does not intend to seek to relinquish security from these areas until rehabilitated. The full security remains in place.
Non-mineral Waste N	Non-mineral Wast															
87	87	The Operator is authorised to complete works to prepare and construct a Centralised Waste Facility (CWF) for management of general, contaminated and putrescible wastes, in accordance with:										П		Refer to sub conditions		CWF has not been constructed and potentially may be constructed in 2024.
87.a	87.a	concept designs presented in the document entitled McArthur River Mine Mining Management Plan Amendment, January 2019, as defined in Schedule B, ensuring detailed designs:		1									N/A	Not Applicable		CWF has not been constructed and potentially may be constructed in 2024.
87.a.i	87.a.i	follow the approved concepts for the facility (including 100 year ARI flood immunity, CCL and protective armour, drainage works and biosecurity control);		1									N/A	Not Applicable		CWF has not been constructed and potentially may be constructed in 2024.
87.a.ii	87.a.ii	the structure design and construction is undertaken in accordance with independent oversight consistent with Conditions 48 and 50;		1									N/A	Not Applicable		CWF has not been constructed and potentially may be constructed in 2024.
87.a.iii	87.a.iii	include allowances for the installation of an adequate number of monitoring bores at suitable locations to monitor the environmental performance of the structure with respect to contaminant seepage. These monitoring locations must be integrated and reported within the site-wide water monitoring requirements.		1									N/A	Not Applicable		CWF has not been constructed and potentially may be constructed in 2024.
		The Operator must ensure the non-mineral waste facility, landfill or														Future item. Still in use.
88	88	equivalent previously in use is rehabilitated following approval by the Department of a rehabilitation plan.		1									N/A	Not Applicable		
Rehabilitation Trials	Rehabilitation Tria															
89	89	The Operator is authorised to undertake the following rehabilitation trials, in accordance with concepts defined in relevant documents in Schedule B and the approved MMP:												Refer to sub conditions		
89.a	89.a	Construction Test Pads (CTP) on NOEF West stage;						1					4	Full Compliance	January 2020 MMP. EMR 2022-2023 dated 31Aug2023. EMR 2022-2023 section 2.4.4.2 includes the key aims of the large-scale cover trials and states "Approximately 15 ha of BGM were installed during 2022 on the southern face of the NOEF West Stage, as shown in Plate 7. Two separate monitoring systems are currently being trialled under/ove the BGM, including a wireless system and a fiber optic system. Due to issues with these monitoring systems, no available monitoring data is available for the reporting period, and no over-liner, growth medium, or topsoil could be placed during the reporting period. The over-liner, growth medium and topsoil layer placement is expected to commence during the 2023 dry season, after which monitoring data will also start to become available."	

Authorization Co	mandiana a Manda	ocale Outside															
Authorisation Co	mpliance work	book - Operator			ъ											Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Undergroun Morkings	Failings Storage Facilit	Nater Management and Storages	Overburden Emplacement Facilitie	Exploration	Waterways (including iver diversion)	Sing Bong Loading	, and a second	Score	Complia Leve	ince		
		PAF(RE) Cell and Cover System Performance on NOEF Southeast														January 2020 MMP.	The trial is ongoing.
		stage;														EMR 2022-2023 dated 31Aug2023. EMR 2022-2023 discusses these trials in section 2.4.4.1 PAF (RE) Cell and Cover System Performance Trials.	Independent Monitor advised by the Operator that all runoff from rehabilitation trial areas are contained in the water management system, as required by the January 2020 MMP.
89.b	89.b							1					4	Full Compi	liance		January 2020 MMP states "Construction of a PAF (RE) cell as per the OMP EIS design, on an impervious geosynthetic-lined base. The PAF (RE) cell will be constructed in 3 x 2 m lifts and will include fine-grained low-air-permeability barriers (advection barriers) and a wet season cover, replicating the OMP EIS design. The PAF (RE) lifts will be instrumented for temperature, moisture and gas analysis. It will be left to stand for at least one wet season (2019/20) to determin the effectiveness of both the wet season cover and the low-air-permeability barriers. PAF (RE) was selected for the cover system trial because it represents the most reactive material that will be encapsulated by the NOEF cover system."
89.c	89.c	Mine Levee revegetation.			1								N/A	Not Appli	cable		The Operator advised that this trial will not be proceeding. A trial has been identified as not required and the Operator intends to monitor the revegetation the NOEF itself (i.e. rather than doing a trial on the levee to inform the NOEF).
90	90	The Operator must ensure all contaminated runoff is contained and managed within the water management circuit and as detailed in the Water Management Plan.			1			1					4	Full Compl		Trials are all on the NOEF that drains to the water management system so all potentially contaminated runoff is contained.	The Operator advised that the NOEF rehab trial area runoff all drains to within tho n site water management system.
Bing Bong Loading Fa	Bing Bong Loading	Facility															
		Dredging activities at the Bing Bong Port Facility are authorised, subject to:														Correspondence between Operator and DITT relating to VOA 0059 - Dredging and Dredge Spoil Management Plan.	The Operator advised "No dredging activities have occurred at Bing Bong Loading Facility during the audit period."
91	91													Refer to condition		The Operator outlines that no dredging activities have occurred at Bing Bong Loading Facility during the audit period.	In February 2023 the Operator submitted a Dredging and Dredge Spoil Management Plan to DITT, a copy of the correspondence and submission is provided. This is for short term requirements.
		submission to the department of a Dredging and Dredge Spoil Management Plan;														Correspondence between Operator and DITT relating to VOA 0059 - Dredging and Dredge Spoil Management Plan.	The Operator advised "No dredging activities have occurred at Bing Bong Loadin Facility during the audit period."
91.a	91.a										1		N/A	Not Appli	cable		In February 2023 the Operator submitted a Dredging and Dredge Spoil Management Plan to DITT, a copy of the correspondence and submission is provided. This is for short term requirements.
91.b	91.b	approval of the Plan by the Department prior to commencement of dredging.									1		N/A	Not Appli	cable		The Operator advised "No dredging activities have occurred at Bing Bong Loading Facility during the audit period." The submitted Dredging and Dredge Spoil Management Plan had not been approved audit period.
Environmental Monit		nitoring and Management Environmental monitoring for the McArthur River Mine site (including														EMR 2021-2022 dated 31Aug2022.	Additional evidence is provided under the individual conditions from Schedule D.
92		BBLF) must be undertaken in accordance with requirements in Schedule D and reported as part of Condition 9.	1										4	Full Compl		EMR 2022-2023 dated 31Aug2023. Environmental monitoring is discussed in the EMR 2021-2022 and EMR 2022-2023 and includes BBLF.	
Adaptive Manageme		Within 12 months of the date of authorisation of the Overburden Management Project, the Operator must submit a revised AMP as required under Conditions 45.														Correspondence between DITT and Operator relating to MRM Amended Adaptive Management Plan (November 2021) confirmed approval. August 2022.	The Operator submitted two iterations of the AMP as stated below, which comp with the 12-month timeframe under Condition 93: • Amended AMP (version: 31 March 2021, AMP-C) and supporting information -
93	93		1										4	Full Compl	liance	DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	submitted 23 June 2021 • Amended AMP (version: 1 October 2021, AMP-D) and supporting information - submitted 13 November 2021.
04	04	The revised AMP must:												Refer to	sub		
94	94													conditio	nns		

Authorisation Co	mpliance Workb	ook - Operator				>_		v							Evidence 2023	Comments 2023
		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facilit	Water Management and Storages	Overburden Emplacement Facilitie	Exploration	Waterways (including river diversion)	Bing Bong Loading	Facility	Score	Compliance Level	Evidence 2023	Comments 2023
94.a	94.a	address the comments from the Independent Monitor or independent third party review of the draft AMP and ensuring compliance with Condition 45;	1										4	Full Compliance	Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021) confirmed approval. DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. AMP-Revision E addresses the comments from the Independent Monitor review including additional sections or text in: Section 3.4 Risk; Section 4.1 Environmental Management Strategy; Section 4.3 Environmental Monitoring Programs; Section 5.1 TARP Overview; Table 7 Environmental Objectives and Associated Environmental Smart Performance Criteria Triggers and Section 5.3.1 Level 3 Investigation Report and Assessment Against Environmental Objective.	
94.b	94.b	be consistent with the AMP required under the Waste Management and Pollution Control Act 1998 and Environment Protection and Biodiversity Conservation Act 1999;	1										4	Full Compliance	Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021) confirmed approval. DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP. The AMP is the same document that is submitted to DEPWS under the WDL although some appendices (e.g., Rehabilitation Plan) are not relevant to the WDL and therefore not submitted to DEPWS. The AMP is therefore consistent (although appendices submitted are not identical) and compliant with the requirements of this condition. Revisions of the AMPs have been submitted to DEPWS (NT) and DCCEEW (Commonwealth) in accordance with legislative requirements.	
94.c	94.c	be reviewed by a Department approved independent third-party at the discretion of the Minister;	1										N/A	Not Applicable	No DITT requests for independent third-party AMP review. However, an independent review of AMP-Revision C was conducted in response to a requirement under the Waste Discharge Licence (WDL) and finalised in March 2021. A copy of the independent review by the University of Queensland, Sustainable Minerals Institute was provided to DITT.	
94.d	94.d	be approved by the Minister;	1										4	Full Compliance	Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021) confirmed approval. DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	

Authorisation Co	mpliance W <u>or</u>	kbook - Operator														
					Pun	ility		ties		B _L					Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		n Condition/Requirement	Governance/Genera	Von-mineral Waste Vlanagement	Open Pit/Undergrou Workings	Tailings Storage Fac	Water Managemeni and Storages	Overburden Emplacement Facilit	Exploration	Waterways (includir iver diversion)	3ing Bong Loading	acility	Score	Compliance Level		
		once approved, be implemented in full.					_ ()									Evidence of implementation already is evident as stated in the email submission
															Management Plan (November 2021). EMR 2022-2023 dated 31Aug2023.	Operator to DITT (MRM DITT Data Q3) "The frequency of fluvial sediment sampling at FS03, FS19 and FS20 has been increased to quarterly, as required under Level 2b of the fluvial sediment TARP outlined in Table 8 of the Adaptive Management Plan (October 2021 version). Fluvial sediment results from September 2021 have been provided."
94.e	94.e		1										4	Full Compliance	EMR 2022-2023 states "For the current reporting period, 111 mid-stage plots and 18 early-stage plots were surveyed. The field survey, data collection and assessment were undertaken as per MRM's 2021-2023 RMP and AMP TARP." and "The overarching objectives are supplemented by performance indicators and associated environmental triggers detailed in the AMP and sub-management plans. Monitoring data collected under the AMP during the reporting period is analysed by expert specialists to determine the Mine's environmental performance against the aforementioned environmental objectives. Over the reporting period, monitoring, management and reporting at the Mine was conducted in accordance with the AMP."	
95	95	Any material changes to the AMP required by Condition 94 must be reapproved by the Minister.	1										4	Full Compliance	Correspondence between DITT and Operator relating to Amended Adaptive Management Plan (November 2021) - approval.	
Mine Closure	Mine Closure															
96	96	From the date of authorisation of the Overburden Management Project, the Operator must submit an updated Mine Closure Plan with each MMP that builds upon the closure concepts defined in the Overburden Management Project.	1										N/A	Not Applicable	Correspondence between Operator and DITT relating 2022-2023 EMR Submission dated 31Aug2023. The 2022-2023 EMR Submission Letter states that: "Latest Unplanned Closure Plan submitted to accompany the MMP amendment approved via correspondence from the Department dated 17May2023." (after the audit period).	Revised MMP with minor changes was submitted May 2023 (outside the audit period).
97	97	The Mine Closure Plan required under Condition 96 must:												Refer to sub conditions		Future item. No MMPs in the audit period so the trigger for the Mine Closure Plan has not occurred.
97.a	97.a	detail how key mine domains will be rehabilitated to achieve the Overburden Management Project closure objectives;	1										N/A	Not Applicable		Future item. No MMPs in the audit period so the trigger for the Mine Closure Plan has not occurred.
97.b	97.b	address outcomes of the reviews by independent technical and closure panels in accordance with Condition 21 with respect to mine closure;	1										N/A	Not Applicable		Future item. No MMPs in the audit period so the trigger for the Mine Closure Plan has not occurred.
97.c	97.c	incorporate relevant outcomes from rehabilitation trials defined in Condition 89.	1										N/A	Not Applicable		Future item. No MMPs in the audit period so the trigger for the Mine Closure Plan has not occurred.
98	98	Five years prior to the planned closure of the mine, the Operator must:												Refer to sub conditions		Future item. Mine closure more than 5 years away.
98.a	98.a	finalise the Mine Closure Plan required under Condition 96;	1										N/A	Not Applicable		Future item. Mine closure more than 5 years away.
98.b	98.b	submit to the Department the plan for approval by the Minister;	1										N/A	Not Applicable		Future item. Mine closure more than 5 years away.
98.c	98.c	following approval, the Mine Closure Plan must be implemented by the Operator in full.	1										N/A	Not Applicable		Future item. Mine closure more than 5 years away.
Unplanned Mine Clos	Unplanned Mine	Closure														

Authorisation Co	mpliance Work	book - Operator				>		10							Evidence 2023	Comments 2022
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	raciiity	Score	Compliance Level	Evidence 2023	Comments 2023
99	99	From the date of authorisation of the Overburden Management Project, the Operator must annually submit to the Department an Unplanned Mine Closure Plan on or before 31 August, starting 2021, to the Department, which is accompanied by a related security estimate.	1										4	Full Compliance	2023 UCP Submission. MRM Security Calculation 2023 Final 30Sep2022. MRM Security Calculation 2023 Supporting GIS. MRM Security Calculation 2023 Final 2022 Comparison 30Sep2022. Correspondence between Operator and DITT relating to DITT Updated UCP and Independent Security Assessment. Correspondence between Operator and DITT relating to 2023 Unplanned Closure Plan and Security Assessment. Correspondence between Operator and DITT relating to 2022 Unplanned Closure Plan.	Evidence of submission of the 2023 Unplanned Closure Plan on 30 September 2022 to the Department is provided. An extension of the due date was granted by the Department, email correspondence provided as evidence.
Independent Monitor	Independent Monit	toring Assessment Conditions The Operator must comply with the clauses pertaining to it in														Assessed through individual conditions in Schedule C.
100	100	SCHEDULE C - INDEPENDENT MONITORING ASSESSMENT CONDITIONS.	1										N/A	Not Applicable		Todasca till dag. Hanilada tahanan manacaac di
SCHEDULE C - Indeper	SCHEDULE C - Inde	pendent Monitoring Assessment Conditions														
Schedule C - 1	Schedule C - 1	The purpose of the McArthur River Mine – Independent Monitoring Assessment Conditions" is to establish and set out the operational requirements for an independent monitoring assessment of the environmental performance of the Mine.												-		Commentary only.
Schedule C -2	Schedule C -2	These Conditions may be cited as the "McArthur River Mine – Independent Monitoring Assessment Conditions".												-		Commentary only.
Schedule C -3	Schedule C -3	The purpose of these Conditions is to establish and set out the operational requirements for an independent monitoring assessment of the environmental performance of the Mine.												-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -4	Schedule C -4	The Department will engage an Independent Monitor to undertake the independent monitoring assessment.												-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -5	Schedule C -5	The Operator and the Department acknowledge that this independent monitoring assessment is in addition to their respective obligations and statutory responsibilities in relation to the Mine.	1										4	Full Compliance		The Operator has participated in the Independent Monitor assessment in addition to their respective obligations and statutory responsibilities.
Schedule C -6	Schedule C -6	The Independent Monitor will:												-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -6.a	Schedule C -6.a	monitor the environmental performance of the Mine by reviewing:												-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -6.a.i	Schedule C -6.a.i	environmental assessments and monitoring activities undertaken by the Operator; and												-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -6.a.ii	Schedule C -6.a.ii	environmental assessments and audits undertaken by the Department; and												-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -6.b	Schedule C -6.b	report to the Operator and the Department any urgent issues requiring investigation and reporting.												-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -7		The Independent Monitor will not review:												-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -7.a Schedule C -7.b	Schedule C -7.a Schedule C -7.b	Mine safety; or social issues arising from the operation of the Mine in the McArthur River Region.												-		These Independent Monitor conditions are not relevant to the Operator. These Independent Monitor conditions are not relevant to the Operator.
Schedule C -8	Schedule C -8	The Department will engage an Independent Monitor in accordance with its procurement processes.												-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -9	Schedule C -9	The Independent Monitor may be (in order of preference): a. an environmental or mining agency in another jurisdiction in a Australia; or b. university having the necessary expertise; or c. an environmental consultant have the necessary expertise, relevant experience and the necessary resources.												-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -10	Schedule C -10	Prior to advertising a tender seeking to engage an Independent Monitor, the Department must provide the Operator with a copy of the proposed tender documentation, including:														These Independent Monitor conditions are not relevant to the Operator.
Schedule C -10.a	Schedule C -10.a	5,												-		These Independent Monitor conditions are not relevant to the Operator.
Schedule C -10.b Schedule C -10.c		the scope of services; and the assessment criteria; and		1										-		These Independent Monitor conditions are not relevant to the Operator. These Independent Monitor conditions are not relevant to the Operator.
Schedule C-10.C	Jonedale C-10.C	and assessment effectial and		1												mose independent monitor conditions are not relevant to the operator.

Authorisation Co	mpliance Workb	oook - Operator													
	Condition No.	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility	Sc	core	Compliance Level	
Schedule C -10.d	Schedule C -10.d	the Conditions of contract.												-	These Independent Monitor conditions are not relevant to the Operator.
Schedule C -11	Schedule C -11	The Operator may, within 14 days of receiving the proposed tender documentation, provide comment on the proposed documentation to the Department and the Department must consider any comments provided by the Operator on the proposed documentation prior to advertising the tender.	1										4	Full Compliance	The extension of the Independent Monitor contract was provided by DITT to to Operator. The Operator did not raise any comments.
Schedule C -12	Schedule C -12	The Department must provide the Community with an opportunity to provide submissions on the engagement of the Independent Monitor and the Department must consider any submissions provided by the Community on the engagement of the Independent Monitor prior to advertising the tender.										П		-	These Independent Monitor conditions are not relevant to the Operator.
Schedule C -13	Schedule C -13	The terms of engagement of the Independent Monitor may include the following:												-	These Independent Monitor conditions are not relevant to the Operator.
Schedule C -13.a	Schedule C -13.a	a period of engagement between three and five years;												-	These Independent Monitor conditions are not relevant to the Operator.
Schedule C -13.b	Schedule C -13.b	a statement acknowledging that the Operator is responsible for the												_	These Independent Monitor conditions are not relevant to the Operator.
		costs of the Independent Monitor;													**************************************
Schedule C -13.c	Schedule C -13.c	a warranty by the Independent Monitor that it will: act independently of the Department, the Operator, the Minister											_	-	These Independent Monitor conditions are not relevant to the Operator. These Independent Monitor conditions are not relevant to the Operator.
Schedule C -13.c.i	Schedule C -13.c.i	and any other person; and												-	
Schedule C -13.c.ii	Schedule C -13.c.ii	act honestly, reasonably and with the degree of professional care, knowledge, experience, skill and diligence which may reasonably be expected; and												-	These Independent Monitor conditions are not relevant to the Operator.
Schedule C -13.c.iii	Schedule C -13.c.iii	act within the time prescribed under these Conditions, the terms of engagement, or where no time is prescribed, within a reasonable time; and												-	These Independent Monitor conditions are not relevant to the Operator.
Schedule C -13.c.iv	Schedule C -13.c.iv	immediately notify the Department in writing upon becoming aware of the existence or possibility of a conflict of interest;												-	These Independent Monitor conditions are not relevant to the Operator.
Schedule C -13.d	Schedule C -13.d	an obligation on the Independent Monitor to keep all information provided to the Independent Monitor confidential.												-	These Independent Monitor conditions are not relevant to the Operator.
Schedule C -14	Schedule C -14	If the Independent Monitor requires an indemnity, the Operator must enter into a binding agreement providing a reciprocal indemnity to the Department.	1									N	I/A	Not Applicable	The Independent Monitor did not require an indemnity.
Schedule C -15	Schedule C -15	The Department must notify the Operator of the appointment of the Independent Monitor and must provide the Operator with a copy of the terms of engagement.												-	These Independent Monitor conditions are not relevant to the Operator.
Schedule C -16	Schedule C -16	The Operator and the Department must not interfere or attempt to influence the Independent Monitor in its assessment of environmental performance under these Conditions.	1										4	Full Compliance	The Operator has not interfered or attempted to influence the Independent Monitor.
Schedule C -17	Schedule C -17	The Operator and the Department must each:												Refer to sub conditions	Provided for context of the subconditions.
Schedule C -17.a	Schedule C -17.a	cooperate with the Independent Monitor; and	1										4	Full Compliance	The Independent Monitor confirms that the Operator cooperated with the Independent Monitor.
Schedule C -17.b	Schedule C -17.b	provide all necessary information and documents within their possession, custody or control to the Independent Monitor; and	1										4	Full Compliance	The Independent Monitor confirms that the Operator provided all necessary
Schedule C -17.c	Schedule C -17.c	procure for the Independent Monitor access to such premises owned, leased, or licensed by it as may be reasonably necessary,	1										4	Full Compliance	An Independent Monitor site visit was undertaken in June 2022 and March 20
Schedule C -17.d	Schedule C -17.d	to enable the Independent Monitor to undertake its assessment of environmental performance under these Conditions.	1										4	Full Compliance	The Independent Monitor confirms that the Operator enabled the Independent Monitor to undertake their assessment.
Schedule C -18	Schedule C -18	The Independent Monitor must engage with the Operator, the Department and the Community in undertaking the independent monitoring assessment.												-	Not included as there is no requirement for the Operator. This is an Independ Monitor requirement only.
Schedule C -19	Schedule C -19	If the Independent Monitor identifies an issue it considers requires urgent investigation and reporting:	1											Refer to sub conditions	The Independent Monitor did not identify any issue it considered required urg investigation and reporting during the audit period.
Schedule C -19.a	Schedule C -19.a	the Independent Monitor must advise the Operator and the Department of the issue as soon as practicable and may include recommendations as to action to be taken; and												-	Not included as there is no requirement for the Operator.

Authorisation Cor	mnliance Work	nook - Operator													
Authorisation Col	inpliance works	Jook - Operator			ē	<u>:£</u>		es	bū					Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	overnance/General	on-mineral Waste anagement	pen Pit/Undergroui orkings	illings Storage Facili	ater Management Id Storages	verburden nplacement Faciliti	ploration aterways (including	rer diversion) ng Bong Loading	ıcility	Score	Compliance Level		
Schedule C -19.b	Schedule C -19.b	the Operator must consider the advice, and any recommendations, from the Independent Monitor and notify the Department and the Independent Monitor of the action the Operator proposes to take; and	1	žΣ	5 ≥	E T	a W	Q H	ă > :	iā iā	Fa	N/A	Not Applicable		The Independent Monitor did not identify any issue it considered required urgent investigation and reporting during the audit period.
Schedule C -19.c	Schedule C -19.c	the Department may, where appropriate, advise the Operator and the Independent Monitor of action the Department proposes to take; and											-		Not included as there is no requirement for the Operator.
Schedule C -19.d	Schedule C -19.d	the Independent Monitor may provide further advice to the Operator, and where appropriate the Department, regarding the proposed action and the Operator and the Department must consider the further advice; and	1									N/A	Not Applicable		The Independent Monitor did not identify any issue it considered required urgent investigation and reporting during the audit period.
Schedule C -19.e	Schedule C -19.e	if, after providing further advice, the Independent Monitor is not satisfied with the proposed action, the Independent Monitor may notify the Operator and the Department of the Independent Monitor's intention to undertake its own investigation and report; and											-		Not included as there is no requirement for the Operator.
Schedule C -19.f	Schedule C -19.f	the Operator and the Department must facilitate the Independent Monitor's investigation and report.	1									N/A	Not Applicable		The Independent Monitor did not identify any issue it considered required urgent investigation and reporting during the audit period.
Schedule C -20	Schedule C -20	The independent monitoring assessment is to be conducted, where practical, in a manner that complements the existing annual environmental assessment and audit processes undertaken by the Operator and the Department.											-		Not included as there is no requirement for the Operator. This is an Independent Monitor requirement only.
Schedule C -21	Schedule C -21	The Independent Monitor must prepare and provide a report:											-		Not included as there is no requirement for the Operator. This is an Independent Monitor requirement only.
Schedule C -21.a	Schedule C -21.a	annually to the Minister to assist with the review of the Mining Management Plan; and											-		Not included as there is no requirement for the Operator.
Schedule C -21.b	Schedule C -21.b	on request by the Minister.											-		Not included as there is no requirement for the Operator.
Schedule C -22	Schedule C -22	The Minister must provide a report received from the Independent Monitor to the Operator and the Department within 14 days of receiving the report.											-		Not included as there is no requirement for the Operator.
Schedule C -23	Schedule C -23	The Independent Monitor must prepare an additional report in a form suitable for distribution to the Community.											-		Not included as there is no requirement for the Operator.
Schedule C -24	Schedule C -24	The Operator and the Department acknowledge that the report from the Independent Monitor will be made publicly available (including publication on an appropriate internet site) and may include data used in the preparation of the report.	1									4	Full Compliance	Independent Monitor Report (AEPAR) made publicly available by posting on DITT website (viewed by Independent Monitor on 3May2023). https://industry.nt.gov.au/publications/mining-and-energy/public-environmental-reports/mining/mcarthur-river-independent-monitor. Correspondence between DITT and Operator relating to Annual Environmental Performance Audit Report 2022 Period 1 May 2021 to 30 April 2022.	
Schedule C -25	Schedule C -25	Prior to being made publicly available, the Minister must request from the Operator and the Department any comments on the Independent Monitor's report. Such comments must be provided within 28 days of the Minister's request and must be made publicly available with the Independent Monitor's report.	1									4	Full Compliance	Correspondence between DITT and Minister. Correspondence between Operator and Minister subject MRM Response to 2021-2022 Independent Monitor Report - letter to Minister Manison. Minister's request letter was sent on 27Nov2022, therefore comments from both DITT and Operator were submitted within 28 days.	Request from the Minister and response from Operator and DITT were within 28 days from the request.
Schedule C -26	Schedule C -26	The Operator acknowledges that it is responsible for all costs of the independent monitoring assessment other than those costs directly attributable to those elements of the independent monitoring assessment associated with Condition 21(b)) which are the responsibility of the Department.	1									4	Full Compliance		The Operator has paid the DITT invoices.
Schedule C -27	Schedule C -27	The Department may provide to the Operator, from time to time, a notice setting out amounts due and payable under the terms of the engagement of the Independent Monitor.											-		Not included as there is no requirement for the Operator.
Schedule C -28	Schedule C -28	The Operator must pay an amount notified in accordance with Condition 27 within seven (7) days of receiving such notice.	1									4	Full Compliance	The operator made payment against DITT invoices consistent with NTG procurement timeframes.	DITT advised there have been no issues with payment. OBS: DITT invoices require payment in a month rather than within seven days of receipt as stated in this condition, this longer timeframe appears acceptable and should be amended.

Authorisation Cor	npliance Workb	oook - Operator														
	18 June 2021 Authorisation Condition No.	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	raciiity	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule C -29		If the Operator disputes a notice provided by the Department under												Refer to sub conditions		Provided for context of the subconditions.
Schedule C -29.a	Schedule C -29.a	Condition 27: the Operator must pay the amount specified in the notice in accordance with Condition 28; and	1									-	N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -29.b	Schedule C -29.b	the Operator must notify the Department in writing within 14 days of receiving the notice, setting out the reasons why the Operator	1										N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -29.c	Schedule C -29.c	disputes the notice; and the Chief Executive of the Operator and the Chief Executive of the Department must meet within five (5) working days to resolve the dispute.	1										N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -30	Schedule C -30	If there is a dispute (other than a dispute mentioned in Condition 29) between the Operator and the Department as to any matter or thing arising out of these Conditions (the "Dispute"), the party claiming that a Dispute has arisen must notify the other party to the Dispute and the Chief Executive of the Operator, the Chief Executive of the Department and the Independent Monitor must meet within five (5) working days to resolve the Dispute.	1										N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -31	Schedule C -31	If the Chief Executive of the Operator, the Chief Executive of the Department and the Independent Monitor are unable to resolve a Dispute within ten (10) working days of meeting in accordance with Condition 30, the Operator and the Department may agree to the appointment of an independent party to assist in the resolution of the Dispute.	1										N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -32	Schedule C -32	If, within five (5) working days of either the Operator or the Department nominating a person to be the independent party, no agreement is reached as to who is to be appointed as the independent party, either the Operator, the Department or both may refer the matter to the President of the Law Society of the Northern Territory.	1										N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -33		The President of the Law Society Northern Territory may nominate a person to be the independent party and the parties to the Dispute are bound to accept the appointment of that person.	1										N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -34		The role of the independent party is to assist in negotiating a resolution of the Dispute and the independent party cannot make a decision that is binding on either the Operator or the Department.	1										N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -35		The Operator and the Department must make available to the independent party all materials requested by it and must provide the independent party with all other materials relevant to the Dispute.	1										N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C -36	Schedule C -36	The Operator and the Department must:												Refer to sub		Provided for context of the subconditions.
Schedule C - 36.a	Schedule C - 36.a	Bear their own costs of resolving the Dispute under this Condition; and	1										N/A	conditions Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
Schedule C - 36.b		Bear equally the costs of any independent party engaged.	1										N/A	Not Applicable		The Independent Monitor is not aware of any disputes in the audit period.
SCHEDULE D - ENVIRO Schedule D - 1	Schedule D - 1	RONMENTAL MONITORING AND MANAGEMENT If the Operator establishes a new surface water monitoring location, a written notice of the location (in GDA 94 format) and nature of the monitoring must be given to the Department within 30 days of its establishment.					1			1			N/A		EMR 2022-2023 dated 31Aug2023. No evidence of any new surface water monitoring locations was observed by the Independent Monitor in the EMR 2022-2023.	The Operator advised that no new surface water monitoring locations were requested.
Schedule D - 2	Schedule D - 2	The Operator must maintain continuous monitoring having regard to:								1			4	Full Compliance	Surface Water Loggers Mastersheet. Memo WRM to Operator subject: Continuous surface water data quality assurance/quality control dated 27Jul23. Loggers were in place for the monitoring period. Success rates varied with only 57% data capture for SW09 and 19% data capture for SW31.	

Authorisation Co	mpliance Wo <u>r</u> kb	ook - Operator													
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration Waterways (including	river diversion)	Bing Bong Loading Facility	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule D - 2.a	Schedule D - 2.a	devices installed at the following locations:											Refer to sub conditions		
Schedule D - 2.a.i	Schedule D - 2.a.i	SW29 (upstream Surprise Creek outside the zone of influence of TSF);								1		4	Full Compliance	SW Loggers Master. A logger was installed at SW29 to measure EC.	
Schedule D - 2.a.ii	Schedule D - 2.a.ii	SCGS (Surprise Creek gauge station between the TSF and the Mine);								1		4	Full Compliance	SW Loggers Master. Memo WRM to Operator subject: Continuous surface water data quality assurance/quality control dated 27Jul23 A logger was installed at SCGS (SW02) to measure EC.	SW02 (SCGS)
Schedule D - 2.a.iii	Schedule D - 2.a.iii	SW30 (upstream Emu Creek);								1		4	Full Compliance	SW Loggers Master. A logger was installed at SW30 to measure EC.	
Schedule D - 2.a.iv	Schedule D - 2.a.iv	USGS (upstream at the McArthur River gauge station);							:	1		4	Full Compliance	SW Loggers Master. A logger was installed at USGS (SW10) to measure EC.	
Schedule D - 2.a.v	Schedule D - 2.a.v	BCGS (upstream at the Barney Creek gauge station);							:	1		4	Full Compliance	SW Loggers Master. A logger was installed at BCGS (SW04) to measure EC.	SW04 (BCGS)
Schedule D - 2.a.vi	Schedule D - 2.a.vi	SW12 (immediately downstream of the Mine capturing outflow from Emu Creek, Barney Creek, drainage lines from SEPROD, Old McArthur River Channel and the McArthur River diversion channel but before the Glyde River joins the McArthur River channel);							:	1		4	Full Compliance	SW Loggers Master. A logger was installed at SW12 to measure EC.	
Schedule D - 2.b	Schedule D - 2.b	devices must at a minimum measure electrical conductivity, and may measure additional parameters such as pH;								1		4	Full Compliance	SW Loggers Master. Devices that measure EC were installed at the required locations.	
Schedule D - 2.c	Schedule D - 2.c	the Operator must from 30 August 2017 include data from these devices in data submission under Condition 7 of Schedule A.	1							1		4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator relating to acknowledgment of receipt of the annual data package. Correspondence between Operator and DITT relating to DITT Annual Data Submission (this is for data from 1May2021 to 30Apr2022). Continuous monitoring was included in the annual data submitted in the audit period.	
Schedule D - 3		From the date of authorisation of the Overburden Management Project the Operator must install and manage the following gauging stations at:											Refer to sub conditions		
Schedule D - 3.a	Schedule D - 3.a	Emu Creek;								1		3	Part Compliance	Correspondence between AAPA and Operator relating to ISSUE OF AUTHORITY CERTIFICATE FOR GAUGING STATIONS - 202104614 (after the audit period). Surface Water Loggers Mastersheet. Photo: SW31. Photo: SW31b. Memo WRM to Operator subject: Continuous surface water data quality assurance/quality control dated 27Jul23. Gauging station is not yet constructed. Given the AAPA was received in August 2022 further progress would be expected on this given it has been a previous compliance issue. Loggers data capture was 19% and therefore not sufficient to be considered a replacement for a gauging station. No logger data was available for the wet season from 5Dec2022 onwards.	The Operator advised that the permanent gauging stations are yet to be constructed at Emu Creek and Glyde River, however the internal expenditure requests have been approved and are planning to install these stations over the current dry season. The Operator was in the process of ordering the equipment for the new gauging stations in February 2023. Two loggers have been deployed at each of the locati during the audit period. OFI: Construct the permanent gauging stations on Emu Creek and the Glyde Rive now that approvals have been received.

Authorisation Co	mpliance Workb	ook - Operator			_										Friday 2022	Community 2022
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation Condition No.	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	الانامة Storage Facilitر	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading	Facility	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule D - 3.b	Schedule D - 3.b	Glyde River.								1			3	Part Compliance (High)	Correspondence between AAPA and Operator relating to ISSUE OF AUTHORITY CERTIFICATE FOR GAUGING STATIONS - 202104614 (after the audit period). Surface Water Loggers Mastersheet. Photo: SW09. Memo WRM to Operator subject: Continuous surface water data quality assurance/quality control dated 27Jul23. Gauging station is not yet constructed. Given the AAPA was received in August 2022 further progress would be expected on this given it has been a previous compliance issue. Loggers data capture was 57% and therefore not sufficient to be considered a replacement for a gauging station. Wet season data was not provided prior to 20 November 2022 and after 3 March 2023.	The Operator advised that the permanent gauging stations are yet to be constructed at Emu Creek and Glyde River, however the internal expenditure requests have been approved and are planning to install these stations over the current dry season. The Operator was in the process of ordering the equipment for the new gauging stations in February 2023. Two loggers have been deployed at each of the locations during the audit period. Note that the loggers installed in the Glyde River were destroyed during a bushfire in 2022. New loggers were deployed in November, however there is a gap in the data at this location as a result. OFI: Refer to condition Schedule D - 3.a.
Schedule D - 4	Schodulo D. 4	The Operator must ensure groundwater monitoring bores and extraction bores are constructed, maintained and decommissioned in compliance with the document entitled Minimum construction requirements for water bores in Australia published by the National Uniform Drillers Licensing Committee (third edition, February 2012 or a current version of the document). In this regard:	1										4	Full Compliance	EMR 2022-2023 dated 31Aug2023. 2022-2023 Hydrogeological Drilling and Field Campaign dated 26Jun2023 (after audit period but relevant to the audit period). 2022/2023 Hydrogeological Drilling and Field Campaign dated 26Jun2023 stated "All groundwater bores were constructed in accordance with the Minimum Construction Requirements for Water Bores in Australia (NUDLC, 2020)."	No mention of the groundwater monitoring bores and extraction bores being maintained or decommissioned in accordance with the Minimum construction requirements for water bores in Australia published by the National Uniform Drillers Licensing Committee. OBS: Evidence that groundwater monitoring bores and extraction bores are maintained and decommissioned in accordance with the minimum construction requirements for water bores in Australia, published by the National Uniform Drillers Licensing Committee, should be provided to confirm compliance with this condition.
Schedule D - 4.a	Schedule D - 4.a	construction logs and bore location coordinates in GDA 94 format must be available to the Minister on request and provided to the Minister annually in the EMR;	1										4	Full Compliance	EMR 2021-2022 dated 31Aug2022. EMR 2022-2023 dated 31Aug2023. 2021 HYDROGEOLOGICAL DRILLING AND FIELD CAMPAIGN. 2022-2023 Hydrogeological Drilling and Field Campaign dated 26Jun2023 (after audit period but relevant to the audit period). For the five bores drilled in the 2021-2022 audit period, bore coordinates are in Table 3-1 of the 2021 HYDROGEOLOGICAL DRILLING AND FIELD CAMPAIGN, which is part of the EMR submitted in the audit period. Borelogs are included in the 2021 2022 EMR that was submitted in the audit period. Table 3-1 within the 2022-2023 Hydrogeological Drilling and Field Campaign includes the newly constructed bore coordinates. The borelogs are also included.	The Operator advised that there were no requests by the Minister in the audit period.
Schedule D - 4.b	Schedule D - 4.b	logs of maintenance activities must be kept available to the Minister on request;	1										N/A	Not Applicable	EMR 2021-2022 dated 31Aug2022. EMR 2022-2023 dated 31Aug2023. 2022-2023 Hydrogeological Drilling and Field Campaign dated 26Jun2023 (after audit period but relevant to the audit period). The Hydrogeological Drilling and Field Campaign Report does not contain evidence that maintenance was completed on bores GW SS2-1, GW180113, GW180165 and GW19051. 2022-2023 EMR does not mention maintenance activities relating to groundwater bores.	The Operator advised that there were no requests for logs of maintenance activities by the Minister in the audit period. OBS: There appear to be bores that are damaged and unserviceable that should be maintained to keep the monitoring bores available for monitoring. In the event they can't be used, perhaps they should be maintained, rehabilitated (to repair a bore that has failed) or decommissioned.

	1:														
Authorisation Col 5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	ook - Operator Condition/Requirement	overnance/General	Von-mineral Waste Management	Open Pit/Underground Vorkings	ailings Storage Facility	Vater Management nd Storages	Overburden mplacement Facilities	xploration	Vaterways (including iver diversion)	ing Bong Loading acility	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule D - 4.c	Schedule D - 4.c	logs of bore decommissioning activities must be kept and available to the Minister on request and reported in the Operator's Annual EMR.	1	22			N			> L		4	Full Compliance	EMR 2021-2022 dated 31Aug2022. EMR 2021-2023 dated 31Aug2023. 2022-2023 Hydrogeological Drilling and Field Campaign dated 26Jun2023 (after audit period but relevant to the audit period) Section 3 of the 2022-2023 Hydrological Drilling and Field Campaign states "Within the 2022-2023 reporting period there was a total of eight monitoring groundwater bores and two Vibrating Wire Piezometers (VWPs) decommissioned due to ongoing pit expansion and NOEF expansion." and lists that only 2 out of 10 of the groundwater bores decommissioned in 2022/2023 have decommissioning logs (no decommissioning logs for bores that were decommissioned for pit expansion (i.e., mined through), only NOEF expansion, which is acceptable). Section 4.3.2 of the 2021-2022 EMR submitted in the audit period states that: "No monitoring bores were decommissioned across the Mine during the reporting period."	3
Schedule D - 5		The Operator must take appropriate action to reduce the risk to mining operations associated with livestock on the adjoining pastoral property by maintaining an Exclusion Area and managing livestock as appropriate in consultation with the Chief Veterinary Officer.	1									4		2018-2019 cattle management plan was submitted in the January 2020 MMP, which was not approved until 13Nov2020. MRM Aerial muster-inspections register. MRM Cattle management fence line inspections register. EMR 2022-2023 dated 31Aug2023. Cattle Muster/Aerial Inspection Register shows four musters undertaken from 16Jun2022 to 7Sep2022 where animals were sighted and where required, destroyed. Cattle Management Fence Line Inspections Register shows eight inspections (including repair where relevant) in the audit period. The 2022-2023 EMR states "MRM undertook eight cattle musters during the reporting period, in addition to weekly inspections and maintenance of the cattle exclusion fencing." and "In total, eight cattle musters were undertaken during the reporting period. As per the Cattle Management Plan, weekly inspections of the cattle exclusion zone fence were also undertaken throughout the dry season, and repairs completed as required. " Table 13 of the 2022-2023 EMR details the Cattle Management objective as well as work completed during the audit period to achieve this objective which includes musters and weekly inspections of the cattle exclusion fence. The Cattle Management Fence Line Inspections Register provided evidence that approximately weekly inspections were performed in the dry season during the audit period.	
Schedule D - 6	Schedule D - 6	From the date of authorisation of the Overburden Management Project the Operator must undertake monitoring in accordance with the following Environmental Management Plans approved in the MMP:											Refer to sub conditions		
	Schedule D - 6.a	Dust Management Plan;	1									N/A	Not Applicable		There was no plan with this name in the approved MMP and therefore this subcondition is considered N/A. DITT has updated the Authorisation to remove reference to a Dust Management Plan. The Air Quality Management Plan is the relevant plan for dust management. Refer to condition Schedule D - 6.c.
Schedule D - 6.a		Adaptive Management Plan, which includes:											Refer to sub conditions		Adaptive Management Plan The AMP is a framework document and does not require monitoring specifically, but rather makes reference to monitoring contained within specific management plans such as the WMP, AQMP and RMP.

Authorisation Co 5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	ook - Operator Condition/Requirement	overnance/General	on-mineral Waste lanagement	pen Pit/Underground orkings	illings Storage Facility	ater Management nd Storages	verburden nplacement Facilities	cploration	aterways (including ver diversion)	ng Bong Loading	ıcility	ı	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule D - 6.a.i	Schedule D - 6.b	Water Management Plan	9				1			1		4		4	Full Compliance	SW29 Data Export 2022-2023. MRM Dam TARP summary table dated 17Jan2023 (rev 0, 23Dec2022). WMP stated "The TARPs are developed annually prior to wet season to reflect current conditions." The TARPs for wet season 2022-2023 have not been incorporated into the WMP and the versions provided as evidence appear to have been prepared after the wet season commenced.	Site SW29 was selected to confirm that the required monitoring had occurred and except for where access was not safe, weekly monitoring was evident. Continuous EC monitoring is audited under condition Schedule D -2. The Annual Groundwater Report includes the monitoring required by the WMP and Section 3.3.2 states constraints occurred. Section 4 of the Aquatic Fauna Monitoring Early Dry Season states: "The analysis detected no significant difference (p=0.1) in aquatic fauna assemblages between performance indicating sites and reference sites, demonstrating compliance with the AMP Level 1 trigger to continue monitoring and annual reporting (Table 11)." And then noted "equipment malfunction prevented the use of the electrofisher at Cattle Yard (site 17) and 8 Mile (site 18)." Bores GW124D, GW124S, GW119D, GW19065, GW19066, GW19067 are decommissioned as shown in the EMR 2020 - 2021 but remain included in the 2022/2023 Monitoring Schedule included in the 2022-2023 EMR. A Dam TARP summary for BBLF appears not to have been prepared in 2022. The first version of the Dam TARP summary for the Mine relevant to the 2022/2023 wet season is dated 23Dec2022. OBS: Revise TARPs annually prior to each wet season to ensure they are up to date and the WMP should be updated accordingly.
Schedule D - 6.a.ii	Schedule D - 6.c	Air Quality;	1											4	Full Compliance	Ambient Air Monitoring Report May 2022 - April 2023 dated 25Jul2023. EMR 2022-2023 dated 31Aug2023. Air Quality Management Plan dated 1Oct2021. Section 8.1.2 of the Ambient Air Monitoring Report states: "Table 8-2 and Table 8-3 present summaries of the annual average deposited dust and metal results respectively. There were insufficient data in the 2022-2023 EMR period (i.e. less than 75% data availability per calendar quarter) to calculate an annual average at DDG58 and DDG60 due to a lack of access to these monitoring locations for the las three months of the review period." Section 4 of the AQMP describes the 3 monitoring programs: SO2, HVAS and Deposited Dust Gauge. This section also outlines frequency of testing and methodology for each test, all of which are consistent with the monitoring discussed in the AAMR. Appendix A of the AAMR details the HVAS data from May 2022 to April 2023. It is noted that there are multiple instances where a period beyond 6 days passed without a recorded data reading. Appendix B of the AAMR details the SO2 Air Sampling Data from May 2022 to April 2023.	t

Authorisation Co	mpliance Workb	ook - Operator														
5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility	Score	. Co	ompliance Level	Evidence 2023	Comments 2023
Schedule D - 6.a.iii		Rehabilitation Management Plan	1									4	Ful	ll Compliance	Revegetation and Monitoring Report dated 23May2023. Riparian Bird Monitoring Early Dry Season Report dated 1Jun2023. Riparian Bird Monitoring Late Dry Season Report dated 16Jan2023. McArthur River and Barney Creek Revegetation Monitoring Report dated 23May2023. Rehabilitation Management Plan dated 31Mar2021. Section 2.2 of the Revegetation and Monitoring Report states: "The initial 20 early-stage revegetation plots were established in 2018 with the three-year inter-annual comparison undertaken in 2020. However, during the 2021 monitoring period, six of the 20 plots initially established in 2018 were again surveyed as they had previously experienced elevated levels of erosion and reduced seedling establishment. As 14 of the original 20 early-stage plots no longer required monitoring, an additional 12 early-stage plots were also established in 2021. Following on from the 2021 assessment, it was decided that the six plots initially established in 2018 no longer required monitoring." Section 3.2 of the Riparian Bird Monitoring Late Dry Season Report states "Riparian bird sampling was undertaken in November 2022 (1/11/2022 to 13/11/2022) during late dry season conditions."	diversion channels has been conducted annually since 2012 and continued in 2022." Section 9.2.3 of the RMP states: "Monitoring of rehabilitation will be conducted annually and will consist of an intensive data collection period (fieldwork), data analysis and reporting." Section 2.1 of the Acoustic Monitoring Program states: "During the 2022 period, array maintenance and downloading were undertaken in August (Figure 5), with all receivers located after the 2021/2022 wet season. However, hardware malfunctions occurred within the receivers at Lower McArthur River Diversion Channel, Cattle Yard and Kilgour River, which ceased recording at some point.
Schedule D - 6.b.		Waste Management Plan	1	1								4	Ful	ll Compliance	Environmental Monitoring Schedule Rev 3 dated 25Oct2022. EMR 2022-2023 dated 31Aug2023.	Section 8 of the Waste Management Plan details monitoring, which states: "Waste records are submitted to the Environment Department on a monthly basis and analysed against previous quarter's volumes. Any significant changes in volumes are investigated further with the respective department."
Schedule D - 6.c		NOEF Management Plan						1				4	Ful		ICE Endorsement of the NOEF Management Plan dated 23Jan2020. EMR 2022-2023 states "A summary of NOEF temperature monitoring program and resulting during the reporting period are provided in Appendix C."	Evidence of implementation is reflected in the ICE Design Reviews, Construction Reports and ITPs that are included in this audit workbook. The requirement for material tracking through use of a Global Positioning System (GPS) tracking system as required by the NOEF Management Plan was observed by the Independent Monitor during a site visit (e.g., Fleet Management System).
Schedule D - 6.d		BBLF Environment Management Plan									1	4	Ful	ll Compliance	BBLF EMP dated 31Mar2021. EMR 2022-2023 dated 31Aug2023. Metal and Metalloids in Near Shore Sediment BBLF Report dated 23May2023. Ambient Air Monitoring Report dated 25Jul2023. Section 4.4.1 of the EMR states: "Twenty-nine depositional dust gauges (23 near the Mine [including two control sites] and six near the BBLF [including one control site])." and this is equal to the requirements in the BBLF EMP. Section 8.2.1 of the AAMR describes the 4 Deposited Dust gauge BBLF monitoring sites which measure detectable concentrations of arsenic, cadmium, iron, lead, manganese and zinc mass fractions collected from the routine monthly BBLF dust gauge, and the results of these samples are listed in Appendix C of AAMR. This is equal to the requirements in the BBLF EMP.	Section 6 of the BBLF EMP outlines monitoring programs consisting of Surface Water, Groundwater, Depositional Dust, and Marine. Section 6.3 of the BBLF EMP states: "Depositional dust is monitored at five potential impact sites near or within operational areas, and one control site located 2 km southwest of the BBLF (Figure 5 and Appendix E). The sampling period is approximately one month (30 ±2 days)." Section 6.1 of the BBLF EMP states: "These monitoring programs are Surface water quality samples are collected in accordance with MRM Artificial Surface Water Monitoring Procedure (PRO-2200025)." Section 6.2 of the BBLF EMP states: "Groundwater quality samples are collected in accordance with MRM Groundwater Monitoring Procedure (PRO-2200024)." Section 6.4.2 of the BBLF EMP states: "The monitoring program consists of seven sampling zones which are presented in Figure 7, and listed in Appendix G. Data from the near shore sediment monitoring sites is collected annually, and samples are analysed for:"

Authorisation Co	mpliance Work	pook - Operator			Þ	<u>.</u>		Sa		bn					Evidence 2023	Comments 2023
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Undergrour Workings	Tailings Storage Facili	Water Management and Storages	Overburden Emplacement Facilitie	Exploration	Waterways (including river diversion)	Bing Bong Loading	Facility	Score	Compliance Level		
Schedule D - 6.e		Unplanned Closure Plan	1										4	Full Compliance	Unplanned Closure Plan dated Jan2023. EMR 2022-2023 dated 31Aug2023. The Unplanned Closure Plan references various monitoring as included in the WMP, AQMP and RMP, which are assessed under Schedule D Condition 6 - a. Unique to the UCP in terms of monitoring is that related to the rehabilitation trials. For example the Geosynthetic Liner Cover System Plan would be relevant but it is not approved. The EMR 2022-2023 discusses monitoring that is related to rehabilitation trials.	Any monitoring required post unplanned closure is not applicable as the site is operational.
	Schedule D - 6.d	Vegetation and terrestrial fauna;	1										N/A	Not Applicable		There is no plan with this name in the approved MMP and therefore this subcondition is considered N/A. The 5May2022 Authorisation removes Vegetation and terrestrial fauna as a plan and now states Rehabilitation Management Plan and Water Management Plan.
	Schedule D - 6.e	Aquatic fauna;					1			1			N/A	Not Applicable		There is no plan with this name in the approved MMP and therefore this subcondition is considered N/A. The 5May2022 Authorisation removes aquatic fauna as a plan and now states Rehabilitation Management Plan and Water Management Plan.
	Schedule D - 6.f	Heritage and sacred sites.	1										N/A	Not Applicable		There is no plan with this name in the approved MMP and therefore this subcondition is considered N/A. Reference to a Heritage and sacred sites plan has been removed from the 5May2022 Authorisation. The Operator advised that this is regulated outside of the Authorisation.
Schedule D - 7	Schedule D - 7	Any required material changes to the Environmental Management Plans mentioned in Condition 6 of this Schedule must be approved by the Department in writing.	1										4	Full Compliance	AMP version E dated May2022. Water Management Plan 27May2022. Unplanned Closure Plan dated Jan2023. The Unplanned Closure Plan was updated (add details from docs) and resubmitted in the audit period (September 2022). This amendment is still awaiting approval from DITT.	The Operator advised "There have been no material changes to the Management Plans in Condition 6 during the audit period." The Operator submitted AMP version E to DEPWS, not DITT. DTIT advised that the difference between version D and version E is in relation to the Water Management Plan (to address requirements of the WDL) and one minor change to the AMP. The Operator did not submit a singular document entitled "AMP_version E" to DITT, rather they advised DITT of the changes. Similarly the Water Management Plan changes were not material to DITT. Revised Unplanned Closure Plans were submitted as audited under Conditions 11.c. and 99.
Schedule D - 8	Schedule D - 8	For the purposes of managing chemicals and flammable or combustible liquids, the Operator must:												Refer to sub conditions		
Schedule D - 8.a	Schedule D - 8.a	store and handle all hazardous chemicals, toxic substances, gases and dangerous goods associated with the Mine in accordance with the current Australian Standard where such is applicable, and the laws of the Northern Territory;	1										4	Full Compliance	MET-221218-MECH 91TK02 MONTHLY VALVE & VENT INSPECTION. MET-230104-ELEC 91TK01 MONTH LEVEL CONTROL ALARM CHECK. MET-230204-MECH 91TK01 MONTHLY VALVE & VENT INSPECTION. 230204 26PI01 THICKNESS ACID SYSTEM dated 24Jan2023. Mining Diesel Fuel Facility Electrical ITRS Oct2022. Mining Diesel Fuel Facility OPSM PIE62285 (1) Mining Diesel Fuel Facility QADP PIE62285 (3) The Operator advised "The Mining Diesel Fuel Facility has been installed and commissioning is almost complete. Provided are two design documents that refer to the relevant standards. Also provided is an electrical compliance check sheet."	The Operator has outlined that an independent third party inspection of the chemical storage on site by Risk Management Technologies (ChemAlert) is planned for Q3 or Q4 2023.

Authorisation Co	mpliance Workb	ook - Operator													
5 May 2022 Authorisation Condition No.		Condition/Requirement	Governance/General	Non-mineral Waste Management	Open Pit/Underground Workings	Tailings Storage Facility	Water Management and Storages	Overburden Emplacement Facilities	Exploration	Waterways (including river diversion)	Bing Bong Loading Facility	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule D - 8.b	Schedule D - 8.b	include bulk storage tanks and associated infrastructure on a maintenance schedule which conforms with the current Australian Standard where such is applicable, and the laws of the Northern Territory;	1									4	Full Compliance	230204 26PI01 THICKNESS ACID SYSTEM dated 22Jan2023. Acid tank 2 preventative maintenance date Forecast acid tank 2 (sfleming2 v1) Schedule. Forecast acid tank 2 Schedule. Forecast fuel farm tank 1 (sfleming2 v1) Schedule. Forecast fuel farm tank 1 Schedule. Fuel farm tank 1 Preventative Maintenance Schedule MET-221218-MECH 91TK02 MONTHLY VALVE & VENT INSPECTION. MET-230104-ELEC 91TK01 MONTH LEVEL CONTROL ALARM CHECK. MET-230204-MECH 91TK01 MONTHLY VALVE & VENT INSPECTION. Mining Diesel Fuel Facility Electrical ITRs October 2022. Maintenance schedules show records of forecast planned works and maintenance starts dates. Visual inspections were schedule monthly for the diesel storage tank in the audit period.	The Operator provided some screen shots of the preventative maintenance forecasts for the main diesel farm storage tanks and the acid storage tanks. The screen shots are from the MRM maintenance planning and recording program called Ellipse.
Schedule D - 8.c	Schedule D - 8.c	include regular integrity testing to ensure loss of containment or failure of bulk storage tanks does not occur.	1									4	Full Compliance	MET-221218-MECH 91TK02 MONTHLY VALVE & VENT INSPECTION MET-230104-ELEC 91TK01 MONTH LEVEL CONTROL ALARM CHECK MET-230204-MECH 91TK01 MONTHLY VALVE & VENT INSPECTION MET-220719-ELEC MONTHLY LEVEL CONTROL ALARM CHECK TK01 dated 16 Jul202: (after audit period). MET-220719-MECH 91TK01 MONTHLY VALVE & VENT INSPECTION dated 20Jul2022 (after audit period). Diesel storage tank. MET-220719-MECH 91TK01 MONTHLY VISUAL TANK INSPECTION 20Jul2022 (after audit period). Diesel storage tank. Monthly visual tank inspection focuses on the whole of tank for general condition including damage, rust and seepage from welded seems.	



Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
	3 (25 May 2021 - 25 May 2023, amendment issue	d 10 Ma	rch 2022)		
1	The licensee must ensure the contact details recorded with the Administering Agency for this licence are correct at all times.	4	Full Compliance	Contact details Licence General 24 hour emergency WDL174 Simon Longhurst Adam Hatfield Manager – Health, Safety, Environment & Community E: Simon Longhurst@glencore.com.au P: 0428 859 783	Contact details on the NT EPA website were updated after the audit period (before 7Jun2023) to include Adam Hatfield and Simon Longhurst and thos contact details were confirmed by email signatures from the Operator. When the website was checked 13May2023 Adam Hatfield was the only contact and his details were also confirmed. https://ntepa.nt.gov.au/your-business/public-registers/licences-and-approvals-register/waste-discharge-licences/mining/mrm
2	The licensee must at all times have a 24 hour emergency contact.	4	Full Compliance	The Operator website (14May2023) has an Information line 1800 211 573 and also includes the site switchboard phone number (+61 8 8975 8179) that the Operator advised operates 24/7 prominently located in the contact us section. These were also sighted during the audit period by the Independent Monitor (5Aug2022).	Switchboard direct calls to ERT as required. 24 hour number: MRM emergency phone number is 08 8975 8222 that is also a 24 hour phone number.
3	The licensee must notify the Administering Agency prior to making any operational change that will cause, or is likely to cause, an increase in the potential for environmental harm.	N/A	Not Applicable		Operator advised there has been no relevant changes in the audit period. The Independent Monitor's review did not indicate any operational change related to this condition.
4	The licensee must cause clear and legible signage, in English, to be displayed in a prominent location at each public entrance to the premises that includes the following details:		Refer to subconditions		
4.1	waste discharge licence number issued under the Water Act; and	4	Full Compliance	Photo: MRM Gate Sign WDL174-13. Photo: Entrance to TSF Sign WDL174-13 (not a public access). Photo: BBLF Sign WDL174-13. The signage at the MRM entrance gate, TSF entrance and Bing Bong entrance includes the waste discharge licence number.	
4.2	24 hour emergency contact details.	4	Full Compliance	Photo: MRM Gate Sign WDL174-13. Photo: Entrance to TSF Sign WDL174-13 (not a public access). Photo: BBLF Sign WDL174-13. The signage at the MRM entrance gate, TSF entrance and Bing Bong entrance includes the 24 hour emergency number of "8975 8222".	
5	The licensee must cause a copy of this licence to be available for inspection by any person, in hard copy form, at the premises.	4	Full Compliance	The Independent Monitor was shown a copy of WDL 174-14 (relevant 26May2023 to 25May25) via video from the site over Microsoft teams. While this was not the relevant WDL in the audit period, it was the relevant WDL at that time of the audit and therefore demonstrated that the relevant WDL was available on site for inspection by any person, in hard copy form.	

Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
6	The licensee must provide to the Administering Agency, within 10 business days of a request, a copy of any document, monitoring data or other information in relation to the activity, must be provided in electronic form by emailing waste@nt.gov.au unless otherwise specified.	N/A	Not Applicable		No requests from DEPWS were made (outside of the licence renewal/amendment processes) for any document, monitoring data or other information in relation to the activity in the audit period. Data is sent annually with the annual monitoring report.
7	All notices, reports, documents or other correspondence required to be provided as a condition of this licence, unless otherwise specified as a condition of this licence, must be provided in electronic form to the Administering Agency.	4	Full Compliance	The evidence provided for various conditions of the WDL showed that correspondence was emailed to waste@nt.gov.au.	The Operator advised that all correspondence and submissions required by the conditions of the licence were made electronically via email to waste@nt.gov.au.
8	The licensee must maintain and implement the current version of the documents listed in Table 1.		-		
Table 1: Licence Documents	Document Number 1 Communication Plan Waste Discharge Licence (WDL 174-10)	4	Full Compliance	Communication Plan 2022_WDL 174 (advised it was completed 3Aug2022). Further magazine examples: https://territoryq.com.au/mcarthur-river-mine-the-truth-of-it/ Evidence of implementation of the Consultation and Communication Plan is examples of social media posts, factsheets, posters, media statements, magazine article and stakeholder engagement tracking for the audit period. Internal weekly memos are also supplementary but are not issued directly to the community.	to remain the same in the audit period. OBS: The Communication Plan would benefit from including a date of issue and version control.
Table 1: Licence Documents	Document Number 2 Emergency Response Plan McArthur River Mining	4	Full Compliance	Emergency Response Plan MPN-26000001 version 8 dated 8May2020. MRM ERT Training Matrix Jan2023. Correspondence between Internal Operator and All Users and Contractors relating to Notification Weekend Coverage 06/04/2023 - 10/04/2023. Correspondence between Internal Operator and All Users and Contractors relating to Notification Weekend Coverage 22/12/2022 - 26/12/2022. Emergency Response Coverage July 2022. Evidence of implementation of the ERP is provided in the form of the Emergency Response Team (ERT) Coverage Calendar and Training Schedule for 2023 and the emails of coverage over Easter 2022 and Christmas 2022 that included an environmental representative.	Section 23 of the Emergency Response Plan includes a requirement to "Follow Communication Plan Waste Discharge Licence (WDL174-11)." Section 26 refers to discharge from the NOEF "Please note, the strategy shall be to release the water from the NOEF into the receding flood waters as soon as possible, to dilute the concentration of contaminates to acceptable WDL limits."
Table 1: Licence Documents	Document Number 3 Adaptive Management Plan McArthur River Mine	4	Full Compliance	Adaptive Management Plan version E dated 27May2022. 2022-23 EMR Evidence of maintaining the document is shown by its revision in the audit period. A review of the AMP version E was undertaken by the Independent Monitor with a draft report 23Dec2022 and finalised on 28Jul2023 (outside the audit period).	Evidence of implementation of the AMP and the associated Trigger Action Response Plans (TARPs) is provided within all the environmental managements plans that sit under that overarching AMP. Formal AMP TARP Procedure is not available yet.

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Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
9	Within 10 business days of any amendment being made to a document listed in Table 1 the licensee must provide the amended document to the Administering Agency, along with:	4	Full Compliance	Correspondence between Operator and DEPWS relating to Adaptive Management Plan Update. Correspondence between Operator and DEPWS relating to Communication Plan Waste Discharge Licence. Correspondence between Operator and DEPWS relating to Updated Water Management Plan and Adaptive Management Plan.	
9.1	a tabulated summary of the amendment(s) with document references;	4	Full Compliance	Correspondence between Operator and DEPWS relating to Adaptive Management Plan Update. Correspondence between Operator and DEPWS relating to Communication Plan Waste Discharge Licence. Correspondence between Operator and DEPWS relating to Updated Water Management Plan and Adaptive Management Plan. Tabulated summary provided for AMP/Water Management Plan and Communication Plan Waste Discharge Licence.	
9.2	reasons for the amendment(s); and	4	Full Compliance	Correspondence between Operator and DEPWS relating to Adaptive Management Plan Update. Correspondence between Operator and DEPWS relating to Communication Plan Waste Discharge Licence. Correspondence between Operator and DEPWS relating to Updated Water Management Plan and Adaptive Management Plan. The reasons for the amendments were provided in Correspondence between Operator and DEPWS and Communication Plan email.	
9.3	an assessment of environmental risk associated with the amendment(s).	4	Full Compliance	Correspondence between Operator and DEPWS relating to McArthur River Mining – Adaptive Management Plan Update. Correspondence between Operator and DEPWS relating to Communication Plan Waste Discharge Licence. Correspondence between Operator and DEPWS relating to Updated Water Management Plan and Adaptive Management Plan. The submission of the Communication Plan included an assessment of environmental risk. The letter from Operator to DEPWS dated 27May2022 included the following related to the Water Management Plan and AMP "The proposed amendments do not introduce any new environmental risks or change existing risks for the McArthur River Mine."	
10	The Administering Agency may require the licensee to revise or amend and resubmit any amended document or document provided in accordance with this licence. Where the Administering Agency requires a document to be resubmitted, the licensee must submit it to the Administering Agency by the date specified by the Administering Agency.	N/A	Not Applicable		The AMP was required to be resubmitted. However, that is considered covered elsewhere within the WDL. No other requests for revisions were requested in the audit period.

Waste Disc	charge Licence Compliance Workbook - Operator	2023 - A	udit Period 01 May 2	2022 to 30 April 2023	
Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
11	The licensee must operate and maintain a community feedback number.	4	Full Compliance	https://www.glencore.com.au/operations-and-projects/mcarthur-river-mine/contact. The Operator website (8Jul2021 and 14May2023) has an Information line 1800 211 573 and also includes the site switchboard phone number (+61 8 8975 8179) that the Operator advised operates 24/7 prominently located in the contact us section. The Operator website (8Jul2021 and 14May2023) states "If you would like to get in touch with the team at McArthur River Mine, please use one of the following options. Address and community enquiries Address: McArthur River Mining, PO Box 36821, Winnellie NT 0821 Site switchboard: +61 8 8975 8179 Information line: 1800 211 573."	
12	The licensee must display the community feedback number:		Refer to subconditions		
12.1	where the licensee has a website, in a prominent location on the licensees website;	4	Full Compliance	https://www.glencore.com.au/operations-and-projects/mcarthur-river-mine/contact. The Operator website (8Jul2021 and 14May2023) has an Information line 1800 211 573 and also includes the site switchboard phone number (+61 8 8975 8179) that the Operator advised operates 24/7 prominently located in the contact us section. The Operator website (8Jul2021 and 14May2023) states "If you would like to get in touch with the team at McArthur River Mine, please use one of the following options. Address and community enquiries Address: McArthur River Mining, PO Box 36821, Winnellie NT 0821 Site switchboard: +61 8 8975 8179 Information line: 1800 211 573."	
12.2	in the Communication Plan Waste Discharge Licence; and	4	Full Compliance	Communication Plan 2022_WDL 174 (advised it was completed 3Aug2022). Correspondence between Operator and DEPWS relating to Communication Plan Waste Discharge Licence. The Communication Plan includes the MRM Information Telephone Line: 1800 211 573 in the Community Feedback section.	
12.3	in other publicly available documents relating to the activity.	N/A	Not Applicable		There were no specific publicly available documents related to waste discharge in the audit period.
13	The licensee must maintain a Complaint Log for all complaints received by the licensee in relation to the activity.	4	Full Compliance	Complaints register 2022-2023. The Complaints register for 2022-2023 did not include any complaints relevant to the WDL and included one complaint only.	

ondition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
14	The licensee must ensure that the Complaint Log includes, for each complaint received by the licensee, the following information:		Refer to subconditions		
14.1	the person to whom the complaint was made;	4	Full Compliance	Complaints register 2022-2023.	
14.2	the person responsible for managing the complaint;	4	Full Compliance	Complaints register 2022-2023. The Complaints register for 2022-2023 did not include any complaints relevant to the WDL and included one complaint only.	
14.3	the date and time the complaint was reported;	4	Full Compliance	Complaints register 2022-2023.	The time of the complaint was not stated in the register, although the column heading does say "Date and time of compliant".
14.4	the date and time of the event(s) that led to the complaint;	4	Full Compliance	Complaints register 2022-2023.	The register stated the time was "not specific".
14.5	the contact details of the complainant if known, or where no details are provided a note to that effect;	4	Full Compliance	Complaints register 2022-2023.	
14.6	the nature of the complaint;	4	Full Compliance	Complaints register 2022-2023.	
14.7	the nature of event(s) giving rise to the complaint;	4	Full Compliance	Complaints register 2022-2023.	
14.8	prevailing weather conditions at the time (where relevant to the complaint)	N/A	Not Applicable	Complaints register 2022-2023.	
14.9	the action taken in relation to the complaint, including any follow-up contact with the complainant; and	4	Full Compliance	Complaints register 2022-2023.	
14.10	if no action was taken, why no action was taken.	N/A	Not Applicable	Complaints register 2022-2023.	
15	EARLY SURRENDER OF LICENCE Any reports, records or other information required or able to be provided by the licensee under this licence must be submitted to the Administering Agency prior to the licensee surrendering the licence. If the date on which a report, record or other information is required falls after the date the licensee requests to surrender this licensee, the licensee must provide the report, record or information as far as possible using data available to the licensee up to and including the date the request to surrender the licence is made. OPERATIONAL	N/A	Not Applicable		
16	The licensee must, without limiting any other condition of this licence, in conducting the activity do all things reasonable and practicable to ensure the activity does not adversely affect the Declared Beneficial Uses and Water Quality Objectives and Sites of Conservation Significance as declared from time to time, including those applying to:	4	Full Compliance	The Conclusion of the Executive Summary of the SURFACE WATER MONITORING REPORT stated "The review concluded that the beneficial uses	SSTVs are designed to protect those beneficial uses. Therefore no SSTV exceedances is a indicator that the beneficial uses are protected. The SURFACE WATER MONITORING REPORT Executive Summary stated "Over the reporting period there were 4 individual exceedances of the SSTVs at SW11. The exceedances were related to dissolved oxygen (DO) an filtered iron (Fe_F). Each of these exceedances were found to be derived from natural catchment sources located upstream of the Mine. None of these exceedances triggered a potential non-compliance under the conditions of the WDL and further investigation was not required."

Condition	Condition/Requirement	Score	Compliance Level	Evidence	Comments
No. 16.1	McArthur River Area: Aquatic ecosystem protection, recreational water quality and aesthetics (Gazette references G9 11 March 1998 and G20 27 May 1998);	4	Full Compliance	SURFACE WATER MONITORING REPORT FOR THE 2022/23 REPORTING PERIOD McArthur River Mine and Bing Bong Loading Facility dated 5Jul2023. The Conclusion of the Executive Summary of the SURFACE WATER MONITORING REPORT stated "The review concluded that the beneficial uses and community values of the McArthur River continue to be protected from potential mine derived impacts." The TARP includes this environmental objective of "protect the McArthur River beneficial users and community values from mining impacts".	
16.2	McArthur River Catchment Area: Environment, cultural and riparian (Gazette references G10 14 March 2001);	4	Full Compliance	SURFACE WATER MONITORING REPORT FOR THE 2022/23 REPORTING PERIOD McArthur River Mine and Bing Bong Loading Facility dated 5Jul2023. The Conclusion of the Executive Summary of the SURFACE WATER MONITORING REPORT stated "The review concluded that the beneficial uses and community values of the McArthur River continue to be protected from potential mine derived impacts." The TARP includes this environmental objective of "protect the McArthur River beneficial users and community values from mining impacts".	
16.3	SOCS Number 33: Sir Edward Pellew Island group;	4	Full Compliance	SURFACE WATER MONITORING REPORT FOR THE 2022/23 REPORTING PERIOD McArthur River Mine and Bing Bong Loading Facility dated 5Jul2023. The Conclusion of the Executive Summary of the SURFACE WATER MONITORING REPORT stated "The review concluded that the beneficial uses and community values of the McArthur River continue to be protected from potential mine derived impacts." The TARP includes this environmental objective of "protect the McArthur River beneficial users and community values from mining impacts".	
16.4	SOCS Number 34: McArthur River coastal floodplain; and	4	Full Compliance	SURFACE WATER MONITORING REPORT FOR THE 2022/23 REPORTING PERIOD McArthur River Mine and Bing Bong Loading Facility dated 5Jul2023. The Conclusion of the Executive Summary of the SURFACE WATER MONITORING REPORT stated "The review concluded that the beneficial uses and community values of the McArthur River continue to be protected from potential mine derived impacts." The TARP includes this environmental objective of "protect the McArthur River beneficial users and community values from mining impacts".	

Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
16.5	SOCS Number 35: Borroloola area.	4	Full Compliance	SURFACE WATER MONITORING REPORT FOR THE 2022/23 REPORTING PERIOD McArthur River Mine and Bing Bong Loading Facility dated 5Jul2023. The Conclusion of the Executive Summary of the SURFACE WATER MONITORING REPORT stated "The review concluded that the beneficial uses and community values of the McArthur River continue to be protected from potential mine derived impacts." The TARP includes this environmental objective of "protect the McArthur River beneficial users and community values from mining impacts".	
17	The licensee must comply with the Adaptive Management Plan for the McArthur River Mine as amended from time to time.	4	Full Compliance	BSafe Incident Register 2022-2023. The operator outlines that the WMP is a component of the overarching	Evidence of implementation of the AMP and the associated Trigger Action Response Plans (TARPs) is encompassed in all the environmental managements plans that sit under that overarching AMP. OBS: Condition 17 is a duplicate of the requirements of condition 8 and it is noted it is removed from WDL 174-14.
18	The licensee must ensure any plant and equipment, including flow devices, used by the licensee in conducting the activity:		Refer to subconditions		OBS: Evidence related to demonstrating Li-Anthawirriyarra Sea Ranger Unit Vessel, currently used for undertaking water quality monitoring, is fit for purpose, maintained, and operated by a person trained to use the vessel should be provided in future audits.
18.1	is reasonably fit for purpose and use to which it is put;	4	Full Compliance	YSI ProDSS Calibration and Use Procedure dated 18Dec2020. Example Training - Calibration + Sampling (JD) dated 14Jun2022. Calibration Records (Water Quality Probe) dated 1Apr2023. The Training and Calibration Flood Procedure document is signed by both the operator of the calibrator and trainer and calibration records provided.	

Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
18.2	is maintained and operational; and	4	Full Compliance	YSI ProDSS Calibration and Use Procedure dated 18Dec2020. Example Training - Calibration + Sampling (JD) dated 14Jun2022. Example Training - Early Warning Flood Procedure (JD) dated 23Dec2022. Calibration Records (Water Quality Probe) dated 1April2023. Maintenance outlined in the Calibration Records The Operator's Monitoring team no longer use MRM boats for sampling, it employs the Local Indigenous Sea Rangers (Li-Anthawirriyarra Sea Ranger Unit).	Operator has an onsite maintenance workshop to ensure mobile plant and equipment are maintained and fit for use.
18.3	is operated by a person trained to use the plant and equipment.	4	Full Compliance	YSI ProDSS Calibration and Use Procedure dated 18Dec2020. Example Training - Calibration + Sampling (JD) dated 14Jun2022. Example Training - Early Warning Flood Procedure (JD) dated 23Dec2022. Calibration Records (Water Quality Probe) dated 1Apr2023. The Training and Calibration Flood Procedure document is signed by both the operator of the calibrator and trainer.	
19	No change, replacement or alteration of plant and equipment is permitted if the change, replacement or alteration increases the risk of environmental harm for the licenced activity, unless approved by the Administering Agency.	N/A	Not Applicable	No other change, replacement or alternation of waste discharge plant and equipment was observed during the audit period that would increase the risk of environmental harm from the licenced activity based on the review of information provided.	The Operator advised that no other change, replacement or alternation of waste discharge plant and equipment occurred during the audit period that would increase the risk of environmental harm from the licenced activity.
20	The licensee must submit a Dredging and Dredge Spoil Management Plan to the Administering Agency 20 business days prior to the commencement of any dredging activities.	N/A	Not Applicable		No dredging activities have occurred during the audit period. Maintenance dredging may be required within the next few years and relevant approvals shall be obtained.
21	The licensee must comply with the Dredging and Dredge Spoil Management Plan.	N/A	Not Applicable		No dredging activities have occurred during the audit period.
	DISCHARGES				
	Discharges to water This licence authorises discharge to water from the			Waste Discharge Procedure dated 16Nov2019.	The Operator advised that no discharges occurred in the audit period.
22	authorised discharge point(s) as identified in Table 2 and Appendix 2.	N/A	Not Applicable	WMD Release Point Checklist dated 31Jan2022.	The Operator advised that no discharges occurred in the addit period.
				Note: no discharges have occurred during the audit period.	
23	The licensee must ensure that all discharge events at each authorised discharge point consist only of waste from the source(s) as specified in Table 2.	N/A	Not Applicable		The Operator advised that no discharges occurred in the audit period.

Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
Table 2: Authorised Discharge Points	Mine Levee Discharge Point(s) (MLDP) (Mine levee pumping outlets) Location - Easting: 618661 Northing: 8183459 1. Rain water collecting in the old McArthur River Channel (NC1A) inside the Mine levee. Waters discharged at Mine Levee Discharge Point are pumped over the mine levee wall and flow into the Old McArthur River channel upstream of the McArthur and Glyde River confluence.		-		This is the Table 2: Authorised Discharge Points audited in conditions 22 and 23.
Table 2: Authorised Discharge Points	Mine Levee Discharge Point(s) (MLDP) (Mine levee pumping outlets) Location - Easting: 618661 Northing: 8183459 2. Groundwater from dewatering bores around main pit collected in and then discharged from Pond 2 (P2). Waters discharged at Mine Levee Discharge Point are pumped over the mine levee wall and flow into the Old McArthur River channel upstream of the McArthur and Glyde River confluence.		-		This is the Table 2: Authorised Discharge Points audited in conditions 22 and 23.
Table 2: Authorised Discharge Points	Mine Levee Discharge Point(s) (MLDP) (Mine levee pumping outlets) Location - Easting: 618661 Northing: 8183459 3. Water from the water management dam. Waters discharged at Mine Levee Discharge Point are pumped over the mine levee wall and flow into the Old McArthur River channel upstream of the McArthur and Glyde River confluence.		-		This is the Table 2: Authorised Discharge Points audited in conditions 22 and 23.
Table 2: Authorised Discharge Points	Mine Levee Discharge Point(s) (MLDP) (Mine levee pumping outlets) Location - Easting: 618661 Northing: 8183459 4. Treated water from the Water Treatment Plant that will be stored in (P2) prior to discharge from the MLDP. Waters discharged at Mine Levee Discharge Point are pumped over the mine levee wall and flow into the Old McArthur River channel upstream of the McArthur and Glyde River confluence.		-		This is the Table 2: Authorised Discharge Points audited in conditions 22 and 23.
Table 2: Authorised Discharge Points	South-East Levee 1 Discharge Point (SEL1 DP) Location - Easting: 618332 Northing: 8183859 Rain water collecting inside the South Eastern Levee and separated from all contaminated seepages. Discharges are pumped via pipe line to Barney Creek and then flow into the McArthur River. Discharge can only occur when flow as measured in the McArthur River at the downstream gauging station is in excess of 20m ³ /s.		-		This is the Table 2: Authorised Discharge Points audited in conditions 22 and 23.

Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
Table 2: Authorised Discharge Points	McArthur River Diversion Channel Discharge Point(s) (MRDC DP) Location - Easting: 619595 Northing: 8182573 Discharges through McArthur Diversion Channel Discharge Point(s) (MRDC DP) include: 1. Groundwater from dewatering bores around main pit collected in and then discharged from Pond 2 (P2). Waters discharged at Mine Levee Discharge Point are pumped over the mine levee wall and flow into the Old McArthur River channel upstream of the McArthur and Glyde River confluence.		-		This is the Table 2: Authorised Discharge Points audited in conditions 22 ar 23.
Table 2: Authorised Discharge Points	McArthur River Diversion Channel Discharge Point(s) (MRDC DP) Location - Easting: 619595 Northing: 8182573 Discharges through McArthur Diversion Channel Discharge Point(s) (MRDC DP) include: 2. Water from the water management dam. Waters discharged at Mine Levee Discharge Point are pumped over the mine levee wall and flow into the Old McArthur River channel upstream of the McArthur and Glyde River confluence.		-		This is the Table 2: Authorised Discharge Points audited in conditions 22 ar 23.
Table 2: Authorised Discharge Points	McArthur River Diversion Channel Discharge Point(s) (MRDC DP) Location - Easting: 619595 Northing: 8182573 Discharges through McArthur Diversion Channel Discharge Point(s) (MRDC DP) include: 3. Treated water that will be stored in (P2) prior to discharge from the MRDC DP. Waters discharged at Mine Levee Discharge Point are pumped over the mine levee wall and flow into the Old McArthur River channel upstream of the McArthur and Glyde River confluence.		-		This is the Table 2: Authorised Discharge Points audited in conditions 22 ar 23. Environmental improvement project of addition of this discharge location that allows discharge into the flowing river/water so allows for mixing.

Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
Table 2: Authorised Discharge Points	Dredge Spoil Drain (BBDDP) Location - Easting: 649514 Northing: 8271536 The dredge spoil perimeter drain exit point (BBDDP) is located on the tidal mudflats to the east of the loading facility and within a tidal area. The drain is constructed around the external boundary of the dredge spoil cells to intercept saline water and extends approximately 400 metres from the final cell. The drain receives overflow from: 1. the final dredge spoil emplacement area cell when in operation; At BBDDP passive releases flow across the intertidal flats to the Gulf of Carpentaria via the Bing Bong navigation channel. For the purposes of clarity this licence does not authorise dredging and/or pumping or disposal of dredge slurry to the Dredge Spoil Encasement Area.		-		This is the Table 2: Authorised Discharge Points audited in conditions 22 a 23.
Table 2: Authorised Discharge Points	Dredge Spoil Drain (BBDDP) Location - Easting: 649514 Northing: 8271536 The dredge spoil perimeter drain exit point (BBDDP) is located on the tidal mudflats to the east of the loading facility and within a tidal area. The drain is constructed around the external boundary of the dredge spoil cells to intercept saline water and extends approximately 400 metres from the final cell. The drain receives overflow from: 2. saline water from the perimeter drain which surrounds the dredge spoil emplacement area. At BBDDP passive releases flow across the intertidal flats to the Gulf of Carpentaria via the Bing Bong navigation channel. For the purposes of clarity this licence does not authorise dredging and/or pumping or disposal of dredge slurry to the Dredge Spoil Encasement Area.		-		This is the Table 2: Authorised Discharge Points audited in conditions 22 a 23.
24	The licensee must, for all authorised discharge points in Table 2, install, operate and maintain a device to measure and record, for each discharge event:		Refer to subconditions		

Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
	the time the discharge commenced and the duration of the discharge;			Photo: Adjustable valves. Photo: Flow Meter 2829. Photo: Flow Meter 2831. Photo: Flow Sensor 2829. Photo: Flow Sensor 2831. Evidence of requirement to clean solar panels and cameras (schedule screen shot).	The Operator advised that no discharges occurred in the audit period. The Operator advised "There is no written record of maintenance (work orders) for these flow meters because no major maintenance work has been required during the audit period. However, cleaning and inspections are undertaken fortnightly as part of the maintenance schedule (solar panel cleaning, visual checks, etc)."
24.1		4	Full Compliance	Photos showing discharge flow meters for MLDP are provided.	OBS: Evidence of maintaining the flow meters should be provided for future audits.
					OBS: The Bing Bong discharge events only occur during dredging and part of preparations for dredging activity should include installation of a flow measuring device.
24.2	the discharge rate of flow; and	4	Full Compliance	Artificial Surface Water Monitoring Procedure PRO-2200025 dated 17Apr2020. Photo: Adjustable valves. Photo: Flow Meter 2829. Photo: Flow Meter 2831. Photo: Flow Sensor 2829. Photo: Flow Sensor 2831. Evidence of requirement to clean solar panels and cameras (schedule screen shot). Photos showing discharge flow meters for MLDP are provided.	The Operator advised that no discharges occurred in the audit period.
24.3	the discharge volume.	4	Full Compliance	Photo: Adjustable valves. Photo: Flow Meter 2829. Photo: Flow Meter 2831. Photo: Flow Sensor 2829. Photo: Flow Sensor 2831. Evidence of requirement to clean solar panels and cameras (schedule screen shot). Photos showing discharge flow meters for MLDP are provided.	The Operator advised that no discharges occurred in the audit period.
25	The licensee must ensure that the discharge from all discharge events at each authorised discharge point does not:		Refer to subconditions		
25.1	contain any floating debris, oil, grease, petroleum hydrocarbon sheen, scum, litter or other objectionable matter;	N/A	Not Applicable		The Operator advised that no discharges occurred in the audit period.
25.2	cause or generate odours which would adversely affect the use of surrounding waters;	N/A	Not Applicable		The Operator advised that no discharges occurred in the audit period.

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ndition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
25.3	cause algal blooms in the receiving water;	N/A	Not Applicable		The Operator advised that no discharges occurred in the audit period.
25.4	cause visible change in the behaviour of fish or other aquatic organisms in the receiving water;	N/A	Not Applicable		The Operator advised that no discharges occurred in the audit period.
25.5	cause mortality of fish or other aquatic organisms; or	N/A	Not Applicable		The Operator advised that no discharges occurred in the audit period.
25.6	cause adverse impacts on plants.	N/A	Not Applicable		The Operator advised that no discharges occurred in the audit period.
	MONITORING				
26	The licensee must conduct surface water monitoring in accordance with Appendix 4, Table 1 and Table 2.	4	Full Compliance	Correspondence between AAPA and Operator relating to ISSUE OF AUTHORITY CERTIFICATE FOR GAUGING STATIONS - 202104614 dated 23Aug2022. Photo: FIT3005 Flow Meter. 2022-2023 Surface Water Data. Environmental Monitoring Schedule Rev 3 dated 25Oct2022. Bing Bong Artificial Surface Water - Field Sheet dated 2Jan2023. MRM Artificial Surface Water - Field Sheet 16Jan2023. MRM Natural Surface Water - Field Sheets 15Jan2023. SW29 Data Export 2022-2023. Surface water monitoring data provided.	AAPA certificate for installation of Emu Creek and Glyde River (Amelia Yard gauging stations received in the audit period. An Aboriginal Areas Protection Authority (AAPA) certificate has been granted for the two gauging stations sites. MRM is planning to construct to Emu Creek and Glyde River gauging stations over the 2023 dry season. It is noted that multiple versions of the Environmental Monitoring Schedule were issued during the audit period. These changes consisted of Rev0 dated 1Jan2022, Rev1 dated 29Jul2022, Rev2 dated 13Oct2022 and Rev3 dated 25Oct2022. The version history shows that the relevant changes made were: Rev1 - Added SO2VAN01 & removed SO2VAN02. Rev2 - Added DW50 and DW51. Rev3 - Added NOEF NWSFB. OBS: SW28 is included in the monitoring schedule but not the field sheets provided as evidence as we understand it is generally dry. SW29 is also included in the monitoring schedule but not the field sheet provided. All monitoring locations should be included on the field sheets.
27	The licensee must conduct fluvial sediment monitoring in accordance with Appendix 5, Table 1 and Table 2.	4	Full Compliance	MONITORING OF SELECT ANALYTES AND LEAD ISOTOPE RATIOS IN FLUVIAL SEDIMENTS, FISH AND MOLLUSCS OF THE MacArthur RIVER 2022 dated 24May2023. Appendix U - Metals and Metalloids in Near Shore Sediments of Bing Bong Loading Facility dated 11Nov2021.	

Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
28	The licensee must conduct biota monitoring in accordance with Appendix 6.	4	Full Compliance	BBLF Annual Marine Monitoring 2022 dated 24May2023. BBLF Annual Seagrass Survey 2022 dated 23May2023. MRM DGT August 2022 Report. MRM DGT December 2022 Report. MRM DGT March 2023 Report. MRM DGT November 2022 Report. Appendix K - Aquatic Fauna Monitoring Earl Dry Season 2021 dated 21Dec2021. Appendix I - 2021 Freshwater Aquatic Macroinvertebrate Assessment dated 10Jan2022. Appendix L - Aquatic Fauna Monitoring Late Dry Season 2021 dated 01Feb2022.	Sample set of DGT data (the DGT annual monitoring report will be provided with the 2022-2023 EMR in August) DGT reporting occurred April 2022 (before audit period), August 2022, November 2022, December 2022 and March 2023. OBS: Sampling for diffuse gradients in thin films sampling should be undertaken as close as practically possible to quarterly periods.
29	The licensee must ensure that all samples and field environmental data are representative of the conditions at the time of sampling.	4	Full Compliance	MEMO - EIL Sampling and Testing 2022 dated Nov2022 (related to spills). PRO-2200023 Natural Surface Water Monitoring Procedure dated 17Apr2020. PRO-2200029 Fluvial Sediment Monitoring Procedure dated 17Apr2020. PRO-2200044 YSI ProDSS Calibration and Use Procedure dated 25Nov2020.	No change to procedures in the audit period.
30	The licensee must ensure that all samples and field environmental data are collected in accordance with recognised Australian Standards and guidelines (such as AS/NZS 5667, ANZECC/ARMCANZ).	4	Full Compliance	PRO-2200023 Natural Surface Water Monitoring Procedure dated 17Apr2020. PRO-2200029 Fluvial Sediment Monitoring Procedure dated 17Apr2020 PRO-2200044 YSI ProDSS Calibration and Use Procedure dated 25Nov2020.	No change to procedures in the audit period.
31	The licensee must ensure that all monitoring samples are analysed at a laboratory with current NATA accreditation or equivalent, for the parameters to be analysed in the laboratory.	4	Full Compliance	EB2313402_0_COA dated 11May2023. ENV2200155 Final Report dated 24Jun2022. ENV2200218 Final Report dated 9Sep2022. ENV2200230 Final Report 26Sep2022. ENV2200320 Final Report dated 20Jan2023. ENV2300030 Final Report dated 19Feb2023. ENV2300070 Final Report dated 9Apr2023. NATA accreditation Turbidity confirmed Jul2023 (https://nata.com.au/accredited-organisation/mcarthur-river-mining-environmental-laboratory-19675-22853/). The Independent Monitor confirmed that turbidity is now included on the NATA website for MRM Environmental Laboratory.	The Operator advised "All samples are analysed at NATA accredited laboratories (ALS or MRM lab)." SUCCESS: Turbidity NATA accreditation.
32	The licensee must ensure that any proposed revisions to the monitoring required by Condition 26 to 28 (other than typographical changes or revisions to formatting or referencing) are:		Refer to subconditions		
32.1	reviewed by a Qualified Person, who must produce a written report about their review;	N/A	Not Applicable	No changes were identified in the audit period.	The Operator advised that no changes were made in the audit period.
32.2	submitted to the Administering Agency with justification for revisions; and	N/A	Not Applicable	No changes were identified in the audit period.	The Operator advised that no changes were made in the audit period and it would be done through the amendment process, if required.

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Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
32.3	submitted to the Administering Agency, in both hard copy and electronic form (with a complete copy of the qualified professional's review), 20 business days prior to the proposed implementation date.	N/A	Not Applicable	No changes were identified in the audit period.	The Operator advised that no changes were made in the audit period and i would be done through the amendment process, if required.
33	The licensee must for all land based water monitoring points specified in the monitoring documents:		Refer to subconditions		The signage inspection provided (dated 24 May 2022) is within the audit period.
33.1	install and maintain appropriate identification signage so that they are reasonably identifiable at all times; and	3	Part Compliance (High)	Internal Operator Memo subject Identification Signage Inspection dated 24May2022 (conducted in May). Photo of SW08 sampling sign provided in September 2022. The photos provided from May2022 showed that the signage says "Environmental Monitoring Site" and then an identifier for the specific site. Photos were provided for all land based sites with the exception of SW08 in this signage inspection. The photos indicate that the signage was in place at the beginning of the audit period, except for at SW08. A photo was provided in September 2022 showing a sign at SW08.	No OFI has been prepared because the sign was installed during the audit period.
33.2	maintain safe access and egress, as is reasonable and practicable.	4	Full Compliance	Internal Operator Memo subject Identification Signage Inspection dated 24May2022 (conducted in May2022). Photo of SW08 sampling sign provided in September 2022.	Note assumption re photos show sites appear to be accessible although unable to be definitive.
34	The licensee must ensure any samples collected in accordance with the monitoring documents or in connection with the activity or this licence, are obtained by, or under the supervision of a Qualified Sampler.	4	Full Compliance	Natural Surface Water Monitoring Procedure signed by EM on 8Dec2022. Example Training - Calibration + Sampling (JD) dated 14Jun2022. The Operator advised that sampling is always conducted under the supervision of a degree qualified person. The Independent Monitor observed water quality sampling being conducted at SPROD in accordance with the ASW Monitoring Procedure PRO-2200025 31May2023 (after audit period).	
35	The licensee must ensure that, for each sample collected in accordance with the monitoring documents or the activity the following information must be recorded and retained:		Refer to subconditions		
35.1	the date on which the sample was collected;	4	Full Compliance	Bing Bong Artificial Surface Water - Field Sheet dated 2Jan2023. MRM Artificial Surface Water - Field Sheet 16Jan2023. MRM Natural Surface Water - Field Sheets 15Jan2023.	
35.2	the time at which the sample was collected;	4	Full Compliance	Bing Bong Artificial Surface Water - Field Sheet dated 2Jan2023. MRM Artificial Surface Water - Field Sheet 16Jan2023. MRM Natural Surface Water - Field Sheets 15Jan2023.	
35.3	the location at which the sample was collected;	4	Full Compliance	Bing Bong Artificial Surface Water - Field Sheet dated 2Jan2023. MRM Artificial Surface Water - Field Sheet 16Jan2023. MRM Natural Surface Water - Field Sheets 15Jan2023.	

Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
35.4	the name of the person who collected the sample;	4	Full Compliance	Bing Bong Artificial Surface Water - Field Sheet dated 2Jan2023. MRM Artificial Surface Water - Field Sheet 16Jan2023. MRM Natural Surface Water - Field Sheets 15Jan2023. None of the three data sheet samples examples provided included the sampler's name. Two out of the three examples left the 'sampler's initials' column blank.	
35.5	the chain of custody forms relating to the sample;	4	Full Compliance	EB2302266_COC dated 24Jan2023. EB2310879_COC dated 12Apr2023. EB2313402_COC dated 3May2023. GW220726AL - Submission Form dated 28Jul2022. GW230109KL - Submission Form dated 9Jan2023. NSW220513KL_IPE - Submission Form dated 13May2022. NSW221009NC - Submission Form dated 9Oct2022. NSW230108JD - Submission Form dated 8Jan2023. Examples of completed Chain of Custody forms were provided.	
35.6	the field measurements (if any) and analytical results (if any) relating to the sample; and	4	Full Compliance	EB2302266_COC dated 24Jan2023. EB2310879_COC dated 12Apr2023. EB2313402_COC dated 3May2023. GW220726AL - Submission Form dated 28Jul2022. GW230109KL - Submission Form dated 9Jan2023. NSW220513KL_IPE - Submission Form dated 13May2022. NSW221009NC - Submission Form dated 9Oct2022. NSW230108JD - Submission Form dated 8Jan2023.	
35.7	laboratory quality assurance and quality control documentation.	4	Full Compliance	EB2313402 Quality control report dated 11May2023.	
	RECORDING AND REPORTING				
36	The licensee must keep records of all non-compliances with this licence. These records must be adequate to enable the licensee to comply with the non-compliance notification conditions of this licence.	4	Full Compliance	Exceedance and Non Compliance Register 2023. Memo WBM to Operator RE Continuous surface water data quality assurance/quality control dated 25Aug2022. Correspondence between Operator and NT EPA relating to WDL 174-13: Notification of capture rate for continuous monitoring. Non-compliance records provided. IR019 in the audit period for BBDDP SSTV non-compliance (Al_F 3x the SSTV) as a non-compliance. Non-compliances associated with exceedances as covered in condition 40 are documented in the Exceedance and Non Compliance Register 2023. However, the non-compliance associated with inability to monitor continuous water level/flow over the 2021-2022 wet season, determined in the current audit period, is not included. Sufficient records separate to the Exceedance and Non Compliance Register 2023 have been retained.	Table 2.1 of the Memo WBM to Operator regarding Continuous surface water data quality assurance/quality control dated 25Aug2022 indicated SW09 (Glyde River) had 49%, SW21 (McArthur River) had 87% and SW31 (Emu Creek) had 53% data capture for the 2021 to 2022 wet season water level. This is below the required 90% or greater. Non-compliances associated with the exceedance are documented in the Exceedance and Non Compliance Register 2023. However, the non-compliance associated with inability to monitor continuous water level/flow for 2021 to 2022 period is not included. The 2023 WDL 174-14, relevant to the next audit period, lists those things that are considered non-compliances. The inability to undertake continuous monitoring is not listed and therefore would not be considered a non-compliance with WDL 174-14.

Condition	Condition/Requirement	Score	Compliance Level	Evidence	Comments
No. 37	The licensee must notify the Administering Agency of any non-compliance with this licence as soon as practicable after (and in any case within 24 hours after) first becoming aware of the non-compliance.	4	Full Compliance	Correspondence between Operator and NT EPA relating to WDL174-13 - Notification of Exceedance at BBDDP. Correspondence between Internal Operator and Internal Environment CRA relating to Automated alert for imported file 'ASW230102MW_BB - Field Data[2023-01-02-13-02-58].csv' to MP5_MRM. Correspondence between Operator to NT EPA subject MRM WDL 174-13: Notification of capture rate for continuous monitoring (related to monitoring before the audit period but submitted in the audit period. Memorandum - Continuous surface water data quality assurance/quality control dated 25Aug2022. Record of notification within 24 hours provided.	
38	The licensee must include in the notification of non-compliance the following information:		Refer to subconditions		
38.1	when the non-compliance was detected and by whom;	4	Full Compliance	Correspondence between Operator and NT EPA relating to WDL174-13 - Notification of Exceedance at BBDDP. The email notification included the date when the non-compliance was detected but not the time. In terms of who detected it there is not a person's name and only reference to it being MRM staff.	OBS: The time of detection of non-compliances as well as the date should be included in the notification to the Regulator.
38.2	the date and time of the non-compliance;	4	Full Compliance	Correspondence between Operator and NT EPA relating to WDL174-13 - Notification of Exceedance at BBDDP. The date and time of the sampling is included.	
38.3	whether discharge was occurring at the time of the non- compliance and the source of the discharge; and	4	Full Compliance	Correspondence between Operator and NT EPA relating to WDL174-13 - Notification of Exceedance at BBDDP. The email notification states "No controlled discharge from McArthur River Mine was occurring at the time of sampling."	
38.4	a date when an incident investigation report will be submitted to the Administering Agency.	4	Full Compliance	Correspondence between Operator and NT EPA relating to WDL174-13 - Notification of Exceedance at BBDDP. The email notification states that a report would be provided within 10 business days.	
39	Within 10 business days of notifying the Administering Agency of any non-compliance, or a timing otherwise agreed by the Administering Agency, the licensee must provide the Administering Agency an investigation report that includes:	4	Full Compliance	Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Investigation report provided on 19Jan2023, which is within 10 business days from 5Jan2023.	

Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
39.1	when the non-compliance was detected and by whom;	4	Full Compliance	Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Operator internal correspondence relating to WDL174-13 - Investigation Report IR019 (forwarding evidence of regulatory receipt of submission). Condition 39 Investigation Report submitted to NTEPA 19Jan2023. Attachment A - Final Laboratory Report dated 12Jan2023 The investigation report states "The subject result at BBDDP was detected by MRM staff on 12 January 2023, upon receipt of the final laboratory results."	
39.2	the date and time of the non-compliance;	4	Full Compliance	Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Condition 39 Investigation Report dated submitted to NTEPA 19Jan2023. Attachment A - Final Laboratory Report dated 12Jan2023. Date and time outlined in the Condition 39 Investigation Report.	
39.3	whether discharge was occurring at the time of the non- compliance and the source of the discharge and monitoring data of the discharge;	4	Full Compliance	Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Condition 39 Investigation Report submitted to NTEPA 19Jan2023. Attachment A - Final Laboratory Report dated 12Jan2023. Discharge occurring outlined in Table 2 of the Condition 39 Investigation Report	
39.4	the actual and potential causes and contributing factors to the non-compliance;	4	Full Compliance	Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Condition 39 Investigation Report submitted to NTEPA 19Jan2023. Attachment A - Final Laboratory Report dated 12Jan2023. Actual and potential causes outlined in the Condition 39 Investigation Report	
39.5	the risk of environmental harm arising from the non-compliance;	4	Full Compliance	Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Condition 39 Investigation Report submitted to NTEPA 19Jan2023. Risk of environmental harm outlined in the Condition 39 Investigation Report.	

Condition	Condition/Paguiroment	Scoro	Compliance Lovel	Evidence	Comments
No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
39.6	all water quality monitoring data collected in accordance with Appendix 4 for monitoring sites SW08, SW09, SW11, SW12, SW21, SW28, SW29, SW31, and SW32 (as shown in Appendix 2) collected for the date the non-compliance was triggered and three sampling rounds prior to the non-compliance being detected;	N/A	Not Applicable	Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Condition 39 Investigation Report submitted to NTEPA 19Jan2023. Attachment A - Final Laboratory Report dated 12Jan2023. The results for monitoring sites specifically listed in this condition (SW08, SW09, SW11, SW12, SW21, SW28, SW29, SW31, and SW32) are not listed within the evidence provided. However, given that the sampling in question is from Bing Bong Dredge Discharge Point (BBDDP) the mine site monitoring would not be relevant.	
39.7	available flow rates for the McArthur River, Barney Creek, Surprise Creek, Emu Creek and Glyde River flow rate at SW11 to demonstrate any influence these creeks and rivers may have had on the exceedance of trigger value;	N/A	Not Applicable	Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Condition 39 Investigation Report submitted to NTEPA 19Jan2023. Attachment A - Final Laboratory Report dated 12Jan2023. The available flow rates are not listed within the evidence provided. However, given that the sampling in question is from Bing Bong Dredge Discharge Point (BBDDP) the flow rates at the rivers and creeks surrounding the mine site would not be relevant.	
39.8	rainfall recorded at the site prior to the exceedance of trigger values and non- compliance occurring;	4	Full Compliance	Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Condition 39 Investigation Report submitted to NTEPA 19Jan2023. Attachment A - Final Laboratory Report dated 12Jan2023Attachment A - Final Laboratory Report dated 12Jan2023. Rainfall for the 14 days prior to the exceedance listed in Condition 39 Investigation Report.	
39.9	the action(s) that have or will be undertaken to mitigate any environmental harm arising from the non-compliance;	4	Full Compliance	Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Condition 39 Investigation Report submitted to NTEPA 19Jan2023. Attachment A - Final Laboratory Report dated 12Jan2023. The Condition 39 Investigation Report states "Given the subject result did not pertain to MRM or BBLF operations, and As_F at BBDDP has returned to below the SSTV, no mitigating or corrective actions are required by MRM to resolve the subject result".	

ndition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
39.10	corrective actions that have or will be undertaken to ensure the non-compliance does not reoccur; and	4	Full Compliance	Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Condition 39 Investigation Report submitted to NTEPA 19Jan2023. Attachment A - Final Laboratory Report dated 12Jan2023. The Condition 39 Investigation Report states "Given the subject result did not pertain to MRM or BBLF operations, and As_F at BBDDP has returned to below the SSTV, no mitigating or corrective actions are required by MRM to resolve the subject result".	
39.11	if no action was taken, why no action was taken.	4	Full Compliance	Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Correspondence between Operator and NTEPA relating to WDL174-13 - Investigation Report IR019. Condition 39 Investigation Report submitted to NTEPA 19Jan2023. Attachment A - Final Laboratory Report dated 12Jan2023. The reasons for no actions being undertaken are outlined in the Condition 39 Investigation Report.	
40	The licensee must ensure there is no:		Refer to subconditions		
40.1	exceedance of a trigger value at SW11, as specified in Appendix 3, on three consecutive sampling occasions as a result of the activity; or	4	Full Compliance	2022-23 Wet Season Exceedance Reporting Memorandum dated 14Dec2022. 2022-2023 Surface Water Data. Exceedance Memorandum outlines the necessary reporting parameters. Spot checks were undertaken by the Independent Monitor of sampling results for Iron, Lead, Cadmium, Cobalt and Arsenic at SW11 and while there was one instance where Iron was above the trigger value this was only for one sampling event.	
40.2	exceedance greater than or equal to three times a trigger value at SW11 as a result of the activity;	4	Full Compliance	2022-2023 Surface Water Data. Spot checks were undertaken by the Independent Monitor of sampling results for Iron, Lead, Cadmium Cobalt and Arsenic at SW11 and while there was one instance where Iron was above the trigger value this was only for one sampling event.	
41	The licensee must keep records of all exceedances of trigger values specified in Appendix 3 Table 1. These records must be adequate to enable the licensee to comply with the non-compliance notification conditions of this licence.	4	Full Compliance	Exceedance and Non Compliance Register 2023. Memo WBM to Operator RE Continuous surface water data quality assurance/quality control dated 25Aug2022. Correspondence between Operator and NT EPA relating to WDL 174-13: Notification of capture rate for continues monitoring.	

ondition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
42	The licensee must submit a completed Annual Return to the Administering Agency by 31 August of each year, which relates to the preceding 12 month period.	4	Full Compliance	Correspondence between Operator and DEPWS relating to 2021/2022 WDL Annual Return & Monitoring Report. Annual Return 2021-2022. Correspondence between Operator and DEPWS relating to WDL Monitoring Report and Annual Return. Annual Return was submitted on 31Aug2022 as required in the audit period.	The annual return submitted 31Aug2022 did include all non-compliances for the 2021 to 2022 audit period, including related to inability to monitor continuous water flow.
43	The licensee must provide to the Administering Agency a Monitoring Report, as prescribed by the licence which relates to the preceding 1 May to 30 April period by 31 August each year.	4	Full Compliance	Correspondence between Operator and DEPWS relating to 2021/2022 WDL Annual Return & Monitoring Report (relevant to the previous audit period but submitted in this audit period). 2022 Waste Discharge Licence (WDL) 174-13 Annual Monitoring Report (relevant to the previous audit period but submitted in this audit period). Correspondence between Operator and DEPWS relating to WDL Monitoring Report and Annual Return (relevant to the previous audit period but submitted in this audit period). The 2021 to 2022 audit period annual report was submitted on time on 31Aug2022.	
44	The licensee must ensure that each Monitoring Report is prepared in consultation with a Qualified Person to determine the relevance of the information being provided as it relates to the waste discharge component of the site and in the format described in the National Water Quality Management Strategy, Australian Guidelines for Water Quality Monitoring and Reporting, Chapter 7 and must include:	4	Full Compliance	Correspondence between Operator and DEPWS relating to 2021/2022 WDL Annual Return & Monitoring Report (relevant to the previous audit period but submitted in this audit period). 2022 Waste Discharge Licence (WDL) 174-13 Annual Monitoring Report (relevant to the previous audit period but submitted in this audit period). The 2022 Waste Discharge Licence (WDL) 174-13 Annual Monitoring Report (relevant to the previous audit period but submitted in this audit period) states "This Monitoring Report and its appendices have been generally structured consistent with Chapter 7 of the Guideline. This includes the provision of the executive summary and primary technical report. This Monitoring Report is based on reviews completed by the qualified specialists WRM Water & Environment Pty Ltd (WRM)."	

	charge Licence Compliance Workbook - Operator	2023 - A	udit Period 01 May 2	2022 to 30 April 2023	
Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
44.1	a data analysis and interpretation using the National Water Quality Management Strategy, Australian Guidelines for Water Quality Monitoring and Reporting, Chapter 6;	4	Full Compliance	Correspondence between Operator and DEPWS relating to 2021/2022 WDL Annual Return & Monitoring Report (relevant to the previous audit period but submitted in this audit period). 2022 Waste Discharge Licence (WDL) 174-13 Annual Monitoring Report (relevant to the previous audit period but submitted in this audit period). Waste Discharge Licence 174-13 Monitoring Report 1 May 2021 to 30 April 2022 (relevant to the audit period but submitted after the audit period) states "This Monitoring Report has been generally structured consistent with Chapter 6 of the Guideline. This includes: • analysis of changes in time and space (Section 4); • checks for data integrity (Appendix A); • comparison of site and water quality guidelines (Section 6); and • interpretation in relation to study objectives (Section 7)."	
44.2	a tabulation of all monitoring data collected as required as a condition of this licence and any additional data used as part of the analysis and interpretation undertaken in the report, to be submitted in electronic Microsoft Excel format;	4	Full Compliance	Correspondence between Operator and DEPWS relating to 2021/2022 WDL Annual Return & Monitoring Report (relevant to the previous audit period but submitted in this audit period). 2022 Waste Discharge Licence (WDL) 174-13 Annual Monitoring Report (relevant to the previous audit period but submitted in this audit period). Waste Discharge Licence 174-13 Monitoring Report 1 May 2021 to 30 April 2022 (relevant to the audit period but submitted after the audit period) states "Tabulation of data required under the monitoring schedules listed in Conditions 26 and 27 is provided in electronic Microsoft Excel format (Attachment 6). The data required under the specialist biota monitoring listed in Condition 28 is provided in the EMR (Attachment 3) and its Appendices. "	The submission of the 2021/2022 WDL Annual Monitoring Report dated 31Aug2022 included tabulated excel data.
44.3	includes long term trend analysis of monitoring data to demonstrate any environmental impact associated with the activity over a minimum period of three years (where the data is available);	4	Full Compliance	Correspondence between Operator and DEPWS relating to 2021/2022 WDL Annual Return & Monitoring Report. 2022 Waste Discharge Licence (WDL) 174-13 Annual Monitoring Report (relevant to the previous audit period but submitted in this audit period). Waste Discharge Licence 174-13 Monitoring Report 1 May 2021 to 30 April 2022 (relevant to the audit period but submitted after the audit period states "A summary of long term trends for surface water sites in the McArthur River has been provided from 1 January 2008 (where data was available) in Section 4.3 of this report. Cease to flow conditions were observed for all monthly observations at the Bing Bong Dredge Spoil Drain, and hence no water quality sampling was undertaken during the reporting period. As such, please refer to Waste Discharge Licence 174-10 Monitoring Report 1 June 2017 – 31 May 2018 (MRM, 2018) for long term trend analysis of Bing Bong Dredge Discharge Point (BBDDP) monitoring data. Long term trend analysis for the various monitoring programs is also provided in the EMR (Attachment 3) and its Appendices."	

ondition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
44.4	includes mine derived loads entering the McArthur River from the mine site for the contaminants listed in Appendix 3 Table 1;	4	Full Compliance	Correspondence between Operator and DEPWS relating to 2021/2022 WDL Annual Return & Monitoring Report. 2022 Waste Discharge Licence (WDL) 174-13 Annual Monitoring Report (relevant to the previous audit period but submitted in this audit period). Waste Discharge Licence 174-13 Monitoring Report 1 May 2021 to 30 April 2022 states "refer to Section 5 and Attachment 5." Section 5 is the analyte loads section and Attachment 5 is the 2021/22 Mine Derived Analyte Loads Assessment.	
44.5	compares the mine derived load for each contaminant listed in Appendix 3 table 1 against the background loads in the McArthur River (SW11 and SW21) and Glyde River (SW09);	4	Full Compliance	Correspondence between Operator and DEPWS relating to 2021/2022 WDL Annual Return & Monitoring Report. 2022 Waste Discharge Licence (WDL) 174-13 Annual Monitoring Report (relevant to the previous audit period but submitted in this audit period). Waste Discharge Licence 174-13 Monitoring Report 1 May 2021 to 30 April 2022 states "refer to Section 5 and Attachment 5." Section 5 is the analyte loads section and Attachment 5 is the 2021/22 Mine Derived Analyte Loads Assessment.	
44.6	a comparison of the mine derived contaminant loads referred to in Condition 44.4 against contaminant loads reporting to the McArthur River from July 2017 to June 2018;	4	Full Compliance	Correspondence between Operator and DEPWS relating to 2021/2022 WDL Annual Return & Monitoring Report. 2022 Waste Discharge Licence (WDL) 174-13 Annual Monitoring Report (relevant to the previous audit period but submitted in this audit period). Waste Discharge Licence 174-13 Monitoring Report 1 May 2021 to 30 April 2022 states "refer to Section 5 and Attachment 5." Section 5 is the analyte loads section and Attachment 5 is the 2021/22 Mine Derived Analyte Loads Assessment. Attachment 5 compares annual managed release loads since 2017/18.	
44.7	an assessment of all monitoring data (including flow rate and calculated volume from each river contributing to water quality at SW11) and whether the activity has been conducted in a manner that has ensured the McArthur River is being protected at all times from mine related impacts.	4	Full Compliance	Correspondence between Operator and DEPWS relating to 2021/2022 WDL Annual Return & Monitoring Report. 2022 Waste Discharge Licence (WDL) 174-13 Annual Monitoring Report (relevant to the previous audit period but submitted in this audit period). Waste Discharge Licence 174-13 Monitoring Report 1 May 2021 to 30 April 2022 includes "refer to Section 6 and Attachment 3". Section 6 is the discussion and Attachment 3 is the EMR 2021 - 2022 Appendix Q - Surface Water Monitoring Report 2021-22 which provides a summary of monitoring data and the protection status of the McArthur River. The 2021/22 Mine Derived Analyte Loads Assessment is also relevant to meet the requirement of this condition.	

dition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments
45	The licensee must undertake an assessment of available monitoring data to determine the sources entering the Glyde River which are contributing to the water quality exceedance of surface water quality trigger values at SW11 prescribed in Appendix 3.	4	Full Compliance	Glyde River Backflow Assessment version 5 dated 03Dec2021 (before the audit period). Glyde River Mixing Zone Assessment version 3 dated 30Nov2021. Correspondence between Operator and DEPWS relating to WDL 174-12 Condition 47 Submission (before the audit period). Correspondence between Operator and NTEPA relating to WDL 174-12 - Condition 47 Report (before the audit period). Correspondence between NTEPA and Operator relating to WDL 174-12 - Condition 47 Report (before the audit period). The Operator has provided the Glyde River Backflow Assessment dated 3 Dec 2021 and the Glyde River Mixing Zone Assessment dated 30 November 2021. The Operator has also Included evidence of submission and acknowledgement of receipt by the Department.	This was due and completed before the audit period.
46	The assessment required by condition 45 must quantify and qualify the extent those sources are contributing to surface water quality exceedances at SW11.	4	Full Compliance	Glyde River Backflow Assessment version 5 dated 03Dec2021 (before the audit period). The Glyde River Backflow Assessment states in the executive summary "Based on the model results presented in Table 1.1, during low flows in the McArthur River and medium flows in the Glyde River, the water quality in the Glyde River at SW09 is not affected by McArthur River backwater. Further, on all four instances, monitoring data showed that the exceedances coincided with higher NO3 levels in the Glyde River at SW09 and significantly lower NO3 levels in the McArthur River at SW12. Based on the advection-dispersion model results and monitoring data, the NO3 SSTV exceedances at SW11 during the 2020/21 wet season were caused by Glyde River water. The exceedances could not have been caused by McArthur River water from upstream of the Confluence."	This was due and completed before the audit period.
47	The licensee must provide a report to the Administering Agency on the methodology, any assumptions and findings of the assessment required in condition 45 by 30 November 2021.	4	Full Compliance	Glyde River Backflow Assessment version 5 dated 03Dec2021 (before the audit period). WDL 174-12 Glyde River Backflow Assessment dated 3Dec2021 (before the audit period). Correspondence between Operator and DEPWS relating to WDL 174-12 - Condition 47 Report (before the audit period). Correspondence between Operator and DEPWS relating to WDL 174-12 - Condition 47 Report (before the audit period). The report was issued to the Administering Agency on 30Nov2021 and then revision 5 dated 03Dec2021 was subsequently provided. The original submission met the due date of 30Nov2021 so this is compliant.	This was due and completed before the audit period.

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Waste Disc	Waste Discharge Licence Compliance Workbook - Operator 2023 - Audit Period 01 May 2022 to 30 April 2023										
Condition No.	Condition/Requirement	Score	Compliance Level	Evidence	Comments						
	The licensee shall provide an updated Adaptive Management Plan by 1 October 2021 to include performance indicators, action and response to ensure wastewater leaving the mine site will meet the specific trigger values at SW11 prior to discharge and does not exceed the mine derived contaminant loads reporting to the McArthur River from July 2017 to June 2018.	4	Full Compliance	Correspondence between Operator and DEPWS relating to Updated Adaptive Management Plan (October 2021) (before the audit period). Correspondence between Operator and DEPWS relating to Adaptive Management Plan October 2021 Update Submission (before the audit period).	This was due and completed before the audit period.						



Appendix C
Authorisation Compliance Workbook - DITT

5 May 2022 Authorisation Condition No.	18 June 2021 Authorisation	n Condition/Requirement		Relevant to DITT	Score	Compliance Level	Evidence 2023	Comments 2023
SCHEDULE A Mining management plan and reporting								
6	6	The Operator must on 31 August 2021 and on each anniversary of that date (or such other date as nominated by the Operator and approved by the Minister), review the approved MMP and if necessary, amend the MMP.	1	1	4	Full Compliance	Correspondence between DITT and Operator relating to Annual Review of MMP (Condition 6). Correspondence between Operator and DITT relating to Annual Review of MMP (Condition 6). EMR 2021-22 dated 31Aug2022.	DITT obtained confirmation from the Operator of their compliance with this condition demonstrating a process is in place.
7.a	7.a	surface water;	1	1	4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator acknowledging receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission. Correspondence between Operator and DITT relating to Q1 Data. The file submitted included surface water analyses.	
7.b	7.b	groundwater;	1	1	4	Full Compliance	Annual data package (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator acknowledging receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission. Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included groundwater levels and analytical results.	
7.c	7.c	dust	1	1	4	Full Compliance	Annual data package 1May2021 to 30Apr2022 (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator acknowledging receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission. Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included dust analyses.	
7.d	7.e	sediments;	1	1	4	Full Compliance	Annual data package (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator acknowledging receipt of the Annual Data package. Correspondence between Operator and DITT relating to Annual Data Submission. Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included fluvial sediment.	
7.f	7.f	gas; and	1	1	4	Full Compliance	Annual data package (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator acknowledging receipt of the Annual Data package. Correspondence between Operator and DITT relating to Annual Data Submission. Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included sulphur dioxide (SO ₂) monitoring data for when it was undertaken.	
7.g	7.g	water transfers and discharges (including dates, times and volumes).	1	1	4	Full Compliance	Annual data package (2105 - 2204 DITT Data Final). Correspondence between DITT and Operator acknowledging receipt of the annual data package. Correspondence between Operator and DITT relating to Annual Data Submission. Correspondence between Operator and DITT relating to Data Q1 2022. The file submitted included water transfers and discharges.	DITT not aware of any discharges in the current audit period (however, data provided in the audit period is relevant to the previous audit period and included a discharge).

Authorisation Compliance Workbook - DITT

5 May 2022	18 June 2021		Condition	Relevant		Compliance		
	Authorisation Condition No.	Condition/Requirement	included 2023 audit	to DITT	Score	Level	Evidence 2023	Comments 2023
8		From the date of authorisation of the Overburden Management Project, the Operator must provide an "as built" construction report, for the structures that the approved MMP specifies require "as built" construction reports, at the completion of each structure approved as per the MMP, within 30 days upon construction being finalised.	1	1	2	Part Compliance (moderate)	DITT also acknowledged receipt of the SPROD construction report in the audit period. TSF Raising – General Specification for Design and Construction states in Section 5.4.8 "Records documenting the construction of the raises are essential for ongoing management and design of future TSF raises. The records should be collated and presented in a Construction Report along with "As-Constructed" drawings and survey for the raise."	
9		The Operator must submit on or before 31 August 2021 and on each anniversary of that date (or such other date as nominated by the Operator and approved by the Minister), an EMR for the previous year in the reporting period as agreed with the Department.	1	1	3	Part Compliance (High)	evidence of formal communication of initial assessment at regulatory meeting.	DITT advised that they received the 31Aug2022. EMR is discussed at technical working groups. DITT has seen progress on pulling together various activities and how they relate to environmental objectives in the EMRs over time (i.e. rather than reporting for reporting's sake there has been consolidation towards environmental aspects). Note part compliance due to lack of formal correspondence from the Delegate. OFI: DITT to formally assess the annual EMR within an agreed timeframe
Security and Levy 10		The Operator must provide to the Minister a security of \$476,476,968 in the form of cash or an unconditional bank guarantee prior to undertaking any mining activities authorised by this Variation of Authorisations 0059-01 and 0059-02.	1	1	4	Full Compliance	Independent Monitor sighted email evidence of payment of the increase in the security of \$71,360,300 via \$40,000,000 and \$31,360,300 and receipted by NT government. DITT showed the Independent Monitor that the second part of the payment was received.	The security provided to the Minister has increased from \$405,116,668 in Authorisation 18Jun2021 to \$476,476,968 on 5May2022.
11.a	11.a	independent third party assessment of the security by a qualified person approved by the Minister (also refer Condition 40);	1	1	N/A	Not Applicable		DITT advised no assessment was required in the audit period.
11.b	11.b	amended MMP;	1	1	N/A	Not Applicable		DITT advised that there was no amended MMP in the audit period so no assessment was required. An MMP amendment was submitted 5May2023 (outside the audit period).
11.c	11.c	amendment to the Unplanned Closure Plan.	1	1	4	Full Compliance	2023 UCP Submission dated 30Sep2022. Independent Audit of 2023 UCP dated 23Jan2023. Correspondence between Operator and DITT relating to Unplanned Closure Plan and Security Assessment (independent audit attached). Correspondence between DITT and Operator relating to Unplanned Closure Plan and Security Assessment (DITT Acknowledgement). Correspondence between DITT and Operator relating to Unplanned Closure Plan and Security Assessment - submission. Correspondence between DITT and Operator relating to UCP and MMP amendments (DITT acknowledgement). Correspondence between Operator and DITT relating to 2023 UCP Assessment - RFI. Liaison occurred between DITT and the Operator and the security requirements were updated in the Authorisation in May 2023 (after the audit period).	An amendment to the Unplanned Closure Plan was submitted in August 2021 (before the audit period) and was approved. Operator changed to requesting a three year approval and inclusion of Unplanned Closure to provide more surety around the approval timing to not disrupt operations. Assessment undertaken by Phronis Consulting. Another amendment to the Unplanned Closure Plan was submitted on 30Sep2022. Phronis Consulting prepared an independent assessment that was submitted to DITT on 23Jan2023. The Authorisation from May 2023 updates the security related to this assessment.

Authorisation (Compliance Wo	rkbook - DITT Audit period 01 May 2022 to 30 April 2023	3					
-	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	Relevant to DITT	Score	Compliance Level	Evidence 2023	Comments 2023
12		The revised security amount to be provided under Condition 10 is to be provided prior to creating the new disturbance, covered under the revised security as per written notification from the Department. For the avoidance of doubt, the Operator must provide the revised security amount in the form of cash or an unconditional bank guarantee to the Minister.	1	1	4	Full Compliance	Independent Monitor sighted email evidence of payment of the increase in the security of \$71,360,300 via \$40,000,000 and \$31,360,300 and receipted by NT government 20May2022.	The email from DITT to the Operator for receipt of the final security increase payment stated "Please be advised that activities authorised by Authorisation 0059 may now commence". DITT is delivered an aerial photograph from the Operator annually. This would assist to identify any works outside of the approved footprint. However, no instances of concern have occurred to date. OBS: DITT may consider requesting drone data to allow comparison of the real data against the shapefiles of the approved extent of works used to calculate the security.
13		Each financial year, upon receipt of a written notice by the Minister as to the levy payable for that financial year, the Operator must pay a levy to the Mining Remediation Fund of an amount calculated in accordance with the Act and as stated by the Minister in the notice.	1	1	4	Full Compliance	Tax invoice for payment of \$4,764,768. MRM Levy Invoices 2021_22, 2022_23 and 2023_24 - Payment Confirmation. DITT entered payment in their system on 5Sep2022.	It appears the payment was receipted on 5Sep2022, which is a Monday and it was due the preceding Friday.
Overburden Mana	ement Project	The Operator must provide written notice to the Minister and NT EPA if						Note: the 18June2021 Authorisation referred to "in accordance with
15	15	it alters or proposes to alter the McArthur River Mine Overburden Management Project and/or commitments, safeguards or mitigation measures in the Environmental Impact Statement in such a manner that the environmental significance of the action may have changed. The referral should be made in accordance with the Environment Protection Act 2021.	1	1	N/A	Not Applicable		clause 14A of the Environmental Assessment Administrative Procedures 1984" instead of the Environment Protection Act 2021. DITT has not received written notice (via the Minister) of any activities in the audit period contrary to those approved. An MMP amendment was submitted 5May2023 (outside the audit period).
16		Within 18 months of the date of authorisation of the Overburden Management Project, unless otherwise agreed in writing by the Department, the Operator must submit a plan to the Department for review, that:	1	1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between and Operator relating to correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
16.a	16.a	Enables measurement of total loads of lead and zinc and is consistent with requirements of Condition 27;	1	1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes. Included in Section 4.5.1 of the WMP.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).

Authorisation	Compliance Wo	rkbook - DITT Audit period 01 May 2022 to 30 April 202	3					
Authorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	to	Score	Compliance Level	Evidence 2023	Comments 2023
16.b	16.b	Quantifies and ensures annual loads of lead and zinc discharged to the McArthur River in future years (July to June) do not exceed the loads discharged in 2017-2018 (as per Condition 68(e)) taking into account seasonal variations in rainfall, and subject to future annual load calculations;	1	1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT subject: RE: submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes. Included in Sections 4.5.1 and 4.5.3 of the WMP.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
16.c	16.c	addresses recommendations and outcomes arising from audits of loads by the Independent Monitor;	1	1	N/A	Not Applicable		Future item. No audits of loads have been undertaken by the Independent Monitor.
16. d	16.d	include sufficient detail to inform the development of monitoring and management measures (including but not limited to early warning alerts and intervention levels), as part of the site wide AMP (Condition 45);		1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes. Section 4 of the WMP discusses the Environmental Monitoring Schedule.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
16.e	16.e	once approved by the Department, be implemented by the Operator.	1	1	3	Part Compliance (High)	The Independent Monitor has sighted evidence stating that the condition has been satisfied, however, formal correspondence is outstanding	OFI: Provide more timely responses from DITT on review/approval of submitted documents.
17.a	17.a	submit a plan to the Department for review, that shall include:	1	1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).

Authorisation (Compliance Wor	kbook - DITT Audit period 01 May 2022 to 30 April 2023	3					
Authorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	to	Score	Compliance Level	Evidence 2023	Comments 2023
17.a.i	17.a.i	site-specific trigger values determined in accordance with Australian and New Zealand Guidelines for Fresh and Marine Water Quality, 2018 framework, incorporating ANZECC (2000) guidelines, at appropriate monitoring locations, in accordance with Condition 27;	1	1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
17.a.ii	17.a.ii	a commitment that creeks on the mine site show long-term improving trends in water quality within 20 years after cessation of mining;	1	1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
17.a.iii	17.a.iii	methodology to calculate contaminant loads and contaminant concentrations entering creeks and the McArthur River using system modelling that must:	1	1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
17.a.iii.a	17.a.iii.a	use suitable site-specific data collected as part of Condition 26;	1	1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
17.a.iii.b	17.a.iii.b	be subject to review by the relevant independent panel;	1	1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).

F May 2022	10 June 2024		Condition	Dolovent				
uthorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	to	Score	Compliance Level	Evidence 2023	Comments 2023
17.a.iii.c	17.a.iii.c	detail specific assumptions to be tested including but are not limited to:	1	1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
17.a.iii.c.i	17.a.iii.c.i	groundwater flow paths;	1	1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
17.a.iii.c.ii	17.a.iii.c.ii	attenuation of metals from mine-derived wastes;	1	1	4	Full Compliance	Water Management Plan dated 13May2022. Correspondence between DITT and Operator relating to DITT correspondence with DEPWS re WMP. Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to TRM: McArthur River Mine - NT EPA review of Water Management Plan and Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to submission from MRM re Water Management Plan. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. MRM TWG Meeting Minutes. Conditions 16+17 - Mining Officer Notes.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
17.b	17.b	once approved by the Department, implement the plan;	1	1	3	Part Compliance (High)	The Independent Monitor has sighted evidence stating that the condition has been satisfied, however, formal correspondence is outstanding/	OFI: Refer to OFI in condition 16.e.
17.c	17.c	incorporate the relevant findings from the plan into the AMP.	1	1	N/A	Not Applicable		
18	18	The Operator must provide a written response to the Department, if an independent technical panel's, required under Condition 21, review of the models and modelling outputs, and the data collection programs that informed the model development at Condition 17(a)(iii) address recommendations for improvements. All relevant outputs must be used to inform and update the AMP.	1	1	N/A	Not Applicable		No Independent technical panels have been established.
19.a	19.a	the results of the audit be provided within six (6) weeks to the Department and to the relevant independent panel;	1	1	4	Full Compliance	Waste Rock Handling Procedures audit site visit debrief was conducted on 16Jun2022, which is compliant as it wa less than 6 weeks from the audit.	Waste Rock Handling Procedures audit site visit debrief was conducted on 16 June 2022. No independent panel was in place. Draft report provided to DITT December 2022.
19.b	19.b	the Operator must provide a written response to the satisfaction of the Department where findings from the audit and review by the relevant panel includes matters that need to be addressed or areas for improvement.	1	1	N/A	Not Applicable		Future item. The report had not been finalised in the audit period so is considered N/A.
21		The Operator must provide funding and assist the Department to establish and operate an independent panel(s) of experts to advise on matters affecting the environmental performance of the NOEF, TSF and mine closure planning.	1	1	3	Part Compliance (High)	The Independent Monitor sighted evidence that terms of reference for the independent expert panels have been approved by the Minister (after the audit period), and the inaugural meeting of the Community Reference Group occurred on 27 July 2023 (after the audit period).	

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Authorisation	Compliance Wo	rkbook - DITT Audit period 01 May 2022 to 30 April 202	3					
Authorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	Relevant to DITT	Score	Compliance Level	Evidence 2023	Comments 2023
22	22	Within 12 months of date of authorisation of the Overburden Management Project, the Operator must submit a report to the Department for review, detailing the results of relevant studies undertaken to inform the requirements for implementation (including timelines) of a NOEF groundwater seepage interception and recovery system that:	1	1	3	Part Compliance (High)	compliance with condition 22. The Delegate has deferred the decision until the report has been considered by the NOEF Independent Expert Panel.	The Operator advised that NOEF seepage interception is of no value until 2027. DITT advised that they intend to obtain expert advice related to seepage interception from the NOEF independent panel and consider the matter is low risk and of a non-urgent nature. OFI: DITT to establish the Independent Panel (NOEF) or use an alternative expert review in the interim to assess requirement for the NOEF seepage interception trench and recovery system.
22.a	22.a	controls seepage to the Barney Creek diversion channel and the McArthur River;	1	1	4	Full Compliance	NOEF Interception Scheme Report VOA Condition 22 dated 13Nov2021. Correspondence between DITT and Operator relating to NOEF Interception Scheme – EPBC Condition 12 Report (outside audit period). Table 1 of the NOEF Interception Scheme Report states "The components of the interception scheme are presented in GHD (2020b). KCB (2020) concludes that the interception scheme would be ineffective if constructed in the short-medium term as the groundwater levels are being drawn down below the invert of Barney Creek. The interception scheme may be required after the Open Pit Lake has been established in approximately 2067. A Trigger Action Response Plan (TARP) for the monitoring and management of groundwater levels has been designed in consultation with third party experts and incorporated into the Adaptive Management Plan required under VOA 0059 Condition 93." Letter DITT to Operator subject NOEF Interception Scheme – EPBC Condition 12 Report ", we conclude that mitigation measures for NOEF seepage as baseflow to the BCD are not likely to be required for at least several decades and concur that installation of any dedicated interception infrastructure in the short term would not be beneficial. To counter the low likelihood of existing predictions and assessments underestimating the timing and magnitude of any significant NOEF seepage discharging to the BCD, the monitoring and TARP approach proposed by MRM is considered appropriate."	
22.b	22.b	achieves a recovering trend in the Barney Creek diversion channel and the old McArthur River channel (at SW06) water quality within 20 years of cessation of mining;	1	1	4	Full Compliance	Attachment A NOEF Interception Scheme Report VOA Condition 22 dated 13Nov2021. Table 1 of the NOEF Interception Scheme Report states "As above, the interception scheme would be ineffective within the specified time period, however, MRM is proposing to implement a TARP to ensure that an interception scheme is implemented at an appropriate time if required earlier than anticipated."	"The groundwater monitoring program and relevant TARP will be updated at a more appropriate time closer to cessation of mining operations (and the recovery of groundwater levels), in order to ensure a recovering trend in water quality in the Barney Creek Diversion Channel (including at SW06) within 20 years of cessation of mining. "
22.c	22.c	facilitates achieving requirements of Conditions 16 and 17.	1	1	4	Full Compliance	Attachment A NOEF Interception Scheme Report VOA Condition 22 dated 13Nov2021. Table 1 of the NOEF Interception Scheme Report states "As described, the interception scheme would be ineffective in the short-medium term, however, the implementation of the TARP will not prevent Conditions 16 and 17 from being addressed."	
23	23	Within 24 months of date of authorisation of the Overburden Management Project, the Operator must submit a NOEF geosynthetic liner cover system plan to the Department for review. The plan must:	1	1	4	Full Compliance	NOEF Geosynthetic Liner Cover System Testing Plan dated 31Oct2022. Correspondence between Operator and DITT relating to NOEF Geosynthetic Liner Cover System Testing Plan. Correspondence between DITT and Operator relating to NOEF Geosynthetic Liner Cover System Testing Plan. Plan pending DITT approval.	Was due 13Nov2022.
23.a	23.a	outline a process (including timelines) to test and evaluate (i.e. criteria) the constructability and effectiveness of geosynthetic liner cover options including a geosynthetic liner /compacted clay layer combination;	1	1	4	Full Compliance	NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022. The plan outlines a forecast that complies with satisfactory processes to test and evaluate aspects relating to the geosynthetic liner/compacted clay layer combination.	
23.b	23.b	include implementation of trials on rehabilitated stages of the NOEF;	1	1	4	Full Compliance	NOEF Geosynthetic Liner Cover System Plan dated 310ct2022. Operator has presented partial results for rehabilitation trials, as the trials are ongoing.	

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Authorisation	Compliance Wo	rkbook - DITT Audit period 01 May 2022 to 30 April 2023	3					
Authorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	to	Score	Compliance Level	Evidence 2023	Comments 2023
		identify relevant performance parameters must be monitored,					NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022.	
23.c	23.c	including but not limited to:	1	1	4	Full Compliance	Section 4.3 and 4.7 include additional performance parameters that are not specifically listed in Conditions 23.c.i to 23.c.v.	
		slope stability during extreme events;					NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022.	
23.c.i	23.c.i		1	1	4	Full Compliance	Section 4.1 details how slope stability is to be monitored and includes how the safety calculations are informed by extreme moisture and phreatic levels expected during foreseeable weather extremes.	
		cover performance as a result of heat effects;					NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022.	
23.c.ii	23.c.ii		1	1	4	Full Compliance	standards to be used based on soil type and temperature conditions.	
		tolerance of the geosynthetic liner to expected differential settlement;					NOEF Geosynthetic Liner cover System Plan dated 31Oct2022.	
23.c.iii	23.c.iii	section,	1	1	4	Full Compliance	Section 4.6 details how the tolerance of the geosynthetic liner is expected to be monitored for differential settlement performance including method and frequency of monitoring. Section 4.6.1 outlines that oedometer testing has demonstrated that the maximum settlement of the layer of the	
							geosynthetic liner should be limited to 8mm and at this level of movement the liner is capable of accommodating the movement without excessive stresses developing.	
		veracity of cover longevity predictions;					NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022.	
22 - 5	22 - 5		4	4		Full Committees	Section 4.8 details how evaluation of design basis and performance monitoring instrumentation are monitored for	
23.c.iv	23.c.iv		1	1	4	Full Compliance	consistency, accuracy, sensitivity and longevity. "ultimately, longevity predictions come from modelling of the slope and NOEF behaviour, both mechanical (slope stability), erodibility (cover sequence and vegetative cover models), and thermodynamic models (internal temperatures).".	
		likely long-term maintenance requirements.					NOEF Geosynthetic Liner Cover System Plan dated 31Oct2022.	
23.c.v	23.c.v		1	1	4	Full Compliance	Section 4.3 details how exposure of the liner to the sun or ongoing erosion or material property variations can impact upon stability and details the method and frequency of monitoring as described in Table 22. Section 4.4 describes how established vegetation needs to be routinely monitored including aspects such as biodegradation and root penetration and what predicative maintenance models will need to be implemented.	
							NOEF Geosynthetic Liner Cover System Plan.	
23.d.i	23.d.i	within three years from the submission of the plan;	1	1	N/A	Not Applicable		Future item. Due 12 November 2025.
23.d.ii	23.d.ii	every three years thereafter, to the relevant independent panel and the Community Reference Group for review, and shall be audited by the Independent Monitor. The Operator must provide a written response to the Department, if review from the relevant panels and Community Reference Group require matters to be addressed;	1	1	N/A	Not Applicable		Future item. Due three years after submission related to condition 23.d.
23.d.iii	23.d.iii	must be used to inform the AMP and closure planning for the mine.	1	1	N/A	Not Applicable		OBS: DITT should update this condition to clarify that the requirement relates to trial results and monitoring outcomes that should be used to inform the AMP and closure planning.
		The NOEF geosynthetic liner cover system plan, once approved by the Department, must be implemented by the Operator.					Plan pending internal DITT approval.	OFI: Refer to Condition 16.e.
23.e	23.e	bepartment, must be implemented by the operator.	1	1	3	Part Compliance (High)		
		Within five (5) years of the date of authorisation of the Overburden						Not triggered until five years after 13Nov2020.
24	24	Management Project, the Operator must submit a strategy to the Department that details the long-term disposal management of tailings into the mine pit void, submerged under a suitable depth of pit water. The plan must:	1	1	N/A	Not Applicable		DITT has not received an early submission of the strategy.
		include strategies on the tailings reprocessing and assessment of		_				Not triggered until five years after 13Nov2020.
24.a	24.a	residual chemical contaminants that may likely impact on meeting the requirements of Condition 16;	1	1	N/A	Not Applicable		

Authorisation (Compliance Wo	rkbook - DITT Audit period 01 May 2022 to 30 April 202	3					
Authorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	to	Score	Compliance Level	Evidence 2023	Comments 2023
24.b	24.b	be reviewed by the relevant independent panel.	1	1	N/A	Not Applicable		Not triggered until five years after 13Nov2020.
25	25	Once approved by the Department, the strategy developed in accordance with Condition 24 must be used to develop a plan five (5) years prior to cessation of mining, for approval by the Department. Any requirement to vary the approved disposal strategy or plan must be:	1	1	N/A	Not Applicable		Not triggered as required five years before mine closure.
25.a	25.a	applied for in writing to the Minister;	1	1	N/A	Not Applicable		Not triggered as required five years before mine closure.
25.b	25.b	based on leading practice and site conditions;	1	1	N/A	Not Applicable		Not triggered as required five years before mine closure.
25.c	25.c	supported by the relevant independent panel;	1	1	N/A	Not Applicable		Not triggered as required five years before mine closure.
25.d	25.d	notified to the NT EPA in accordance with Condition 15.	1	1	N/A	Not Applicable		Not triggered as required five years before mine closure.
26		Within 12 months of date of authorisation of the Overburden Management Project, the Operator must review and synthesise all available and relevant information to submit a revised water monitoring plan (surface water and groundwater) to the Department for review, ensuring the plan is capable of identifying and quantifying impacts of mining activities on the environmental values and beneficial uses of the McArthur River.	1	1	4	Full Compliance	Correspondence between Operator and DITT relating to McArthur River Mining – Variation of Authorisation 0059 Conditions 26 & 27 (before audit period). Technical Working Group Meeting 7Oct2021 minutes (before audit period). Check Monitoring Event December 2022 MRM Authorisation 0059 Report dated 10May2023 (including attachments). Correspondence between DITT and Operator relating to Water Management Plan Update acknowledging submission. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. DITT advised that the Operator requested an extension to align this timeframe with the 18 month time of condition 16 related to loads monitoring by letter and this was discussed at technical working group meetings. DITT has undertaken groundwater monitoring to compare with the Operator monitoring.	Due 13May2022 Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
27.a	27.a	allow for assessment of compliance with Condition 16 and include sufficient detail to inform/develop/update the AMP;	1	1	4	Full Compliance	No approval has been provided by DITT to the Operator in the audit period but the Authorisation dated 17May2023 now shows this condition as completed.	Due 13May2022. Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan). This condition is marked as completed in the Authorisation dated 17May2023.
27.b.i	27.b.i	quantify loads of lead and zinc entering the McArthur River each year;	1	1	4	Full Compliance	No approval has been provided by DITT to the Operator in the audit period but the Authorisation dated 17May2023 now shows this condition as completed.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan). This condition is marked as completed in the Authorisation dated 17May2023.
27.b.ii	27.b.ii	quantify impacts to water quality and trends in groundwater to determine that objectives and targets are being met, including the effectiveness of source control to reduce loads to as low as is reasonably practicable;	1	1	4	Full Compliance	No approval has been provided by DITT to the Operator in the audit period but the Authorisation dated 17May2023 now shows this condition as completed.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan). This condition is marked as completed in the Authorisation dated 17May2023.
27.b.iii	27.b.iii	develop appropriate future trigger values for waterways on the mine site and the McArthur River in accordance with the ANZECC Guidelines. In the interim, the trigger values in the most current WDL shall be used;	1	1	4	Full Compliance	No approval has been provided by DITT to the Operator in the audit period but the Authorisation dated 17May2023 now shows this condition as completed.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan). This condition is marked as completed in the Authorisation dated 17May2023.
27.c	27.c	be prepared in consultation with the NT EPA;	1	1	4	Full Compliance	The Mining Officer notes showed for 10Nov2022 that DITT had assessed the need for NT EPA to be consulted. The notes indicated that in Dec2022 the Operator presented at an NT EPA meeting.	·
27.d	27.d	be prepared in consultation with the relevant independent panel;	1	1	3	Part Compliance (High)	The twelve month timeframe for this plan to be prepared has passed and no independent panel for consultation about the plan had been established in the audit period so a part compliance has been recorded.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan). No Independent technical panels have been established. OFI: DITT to establish the independent panels (NOEF and TSF) so that consultation during the preparation of future management plans can occur.

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Authorisation (Compliance Wo	rkbook - DITT Audit period 01 May 2022 to 30 April 202	3					
-	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	to	Score	Compliance Level	Evidence 2023	Comments 2023
		once approved by the Department, be implemented by the Operator;					Plan is pending letter of approval from DITT.	Water Management Plan - Related conditions: 16+17 (water quality) &
27.e	27.e		1	1	3	Part Compliance (High)		26+27 (synthesised plan).
								OFI: Refer to Condition 16.e.
27.f	27.f	be subject to consultation with the relevant independent panel in the event that the plans requires updating (e.g.to maintain the currency of the monitoring network);	1	1	N/A	Not Applicable		Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan). Independent Monitor is not aware of the Water Management Plan being updated that would trigger this condition. However, no independent technical panels, required under Condition 21.
27.g.i	27.g.i	are reported annually to the Department;	1	1	3	Part Compliance (High)	Sections 4.6.1 and 4.6.3 include reference to annual assessment of groundwater performance indicator bores and the complete groundwater monitoring dataset, respectively with reporting in the EMR. Section 5 refers to contingency measures and states "Management measures will be reported in the EMR". The plan does not explicitly require results of the program to be reported annually to DITT.	Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan). OFI: DITT to request the Operator to update the WMP to include the requirements to: report results annually to DITT; require the Independent Monitor audit of the results every three years; and publish the results of the program on the Operator's website. Alternately, reword Conditions 27.g.i., ii. and iii. so that they refer to these activities as needed to be done but not necessarily for the plan to ensure they are done.
		are audited by the Independent Monitor every three years;				Dart Campliane	Section 8.1 states: "The Independent Monitor is required to review the AMP every three years in accordance with NT EPA Assessment Report."	
27.g.ii	27.g.ii		1	1	3	(High)	(NT EPA, 2018a) Recommendation 29.	26+27 (synthesised plan).
		be published on the Operator's website.				Part Compliance	There was no evidence received to demonstrate that the Water Management Plan ensures that results of the program are published on the Operator's website.	OFI: Refer to Condition 27.g.i. Water Management Plan - Related conditions: 16+17 (water quality) & 26+27 (synthesised plan).
27.g.iii	27.g.iii		1	1	3	(High)		OFI: Refer to Condition 27.g.i.
28	28	Within 18 months of date of authorisation of the Overburden Management Project, the Operator must submit a research and investigation program to the Department for review that establishes the concentration of mine-derived contaminants at which chronic and acute impacts to biota of relevance to the McArthur River system occur using recognised and accepted eco-toxicological testing, and:	1	1	4	Full Compliance	Correspondence between Operator and DITT relating to Condition 28 Submission – Ecotoxicology Research and Investigation Program (before audit period). Correspondence between DITT and Operator relating to VOA 0059 Condition 28 – Ecotoxicology research and investigation program. Correspondence between DITT and Operator relating to Auth 0059 Condition 28 - MRM Ecotox research and investigation program.	
		the results of this program must be integrated with other relevant					Correspondence between DITT and Operator relating to VOA 0059 Condition 28 – Ecotoxicology research and	This condition is marked as completed in the Authorisation dated
28.a	28.a	programs, monitoring programs and management plans;	1	1	4	Full Compliance	Evidence that DITT has checked for compliance is in the Letter DITT to Operator that says "Pursuant to Condition 28 the department has reviewed the submission and, taking the following into account, consider the condition requirements to have been satisfied: •MRM state that the program was undertaken in accordance with Recommendation 14 of the NT EPA's Assessment Report 86; •On the basis of program results, MRM applied to the Department of Environment, Parks and Water Security to amend the site-specific trigger values in waste discharge licence WDL 174-12, and WDL 174-13 was subsequently approved on 10 March 2022; •MRM note that the Adaptive Management Plan (AMP) is directly linked to the site-specific trigger values detailed in the WDL and would therefore incorporate any values revised in the WDL; and •MRM submitted an amended AMP to the department (for review) on 13 November 2021."	17May2023.
28.b	28.b	the plan once approved by the Department must be implemented by the Operator.	1	1	4	Full Compliance	Correspondence between DITT and Operator relating to Auth 0059 Condition 28 - MRM Ecotox research and investigation program. DITT approval of ecotox report. Correspondence between DITT and Operator relating to Acceptance and Approval Letter. The Ecotox research and investigation program has been approved and groundwater monitoring has been undertaken by DITT to verify the Operator groundwater monitoring results.	Implementation will be reviewed as part of the EMR review.

Authorisation	18 June 2021 Authorisation Condition No.		Condition included 2023 audit	to	Score	Compliance Level	Evidence 2023	Comments 2023
29	29	By 13 May 2022 the Operator must provide to the department a monitoring program that provides improved understanding of aquatic ecosystems in the McArthur River from changing water flows, levels and quality. The program must:	1	1	4	Full Compliance	Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to MRM Aquatic Ecology Management Plan - Condition 36 & 37 - submission. Correspondence between DITT and Operator relating to Aquatic Ecology Management Plan (acknowledgement email). Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. Correspondence between NTEPA and Operator relating to MRM - Sawfish Plan - comments from DEPWS Flora and Fauna Division. MRM TWG Meeting Minutes (verbal approval). DITT acknowledged receipt and approved verbally at the TWG.	Note the June 2021 Authorisation had different wording of the following that has not been audited as it was not triggered: Within 18 months of date of authorisation of the Overburden Management Project, the Operator must submit an aquatic ecosystem monitoring program to DITT for review that provides improved
29.a		be consistent with the aquatic ecology monitoring and management plan required under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) Approval 2014/7210;	1	1	4	Full Compliance	Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to MRM Aquatic Ecology Management Plan - Condition 36 & 37 - submission. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. Correspondence between NTEPA and Operator relating to Sawfish Plan - comments from DEPWS Flora and Fauna Division. MRM TWG Meeting Minutes (verbal approval).	
29.b		include monitoring of relevant parameters at appropriate frequencies to allow for implementation of applicable Trigger Action Response Plans (TARPs) included in the Adaptive Management Plan (AMP);	1	1	4	Full Compliance	Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to MRM Aquatic Ecology Management Plan - Condition 36 & 37 - submission. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. Correspondence between NTEPA and Operator relating to Sawfish Plan - comments from DEPWS Flora and Fauna Division. MRM TWG Meeting Minutes (verbal approval).	
29.c		be implemented by the Operator, once approved by the department.	1	1	3	Part Compliance (High)	Plan has not been approved by DITT.	Pending Commonwealth review and approval before DITT approval. OFI: Refer to Condition 16.e.
30	30	At all times, the Operator must conduct works consistent with the Northern Territory Aboriginal Sacred Sites Act 1989 and valid AAPA certificate. All conditions of the AAPA certificate must be complied with (including but not limited to NOEF height restrictions), and evidence produced to demonstrate compliance, when requested by the Minister.	1	1	N/A	Not Applicable		The Minister did not request any evidence in the audit period.
31	31	The Operator must not disturb or encroach within 5m of archaeological site MRM4, until a design of the NOEF is agreed in writing by the Department. Consultation between the Operator and Minister for Arts, Culture and Heritage must be undertaken prior to seeking endorsement of the design.	1	1	4	Full Compliance	DITT site visit 7Sep2022 and 22Feb2023 observed that MRM4 is fenced off.	There was no design submitted in the audit period that looks to encroa on MRM4. DITT site visit 7Sep2022 and 22Feb2023 observed that MRN is fenced off.
32	32	Within six months of date of authorisation of the Overburden Management Project, the Operator must provide a report to the Minister, and AAPA or the Minister for Arts, Culture and Heritage (where relevant) that demonstrates the consultation process undertaken or provide a plan to the Minister that details consultation activities and timeliness to identify and engage with appropriate custodians and traditional owners with an interest in land that would be or maybe affected by the Overburden Management Project.	1	1	N/A	Not Applicable		Condition is no longer relevant as it was due and completed before the audit period. This condition is no longer relevant and marked as completed in the Authorisation dated 17May2023.

uthorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	to	Score	Compliance Level	Evidence 2023	Comments 2023
33	33	Within 12 months of date of authorisation of the Overburden Management Project, the Operator must develop or revise and submit to the Department for review an existing air quality plan that monitors sulfur dioxide emissions at an appropriate location between the NOEF and sensitive receptors determined in consultation with NT EPA.	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 33, 34 and 35 regarding the AQMP.	This condition is no longer relevant and marked as completed in the Authorisation dated 17May2023.
34.a	34.a	objectives, locations, frequency of monitoring, trigger values and reporting commitments to manage and protect any potential air quality risk to human health outside of the mineral lease;	1	1	4	Full Compliance	Air Quality Management Plan dated 01Oct2021. DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 33, 34 and 35 regarding the AQMP. The AQMP includes objectives, locations, frequency of monitoring and reporting commitments. The AMP (rather than the AQMP) does include a TARP (hence trigger values) for sulphur dioxide but not for depositional dust monitoring or the high volume air sampling. DITT advised that this condition is "related to PAF combustion and SO2 release only" so only the sulphur dioxide trigger values are required.	This condition is no longer relevant and marked as completed in the Authorisation dated 17May2023.
34.b	34.b	evidence of consultation with the NT EPA to be provided at the time of the plan submission;	1	1	4	Full Compliance	Correspondence between Operator and DITT relating to Updated AMP & AQMP (November 2021). Correspondence between NT EPA and Operator relating to Proposed sulphur dioxide monitoring location (Recommendation 19 of Assessment Report 86) (before the audit period). Correspondence between Operator and DITT relating to Adaptive Management Plan & Air Quality Management Plan Submission. DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 33, 34 and 35 regarding the AQMP.	This condition is no longer relevant and marked as completed in the Authorisation dated 17May2023.
34.c	34.c	once approved by the Department, be implemented by the Operator.	1	1	4	Full Compliance	Correspondence between Operator and DITT subject MRM Updated AMP & AQMP (November 2021). Correspondence between NT EPA and Operator relating to Proposed sulphur dioxide monitoring location (Recommendation 19 of Assessment Report 86) (before the audit period). Correspondence between Operator and DITT relating to Adaptive Management Plan & Air Quality Management Plan Submission. DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 33, 34 and 35 regarding the AQMP.	
35.a	35.a	made available on the Operator's website. Initial monitoring results to be reported within 6 months of the plan being accepted by the Department or an alternative timeframe as agreed in writing with the Department;		1	4	Full Compliance	Sighted real time data and monthly reports on Operator's website 21Sep21 (before audit period) and Jun 2023 (after audit period).	DITT did not agree to any alternate timeframe.
35.b	35.b	incorporated where relevant in the AMP.	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 33, 34 and 35 regarding the AQMP.	
36		Within 24 months of date of authorisation of the Overburden Management Project, the Operator must submit a monitoring and management plan to the Department for review that manages risks of metal toxicity from human consumption of aquatic fauna obtained from the McArthur River. The plan must:	1	1	4	Full Compliance	Acknowledged 14Nov2022. Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan. Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan - Condition 36 & 37 - submission. Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic Ecology Management Plan - Accepted. Correspondence between NTEPA and Operator relating to Sawfish Plan - comments from DEPWS Flora and Fauna Division. MRM TWG Meeting Minutes.	Due 13Nov2022. DITT outlines that Conditions 29, 36, 37 are related.
36.a	36.a	determine if aquatic fauna obtained from any reach of the McArthur River, that may be impacted by the mine's operations, is safe to eat;	1	1	4	Full Compliance		This condition is marked as completed in the Authorisation dated 17May2023.
36.b	36.b	include demonstrated evidence of consultation with NT EPA;	1	1	4	Full Compliance	Correspondence between NTEPA and Operator relating to Sawfish Plan - comments from DEPWS Flora and Fauna Division.	This condition is marked as completed in the Authorisation dated 17May2023.
36.c	36.c	detail public reporting of the monitoring results, including at appropriate locations in the Borroloola region;	1	1	4	Full Compliance	AEMP dated Nov2022. AEMP Section 9 states: 'The results of the aquatic ecology monitoring programs described in Section 4 are reported annually to the DITT through the MRM Environmental Monitoring Report (EMR), required under the Mining Management Act 2001. The EMR is made publicly available on the NT EPA website.'	This condition is marked as completed in the Authorisation dated 17May2023.

	18 June 2021	Constitution of the consti	Condition			Compliance		
	Authorisation Condition No.	Condition/Requirement	included 2023 audit	to DITT	Score	Level	Evidence 2023	Comments 2023
		include provisions for implementation and maintenance of signage at					AEMP Section 6.2 states 'Permanent and weatherproof warning signage has been erected at access points to the	
		waterways at the MRM site in accordance with the requirements of					MRM mineral leases, in accordance with Condition 62 of VOA 0059. The wording of the signage states "No	
36.d	36.d	Condition 62 until the risk of contamination from consumption of this	1	1	4	Full Compliance	Unauthorised Access –Trespassers may be prosecuted". Additionally, points of access onto the MRM mineral	
		aquatic fauna is demonstrated to be acceptable by the Department;					leases are fenced to prevent access to unauthorised persons. Warning signage is inspected annually by the Environment Department to ensure visibility and condition. Signs are replaced when they become damaged or no	
							longer legible. '	
		once approved by the Department, be implemented by the Operator.					MRM TWG Meeting Minutes.	DITT satisfied with the plan but pending Commonwealth approval bef
36.e	36.e		1	1	3	Part Compliance		DITT approval.
55.0	33.0		_			(High)	DITT approved verbally at the TWG (not minuted) pending official approved.	OFL Defeate Condition 4C a
		Within 24 months of date of authorisation of the Overburden		1			Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan.	OFI: Refer to Condition 16.e. Due 13Nov2022.
		Management Project, the Operator must submit a plan to the		*			Correspondence between Operator and DITT relating to Aquatic Ecology Management Plan - Condition 36 & 37 -	
		Department for review that outlines a monitoring program for					submission.	DITT satisfied with the plan but pending Commonwealth approval before
		management of Largetooth Sawfish. The plan must:					Correspondence between DITT and Operator relating to NT EPA review of Water Management Plan and Aquatic	DITT approval.
37	37		1		4	Full Compliance		
							Correspondence between NTEPA and Operator relating to Sawfish Plan - comments from DEPWS Flora and Fauna Division.	
							MRM TWG Meeting Minutes.	
		include a sampling strategy for Largetooth Sawfish that is non-lethal;					Correspondence between NTEPA and Operator relating to Sawfish Plan - comments from DEPWS Flora and Fauna	This condition is marked as completed in the Authorisation dated
37.a	37.a		1	1	4	Full Compliance	Division.	17May2023.
37.u	37.u		-	-		Tan compliance	MRM TWG Meeting Minutes	
		include details of parameters and criteria, from which the results					AEMP Nov2022.	This condition is marked as completed in the Authorisation dated
		could be used to define specific (measurable and time-bound)					AEMP states that "For the purpose of defining trigger levels to identify potential impacts on the P. pristis	17May2023.
		performance indicators to abate a significant decline in Largetooth					population resulting from MRM operations, the use of static criteria (e.g. percentage change in abundance) is not	
37.b	37.b	Sawfish movement;	1	1	4	Full Compliance	considered appropriate in this instance. This is due to the mobile nature and naturally low abundance of this	
							species (generally one individual per site), whereby they can remain undetected or be absent at a number of sites	
							where they have been previously reported, resulting in significant variation between years."	
		include trigger levels for investigation and implementation of					AEMP dated Nov2022.	This condition is marked as completed in the Authorisation dated
		management measures;					AEMP Section 4 states "trigger levels are assigned to each of the identified performance indicators consistent with	·
							MRM's AMP. The Level 2 trigger value specified indicates that performance is still within the range of relevant	
37.c	37.c		1	1	4	Full Compliance	guidelines, predictions and/or conditioned limitations, however, investigation is necessary as to whether pre-	
							emptive mitigation and/or management measures are required."	
		once approved by the Department, be implemented by the Operator.					MRM TWG Meeting Minutes.	DITT advised they are satisfied with the plan but it is pending
37.d	37.d	pp	4	1	3	Part Compliance		Commonwealth approval before DITT approval.
57.u	57.U		1	1	3	(High)	DITT approved verbally at the TWG (not minuted) pending official approved.	
		submit this to the Department for review						OFI: Refer to Condition 16.e.
		submit this to the Department for review.						No panels and groups have been established.
								OBS: Delays in establishing the panels and therefore the Operator's
38.b	38.b		1	1	N/A	Not Applicable		ability to develop the environmental objectives for a Care and
								Maintenance Plan will delay implementation of approved measures to
								manage environmental risks.
		Within five years of date of authorisation of the Overburden						Future item. Within five years from 13 Nov2020.
39		Management Project, the environmental objectives arising from Condition 37 must be used to develop a Care and Maintenance Plan in	1	1	N/A	Not Applicable		Note June 2021 Authorisation refers to condition 38 and this condition
		consultation with the Department.	•	•	11/1	Постррисцые		also referring to condition 38 in the Authorisation dated 17May2023.
		The Operator must facilitate an independent third-party assessment of						Not triggered until 3 years after the 13Nov2020.
		the security for rehabilitation of disturbances resulting from authorised						NOT THERETED UITH 3 years after the 15NOVZUZU.
		activities in the approved MMP that is consistent with requirements						
40		under Conditions 10, 11 and 12, to the satisfaction of the Department,	1	1	N/A	Not Applicable		
		and every 3 years thereafter if the security has been re-calculated or						
		adjusted. commission a qualified person to review the security amount whose						Condition not triggered as it is specific to condition 40, for which the n

	18 June 2021 Authorisation	Condition/Requirement	Condition included	Relevant to	Score	Compliance	Evidence 2023	Comments 2023
	Condition No.	Condition, Negariement	2023 audit		30016	Level	Evidence 2023	Comments 2023
		ensure that the security is reviewed and delivered to the Department within six months of acceptance of the qualified person.						Condition not triggered as it is specific to condition 40, for which the ne requirement is three years from 13Nov2020.
41.b	41.b		1	1	N/A	Not Applicable		OBS: DITT should consider changing the wording of this condition if reapproval of the qualified person to undertake the independent third-party assessment of the security is not required.
42	42	For every approved MMP and MMP amendment, the Operator must provide a revised copy of the approved document that removes commercially sensitive information, includes an overview and environmental section, and is suitable for publication on the Department's website, or provide written approval to make the complete documents publicly accessible.	1	1	N/A	Not Applicable		2020 MMP is on the internet and no MMP amendments were received the audit period. MMP amendment was received after the audit period and is currently being assessed and will be relevant to the next audit period.
43		The Operator must assist, as required, the Department to establish and operate a Community Reference Group (CRG).	1	1	4	Full Compliance	Correspondence between Minister and Richard Galton relating to Independent Chair Letter Galton. Correspondence between DITT and Operator relating to CRG Notice of Inaugural Meeting. Correspondence between Minister to Mark Furlotte subject: CRG undated.	DITT appointed an independent chairperson for the CRG Twelve expressions were received for membership and they have been assessed by the independent chairperson. A letter was sent by the independent chairperson to the Minister recommending the appointment of all 12 members (letter from chairperson dated 10May2023). Nominated date for inaugural meeting is 27Jul2023. This a nonstatutory board. Independent chair will run the panel consistent with the ToR.
44	44	Within 18 months of date of authorisation of the Overburden Management Project, the Operator must undertake a synthesis of all environmental monitoring programs (Condition 26) that assess impacts of mining activities on the environmental values and beneficial uses of the McArthur River, in accordance with NT EPA's overarching environmental outcome. The revised monitoring programs must:	1	1	4	Full Compliance	Correspondence between Operator and DITT relating to Variation of Authorisation 0059 - Condition 44. EMR 2020-2021 dated 31Aug2021. Internal DITT memo subject: MRM - Auth 0059 OMP - Amended AMP. Correspondence between DITT and Operator relating to Updated AMP & AQMP (November 2021). Correspondence between Operator and DITT relating to Updated AMP & AQMP Acknowledgment (November 2021) Correspondence between Operator and DITT relating to Updated Environmental Management Plans. The synthesis was part of condition 26 and DITT approved condition 26 by letter.	This condition is marked as completed in the Authorisation dated 17May2023.
44.c	44.c	be incorporated in the AMP.	1	1	4	Full Compliance	Correspondence between Operator and DITT relating to Variation of Authorisation 0059 - Condition 44. EMR 2020-2021 dated 31Aug2021. MRM Amended AMP (Nov 2021) & AQMP - Signed Memo. Correspondence between DITT and Operator relating to Updated AMP & AQMP (November 2021). Correspondence between Operator and DITT relating to Updated AMP & AQMP Acknowledgment (November 2021). Correspondence between Operator and DITT relating to Updated Environmental Management Plans.	This condition is marked as completed in the Authorisation dated 17May2023.
45		Within 18 months of date of authorisation of the Overburden Management Project, the Operator must submit an AMP to the Department:	1	1	4	Full Compliance	Correspondence between Operator and DITT relating to Variation of Authorisation 0059 - Condition 44. EMR 2020-2021 dated 31Aug2021. MRM Amended AMP (Nov 2021) & AQMP - Signed. Correspondence between DITT and Operator relating to Updated AMP & AQMP (November 2021). Correspondence between Operator and DITT relating to Updated AMP & AQMP Acknowledgment (November 2021). Correspondence between Operator and DITT relating to Updated Environmental Management Plans.	DITT advised that the Approval letter was sent.
45.a.i	45.a.i	clear, measurable environmental objectives for all significant environmental risks and potential impacts;	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	This condition is marked as completed in the Authorisation dated 17May2023.
45.a.ii	45.a.ii	measureable performance indicators to show that objectives are on target to be met;	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	This condition is marked as completed in the Authorisation dated 17May2023.
45.a.iii	45.a.iii	pre-determined triggers to warn of potential for performance indicators to be exceeded, as informed by monitoring;	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	This condition is marked as completed in the Authorisation dated 17May2023.
45.a.iv	45.a.iv	realistic and achievable contingency interventions to maintain performance indicators if triggers are consistently exceeded;	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	This condition is marked as completed in the Authorisation dated 17May2023.

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		kbook - DITT Audit period 01 May 2022 to 30 April 2023						
Authorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	Relevant to DITT	Score	Compliance Level	Evidence 2023	Comments 2023
45.a.v	45.a.v	clearly defined management measures/actions that are capable of being implemented in a timely way to meet performance indicators and environmental objectives;	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	This condition is marked as completed in the Authorisation dated 17May2023.
45.a.vi	45.a.vi	monitoring in accordance with relevant Recommendations in NT EPA Assessment Report 86 to determine whether management measures are effective and to inform the need for adjustments to management measures or need for alternatives;	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	This condition is marked as completed in the Authorisation dated 17May2023.
45.a.vii	45.a.vii	a continual feedback system to inform appropriate actions to be initiated when triggered and environmental objectives are always being met;	1	1	4		DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	This condition is marked as completed in the Authorisation dated 17May2023.
45.a.viii	45.a.viii	continual development of new management actions as required based on knowledge gained from experience at the site and elsewhere across industry.	1	1	4		DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	This condition is marked as completed in the Authorisation dated 17May2023.
45.b	45.b	The AMP must be reviewed by the Independent Monitor or an appropriately qualified, independent third party, and updated with inputs from the CRG (once established under Condition 43);	1	1	4	Full Compliance	Independent Monitor review of the AMP draft (23Dec2022) and final report (28Jul2023) (after the audit period). Pending CRG inaugural meeting 27Jul2023.	OBS: The condition requires the AMP to be updated with inputs from CRG review, but does not clearly require the AMP to be updated based on inputs from the Independent Monitor review, consider rewording.
45.c	45.c	all review findings and CRG input requirements are to be provided to the Department for approval.	1	1	N/A	Not Applicable		No review findings were finalised or CRG inputs occurred in the audit period. OBS: Refer to Condition 45.b.
46.a	46.a	clearly set out the required management objectives and performance indicators;	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	
46.b	46.b	provide clarity on the triggers for changes to management actions, and responsibility and evidentiary basis for decision-making;	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	
46.c	46.c	establish the timeframe for initiation of certain actions if triggers are exceeded, including decisions to discontinue an activity and clarify responsibility and evidentiary basis for decision-making;	1	1	4		DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	
46.d	46.d	establish a process for adjusting triggers that includes the regulator;	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	
46.e	46.e	establish transparent monitoring, reporting and review requirements;	1	1	4	Full (Omnliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	
46.f	46.f	establish processes to achieve transparency and stakeholder engagement in AMP design and implementation that includes NT EPA, DAWE and CRG;	1	1	4		DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	
46.g	46.g	set out the mechanism for periodic review by Independent Monitor, which must not exceed a frequency of every three years;	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	
46.h	46.h	be provided to the Department for re-approval in the event that any material changes are made to the AMP.	1	1	N/A	Not Applicable	Version E of AMP submitted 27May2022.	The Operator submitted AMP to DEPWS, not DITT. DTIT advised that the difference between version D and version E is in relation to the Water Management Plan (to address requirements of the WDL) and one minor change to the AMP. The Operator did not submit a singular document entitled "AMP_version E" to DITT, rather they advised DITT of the changes. Similarly the Water Management Plan changes were not material to DITT.
47 ndependent Tailin	47	The Operator must provide written notice to the Minister and to the NT EPA (under clause 14A of the Environmental Assessment Administrative Procedures 1984) where trends indicate performance indicators and environmental objectives will not, or are unlikely to be, met by implementing the AMP.	1	1	N/A	Not Applicable		DITT advised that there was no written notice in the audit period to the Minister other than the EMR, where trends indicate performance indicators and environmental objectives will not, or are unlikely to be, met.

5 May 2022	18 June 2021		Condition	Relevant				
uthorisation	Authorisation Condition No.	Condition/Requirement	included 2023 audit	to	Score	Compliance Level	Evidence 2023	Comments 2023
		provide details of the members of the ITRB panel and meeting frequency to the Department for endorsement by the Department;						DITT is not aware of any changes to the ITRB panel or if there has been any requirement for the ITRB to meet. DITT received no corresponden from the Operator re ITRB in the audit period.
50.c	50.c		1	1	3	Part Compliance (High)		OFI:DITT to liaise with the Operator with a standing agenda item on I in the TWG regarding ITRB matters for example: • ITRB review of TSF construction documentation not occurring in tin manner • OMS Manual not being updated and progressed from draft version the Cell 1 stage 5 and Cell 2 Stage 7 raises or reviewed by ITRB • Design changes to the Cell 2 Stage 7 raise buttressing not being reviewed or endorsed by the ITRB.
50.d	50.d	together with the ICE, provide a written response to the satisfaction of the Department, in the event that future review of the designs by independent experts require additional matters to be addressed;	1	1	N/A	Not Applicable		DITT received no correspondence from the Operator re ITRB or independent reviews in the audit period.
ste Rock Manag	ement							
51.i	51 .i	in the event that future review of the designs or as-built structure by independent experts require additional matters to be addressed, the Operator together with the ICE must provide a written response to the satisfaction of the Department;	1	1	N/A	Not Applicable		DITT is not aware of any reviews of the designs or as-built structure be independent experts and has not received any correspondence from Operator relevant to this condition.
51.j	51.j	at mine closure, non-benign waste rock is encapsulated and fully contained within an engineered cover system consistent with the Overburden Management Project, or an alternative cover system endorsed by the relevant independent technical panels to the satisfaction of the Department.	1	1	N/A	Not Applicable		Not triggered until mine closure.
naining Waste R	ock Management F						Carragan and once hat upon DITT and Onevetor relating to Tompovery Consentrate Starger, INTERNAL delegate	
55.d	55.d	any other location approved by Department in writing.	1	1	4	Full Compliance	Correspondence between DITT and Operator relating to Temporary Concentrate Storage - INTERNAL delegate approval. Correspondence between DITT and Operator relating to Temporary Concentrate Storage - APPROVED. MRM TWG Meeting Minutes show this was approved.	
er Managemen	t and Storage							
59	59	Until the AMP (including Environmental Management Plans and sub- plans) is approved by the Department in writing, the Operator must prepare, review and include the following for each MMP and where appropriate each MMP amendment, a Water Management Plan which includes:	1	1	N/A	Not Applicable		AMP was approved therefore this condition is N/A. This condition is marked as completed in the Authorisation dated 17May2023.
ter Transfer and		includes.						
68.e	68.e	by 30 June 2020, characterise total loads of mine-derived contaminants from all source inputs for the 2017-2018 period consistent with Condition 16.b), unless otherwise agreed in writing by the Department.	1	1	N/A	Not Applicable		Was complied with prior to the audit period (Operator provided a loa report and acknowledgement of receipt was emailed. Not relevant in audit period. This condition is marked as completed in the Authorisation dated
								17May2023.
69.b	69.b	remediation in the event of unacceptable erosion occurring at the Carpentaria Highway culvert system to the satisfaction of the Department of Infrastructure, Planning and Logistics and the Department;	1	1	N/A	Not Applicable		There were no releases in the audit period and DITT is not aware of a unacceptable erosion.
69.h	69.h	Measure total loads of analytes (including lead and zinc) from all controlled discharge activities entering McArthur River at location SW06 or an alternate location as agreed by the Department;	1	1	N/A	Not Applicable	Correspondence between Operator and DITT relating to DITT Annual Data Submission. Correspondence between Operator and DITT relating to DITT Data Q1 2022.	There were no releases in the audit period and no alternate location monitoring.
71		At the conclusion of the trials in Condition 70, the Operator must apply in writing to the Department for approval of full-scale implementation.	1	1	N/A	Not Applicable	DITT confirmed that trials are in progress and there are currently no requests received.	
neter Run-Off I	Dams - SPROD, SEPF	ROD, WPROD and EPROD						
		field water quality parameters, flow meter volumes and laboratory						Construction was completed more than a year before the audit period

Authorisation	Compliance Wo	rkbook - DITT Audit period 01 May 2022 to 30 April 202	3					
Authorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	Relevant to DITT	Score	Compliance Level	Evidence 2023	Comments 2023
75.k	75.k	Construction reports including QA and QC data endorsed by the ICE must be provided to the Department prior to commencement of operation within 30 days of construction being completed.	1	1	N/A	Not Applicable	Correspondence between DITT and Operator relating to EPROD progress construction report - Received. EPROD Construction Report dated Nov2022.	Not triggered in the audit period as there was no dewatering for EPROD. DITT amended the condition so that provision of construction reports is required regardless of whether dewatering has occurred or not and to within 60 days of construction being completed in the Authorisation dated 17May2023.
Tailings storage fac	ility 76.b	any construction of tailings lift, as approved in Condition 79, be reviewed and endorsed by independent oversight requirements in Condition 48 and 50 or an alternative independent qualified and experienced third party approved by the Department in writing;	1	1	N/A	Not Applicable		There were no lifts received or approved by DITT in the audit period and this is consistent with advice from the Operator.
76.e	76.e	in the event that future review of the designs or as-built structure by independent experts require additional matters to be addressed, the Operator together with the ICE must provide a written response that justifies the existing design or proposes an alternate design to the satisfaction of the Department.	1	1	N/A	Not Applicable		DITT not aware of any review of the designs or as-built structure by independent experts requiring additional matters to be addressed.
TSF Management		The Operator must provide quarterly to the Minister a written status report on the seepage and management of seepage from the TSF, including the following:	1	1	3	Part Compliance (High)	Correspondence between DITT and Operator relating to Auth 0059 - Condition 80 - TSF quarterly reports (June 2021 to Sept 2022) - Acceptance letter. Correspondence between DITT and Operator relating to Acceptance Letter - TSF Quarterly Reports _June 2021 to Sept 2022. Correspondence between Operator and DITT relating to TSF Quarterly Report December 2021 - March 2022. Correspondence between DITT and Operator relating to TSF Quarterly Report December 2021 - March 2022 - Acknowledgement of submission. Correspondence between Operator and DITT relating to TSF Quarterly Report April 2022 - June 2022. Correspondence between DITT and Operator relating to TSF Quarterly Report April 2022 - June 2022. Acknowledgement. Correspondence between Operator and DITT relating to TSF Quarterly Report July 2022 - September 2022. Correspondence between DITT and Operator relating to TSF Quarterly Report July 2022 - September 2022 - Acknowledgement. Correspondence between DITT and Operator relating to TSF Quarterly Report July 2022 - September 2022 - RFI. Correspondence between Operator and DITT relating to TSF Quarterly Report July 2022 - September 2022 - RFI. Correspondence between DITT and Operator relating to TSF Quarterly Report July 2022 - September 2022 - RFI. Correspondence between DITT and Operator relating to TSF Quarterly Report July 2022 - September 2022 - Acknowledgement (RFI response/Attachment resubmission acknowledgement). Correspondence between DITT and Operator relating to TSF Quarterly Report July 2022 - September 2022 - Acknowledgement (RFI response/Attachment resubmission acknowledgement). Acceptance letter from the delegate sent relating to TSF Quarterly Report July 2022 - September 2022 - Acknowledgement (RFI response/Attachment resubmission acknowledgement). Acceptance letter from the delegate sent relating to TSF Quarterly Report July 2022 - September 2023 - Inlied Parterly Reports Acceptance letter from the delegate sent relating to TSF Quarterly Report Suprementation of the Parterly Report Suprementation	DITT advised during the AEPAR audit in 2022 that they had requested the annual independent audit report (Annual Dam Safety Assessment) be provided by the Operator progressively. DITT has not received one relevant to the last two audit periods. There was no evidence provided to indicate DITT has followed up on this request with the Operator. The WMP states, "For the 2021 calendar year, the Mill and TSF Dams Inspection Report was finalised on 22 February 2022 (GHD, 2022a). The Mine Dams Inspection Report was finalised on 29 March 2022 (GHD, 2022b)." OFI: DITT to request that the Operator submit TSF quarterly reports in a more timely fashion. OFI: DITT to formally review and assess TSF Quarterly Reports in a more timely fashion OFI: DITT to formally review and assess TSF Quarterly Reports received after November 2022 and advise the Operator in writing when reports are accepted.

uthorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	to	Score	Compliance Level	Evidence 2023	Comments 2023
80 .a	80.a	water levels in the TSF;	1	1	4	Full Compliance	MRM TSF Quarterly Report December 2021 - March 2022. MRM TSF Quarterly Report April 2022 to June 2022. MRM TSF Quarterly Report July 2022 - September 2022 (superseded attachment). MRM TSF Quarterly Report July 2022 - September 2022 (TSF Recommendation, Instruction and Action Register updated). MRM Tailings Storage and Facility Quarterly Report April 2022 - June 2022 displays compliance for water levels against MOL for Cell 1 and Cell 2 in Figure 2-1 and Figure 2-2 respectively. MRM Tailings Storage Facility Quarterly Report July 2022 - September 2022 displays compliance for water levels for Cell 1 and Cell 2 in Figure 2-1 and Figure 2-2 respectively. There is also a graph the present WMD water level and seepage collection volumes in Figure 2-4.	
80.b	80.b	all monitoring data associated with the seepage (including geotechnical and environmental monitoring);	1	1	4	Full Compliance	MRM TSF Quarterly Report December 2021 - March 2022. MRM TSF Quarterly Report April 2022 to June 2022. MRM TSF Quarterly Report July 2022 - September 2022 (superseded attachment). MRM TSF Quarterly Report July 2022 - September 2022 (TSF Recommendation, Instruction and Action Register updated). MRM Tailings Storage and Facility Quarterly Report April 2022 - June 2022 Table 2-1 provides data including sum of seepage collected Section 2.3.2 details information pertaining to seepage management for Cell 2 but does not provide specifics relating to Cell 1. No seepage was observed or pumped from the west corner during this reporting period. Section 2.5.3 details the historic seepage activities for Cell 2, and provides generalist results of filters metals testing. It also outlines that Cell 2 Spillway Recovery Seepage bore could not be located during the reporting period, and how it has therefore not been sampled since September 2021. MRM Tailings Storage Facility Quarterly Report July 2022 – September 2022	
80.c	80.c	flow rate of each seep;	1	1	4	Full Compliance	MRM TSF Quarterly Report December 2021 - March 2022. MRM TSF Quarterly Report April 2022 to June 2022. MRM TSF Quarterly Report July 2022 - September 2022 (superseded attachment). MRM TSF Quarterly Report July 2022 - September 2022 dated 28Feb2023 (TSF Recommendation, Instruction and Action Register updated). MRM TSF Quarterly Report - Q2 2022 April 2022 to June 2022 - Section 2.4.2.1 outlines that the Water Management Dam was dewatered during the reporting period for construction works. This section was reported to be 83kL/day. Section 2.5.6 states that Surprise Creek ceased to flow at all monitoring sites adjacent to the TSF in October 2017 and resumed in January in 2022.	
80.d	80.d	all actions undertaken during the quarter associated with the seepage and management of Tailings;	1	1	4	Full Compliance	MRM TSF Quarterly Report December 2021 - March 2022. MRM TSF Quarterly Report April 2022 to June 2022. MRM TSF Quarterly Report July 2022 - September 2022 (superseded attachment). MRM TSF Quarterly Report July 2022 - September 2022 (TSF Recommendation, Instruction and Action Register updated). Attachment B - TSF Recommendation Instruction and Action Register of the MRM TSF Quarterly Report - July 2022 - September 2022 resubmitted in February 2022 includes the actions undertaken in the quarter.	OBS: DITT should consider if the TSF Recommendation, Instruction and Action Register should identify actions that are overdue (rather than calling them incomplete) and if ongoing actions beyond their due date are acceptable.
80.e	80.e	all actions planned for the next quarter associated with seepage and management of Tailings.	1	1	4	Full Compliance	MRM TSF Quarterly Report December 2021 - March 2022. MRM TSF Quarterly Report April 2022 to June 2022. MRM TSF Quarterly Report July 2022 - September 2022 (superseded attachment). MRM TSF Quarterly Report July 2022 - September 2022 (TSF Recommendation, Instruction and Action Register updated). MRM TSF Quarterly Report - Q3 2022 July 2022 to September 2022 - Table 2-3 describes the ongoing operational actions by recommended frequency.	
ochemical, Geot		geological Assessments and Investigation Drilling Characterisation data from the drilling must be kept and available to the					Appendix S of the EMR Hydrogeological Drilling and field Campaign dated 4Jul2022.	No request was made by the Minister for characterisation data.
83		Minister on request and reported in the Operator's EMR.	1	1	4	Full Compliance	Hydrogeological characterisation data was included.	OBS: EMR 2021-2022 does not appear to include all characterisation da from exploration drilling since it includes data related to hydrogeological drilling characterisation only.

uthorisation	18 June 2021 Authorisation Condition No.		Condition included 2023 audit	Relevant to DITT	Score	Compliance Level	Evidence 2023	Comments 2023
84	2/1	All documentation relating to the investigations undertaken is to be made available to the Department on request.	1	1	N/A	Not Applicable		DITT did not make any requests for information.
85	85	On completion of the investigation the disturbances are to be rehabilitated in accordance with the approved MMP and the basis for the proposed adjustment of total security adjustments required under Condition 11, are provided in the annual Unplanned Closure Plan report to the satisfaction of the Department.	1	1	4	Full Compliance	Correspondence between DITT and Operator relating to MRM Variation of Authorisation 0059 approval (sent 17-05-2023). Correspondence between DITT and Operator relating to Approval Letter - Auth 0059 V13. Memorandum - Vary Authorisation 0059. Variation of Authorisation 0059 dated 17May2023. Rehabilitation Security Audit Report 2023 dated 15Dec2022. The evidence provided by DITT shows that they assessed the Unplanned Closure Plan report and associated security adjustments, including related to rehabilitation.	
Bloration 86.d	86.d	a rehabilitation report including details regarding the status of disturbance rehabilitated drill holes and the basis for the proposed adjustment of total security in accordance with Conditions 10, 11 and 12, to the satisfaction of the Department.	1	1	4	Full Compliance	Correspondence between DITT and Operator relating to Variation of Authorisation 0059 approval (sent 17-05-2023). Correspondence between DITT and Operator relating to Approval Letter - Auth 0059 V13. Memorandum - Vary Authorisation 0059 dated 17May2023. Variation of Authorisation 0059. Rehabilitation Security Audit Report 2023 dated 15Dec2022. The evidence provided by DITT shows that they assessed the Rehabilitation Security Audit Report and associated security adjustments, including related to rehabilitation.	
88	e Management 88	The Operator must ensure the non-mineral waste facility, landfill or equivalent previously in use is rehabilitated following approval by the Department of a rehabilitation plan.	1	1	N/A	Not Applicable		The non-mineral waste facility/landfill remains in use.
g Bong Loading 91.a	Facility 91.a	submission to the department of a Dredging and Dredge Spoil Management Plan;	1	1	4	Full Compliance	Correspondence between Operator and DITT relating to VOA 0059 - Dredging and Dredge Spoil Management Plan Submission. Correspondence between DITT and Operator relating to VOA 0059 - Dredging and Dredge Spoil Management Plan Acknowledgment. DITT acknowledged receipt of the plan.	
91.b	91.b	approval of the Plan by the Department prior to commencement of dredging.	1	1	4	Full Compliance	Correspondence between DITT and Operator relating to the Approval Letter - Auth 0059 V13 (after audit period). Memorandum - Vary Authorisation 0059 (after audit period). Correspondence between Operator and DITT relating to VOA 0059 - Dredging and Dredge Spoil Management Plan Submission (received 21022023). Correspondence between Operator and DITT relating to Requirement to apply for permit under s11 Fisheries Act - acknowledgement (Received 03032023. DITT approved the plan after the audit period but within a reasonable timeframe.	
ptive Manager	nent	Within 12 months of the date of authorisation of the Overburden Management Project, the Operator must submit a revised AMP as required under Conditions 45.					The Operator submitted a revised AMP 13 Nov2021 (before the audit period). Correspondence between Operator and DITT relating to Variation of Authorisation 0059 - Condition 44. EMR 2020-2021 dated 31Aug2021. MRM Amended AMP (Nov 2021) & AQMP Signed Memo August 2022. Correspondence between DITT and Operator relating to Updated AMP & AQMP (November 2021).	The Operator submitted two iterations of the AMP as stated below which complies with the 12-month timeframe under Condition 93 • Amended AMP (version: 31 March 2021, AMP-C) and supporting information - submitted 23 June 2021 • Amended AMP (version: 1 October 2021, AMP-D) and supporting the submitted 13 Newspaper 2021
93	93		1	1	4	Full Compliance	Correspondence between Operator and DITT relating to Updated AMP & AQMP Acknowledgment (November 2021). Correspondence between Operator and DITT relating to Updated Environmental Management Plans. DITT advises that the Approval letter was sent in Aug2022. DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	information - submitted 13 November 2021. This condition is marked as completed in the Authorisation dated 17May2023. The Operator submitted AMP version E to DEPWS, not DITT. DTIT that the difference between version D and version E is in relation Water Management Plan (to address requirements of the WDL) a minor change to the AMP. The Operator did not submit a singula document entitled "AMP_version E" to DITT, rather they advised the changes.

Authorisation	Compliance Wo	rkbook - DITT Audit period 01 May 2022 to 30 April 202	3					
Authorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	to	Score	Compliance Level	Evidence 2023	Comments 2023
94.a	94.a	address the comments from the Independent Monitor or independent third party review of the draft AMP and ensuring compliance with Condition 45;	1	1	4	Full Compliance	MRM submitted the Amended Adaptive Management Plan (November 2021) (before the audit period). DITT approval letter August 2022 stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	
94.b	94.b	be consistent with the AMP required under the Waste Management and Pollution Control Act 1998 and Environment Protection and Biodiversity Conservation Act 1999;	1	1	4	Full Compliance	The AMP is the same document that is submitted to DEPWS under the WDL although some appendices (e.g., Rehabilitation Plan) are not relevant to the WDL and therefore not submitted to DEPWS. The AMP is therefore consistent (although appendices submitted are not identical) and compliant with the requirements of this condition	In the Authorisation dated 17May2023 this condition is updated to refer to Water Act 1992 instead of the Waste Management and Pollution Control Act 1998.
94.c	94.c	be reviewed by a Department approved independent third-party at the discretion of the Minister;	1	1	4	Full Compliance	AMP version E dated May2022. A review of the AMP was undertaken by the Independent Monitor with a draft report 23Dec2022 and finalised on 28Jul2023 (outside the audit period).	
94.d	94.d	be approved by the Minister;	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	
94.e	94.e	once approved, be implemented in full.	1	1	4	Full Compliance	EMR 2022-2023 dated 31Aug2023. The EMR executive summary does provide an overview of implementation of the AMP in terms of evaluation against the TARPs for numerous performance indicators.	The AMP was approved August 2022. DITT advised that they assess implementation of the AMP from the EMR.
95	95	Any material changes to the AMP required by Condition 94 must be reapproved by the Minister.	1	1	4	Full Compliance	DITT approval letter stated that the plan was assessed as meeting the requirements of conditions 45, 46, 93, 94 and 95 regarding the AMP.	The AMP submitted as part of the OMP submission was approved. The updated AMP was approved. Version E of AMP submitted 27 May 2022 did not require approval because the changes are not material.
Mine Closure								
96	96	From the date of authorisation of the Overburden Management Project, the Operator must submit an updated Mine Closure Plan with each MMP that builds upon the closure concepts defined in the Overburden Management Project.	1	1	N/A	Not Applicable		No MMPs submitted in the audit period.
97.a	97.a	detail how key mine domains will be rehabilitated to achieve the Overburden Management Project closure objectives;	1	1	N/A	Not Applicable		No MMPs submitted in the audit period.
97.b	97.b	address outcomes of the reviews by independent technical and closure panels in accordance with Condition 21 with respect to mine closure;	1	1	N/A	Not Applicable		No MMPs submitted in the audit period.
97.c	97.c	incorporate relevant outcomes from rehabilitation trials defined in Condition 89.	1	1	N/A	Not Applicable		No MMPs submitted in the audit period.
98.b	98.b	submit to the Department the plan for approval by the Minister;	1	1	N/A	Not Applicable		Not triggered as not required until five years before planned closure of the mine.
98.c	98.c	following approval, the Mine Closure Plan must be implemented by the Operator in full.	1	1	N/A	Not Applicable		Not triggered as not required until five years before planned closure of the mine.
99		From the date of authorisation of the Overburden Management Project, the Operator must annually submit to the Department an Unplanned Mine Closure Plan on or before 31 August, starting 2021, to the Department, which is accompanied by a related security estimate.	1	1	4	Full Compliance	2023 UCP Submission dated 30Sep2022. Correspondence between DITT and Operator acknowledgement. Independent Audit of 2023 UCP dated 23Jan2023. Correspondence between Operator and DITT relating to 2023 Unplanned Closure Plan and Security Assessment (independent audit attached). Correspondence between DITT and Operator relating to 2023 Unplanned Closure Plan and Security Assessment (DITT Acknowledgement). Correspondence between DITT and Operator relating to 2023 Unplanned Closure Plan and Security Assessment - submission received. Correspondence between DITT and Operator relating to 2023 UCP and MMP amendments (DITT acknowledgement). Correspondence between Operator and DITT relating to 2023 UCP Assessment - RFI. Evidence provided demonstrated DITT review and liaison with Operator related to the Unplanned Mine Closure Plan and security estimate.	An amendment to the Unplanned Closure Plan was submitted (before the audit period) and was approved. Operator changed to requesting a three year approval and inclusion of Unplanned Closure to provide more surety around the approval timing to not disrupt operations. Assessment undertaken by Phronis Consulting. Another amendment to the Unplanned Closure Plan was submitted. Phronis Consulting prepared an independent assessment that was submitted to DITT. DITT are yet to provide an approval.

SCHEDULE C - Independent Monitoring Assessment Conditions

authorisation A	Authorisation					A MALAULIA LA MARA		
		Condition/Requirement	included	to	Score	Compliance	Evidence 2023	Comments 2023
	Condition No.		2023 audit	DITT		Level		
		The purpose of the McArthur River Mine – Independent Monitoring						Note for context
chedule C - 1	Schedule (* - 1	Assessment Conditions" is to establish and set out the operational	1	Other		_		
1		requirements for an independent monitoring assessment of the						
		environmental performance of the Mine. These Conditions may be cited as the "McArthur River Mine –						Note for context
chedule C - 2	Schedule (- 2	Independent Monitoring Assessment Conditions".	1	Other		-		Note for context
		The purpose of these Conditions is to establish and set out the						Duplicate of Schedule C, item 1.
chedule C - 3		operational requirements for an independent monitoring assessment of	1	Other		-		
		the environmental performance of the Mine. The Department will engage an Independent Monitor to undertake the					Notification of Independent Monitor services acceptance letter DITT to Advisian (before the audit period). Option	
Schedule C - 4		independent monitoring assessment.	1	1	4	Full Compliance	to extend the contract until 2025 was received and accepted by the Independent Monitor in July 2022.	
			_	_				
		The Operator and the Department acknowledge that this independent					The Independent Monitor was advised of this verbal understanding from DITT that this condition is acknowledged.	
Schedule C - 5		monitoring assessment is in addition to their respective obligations and	1	1	4	Full Compliance		
		statutory responsibilities in relation to the Mine.						No DITT aution included for control of a 1
hedule C - 6.a.i	Schedule C - 6.a.i	environmental assessments and monitoring activities undertaken by the Operator; and	1	Other		-		No DITT action. Included for context of subconditions.
+		environmental assessments and audits undertaken by the					Notification of environmental incident - S29-Concentrate Spill on Carpentaria Highway_Final.	
		Department; and					Correspondence between DITT and Operator relating to Incident No. 2524 - Acknowledgement of Submission of	
							s29 Notification Report - 0059.	
hedule C - 6.a.ii '	Schedule C - 6.a.ii		1	1	4	Full Compliance		
							Condition C6aii - Mining Officer Notes.	
		report to the Operator and the Department any urgent issues						Note: no urgent issues have been identified by the Independent Mo
hedule C - 6.b	Schedule C - 6.b	requiring investigation and reporting.	1	1	N/A	Not Applicable		to date.
chedule C -7	Schedule C -7	The Independent Monitor will not review:	1	Other		-		No DITT action. Included for completeness.
hedule C -7.a	Schedule C -7.a	Mine safety; or	1	Other		-		No DITT action. Included for completeness.
hedule C -7.b	Schedule C -7.b	social issues arising from the operation of the Mine in the McArthur River Region.	1	Other		-		No DITT action. Included for completeness.
		The Department will engage an Independent Monitor in accordance					Notification of Independent Monitor services acceptance letter from DITT to Advisian (before the audit period).	
chedule C - 8	Schedule C - 8	with its procurement processes.	1	1	4	Full Compliance	Option to extend the contract until 2025 was received and accepted by the Independent Monitor in July 2022.	
						·		
		The Independent Monitor may be (in order of preference):						Note: Independent Monitor appointed is option c.
		a. an environmental or mining agency in another jurisdiction in						
Schedule C - 9	Schedule C - 9	Australia; or	1	1	4	Full Compliance		
		b. a university having the necessary expertise; or c. an environmental consultant have the necessary expertise, relevant						
		experience and the necessary resources.						
1		Prior to advertising a tender seeking to engage an Independent Monitor,						Engagement of the Independent Monitor occurred before the audi
chedule C - 10		the Department must provide the Operator with a copy of the proposed	1	1	N/A	Not Applicable		period.
		tender documentation, including:						
hedule C - 10.a	Schedule C - 10.a	the Conditions of tendering; and	1	1	N/A	Not Applicable		Engagement of the Independent Monitor occurred before the audit period.
		the scope of services; and			1			Engagement of the Independent Monitor occurred before the audit
hedule C - 10.b	Schedule C - 10.b	the scope of services, and	1	1	N/A	Not Applicable		period.
-1-1-1-0-12	C-1	the assessment criteria; and	4			Ni-t A I' . I .		Engagement of the Independent Monitor occurred before the audit
chedule C - 10.c	Scheaule C - 10.c		1	1	N/A	Not Applicable		period.
chedule C - 10.d	Schedule C - 10 d	the Conditions of contract.	1	1	N/A	Not Applicable		Engagement of the Independent Monitor occurred before the audit
.544.6 € 10.4			*	<u> </u>	14/7	110t Applicable		period.
		The Operator may, within 14 days of receiving the proposed tender						Engagement of the Independent Monitor occurred before the audi
hedule C - 11		documentation, provide comment on the proposed documentation to the Department and the Department must consider any comments	1	1	N/A	Not Applicable		period.
		provided by the Operator on the proposed documentation prior to		_	.,,,	T. T. P. T. GOOTE		
		advertising the tender.						
		The Department must provide the Community with an opportunity to						Engagement of the Independent Monitor occurred before the audi
		provide submissions on the engagement of the Independent Monitor						period.
chedule C - 12		and the Department must consider any submissions provided by the Community on the engagement of the Independent Monitor prior to	1	1	N/A	Not Applicable		
		advertising the tender.						
		a period of engagement between three and five years;						Engagement was for three years with an option for extension.

		orkbook - DITT Audit period 01 May 2022 to 30 April 2023					
Authorisation	18 June 2021 Authorisation Condition No.		Condition included 2023 audit	Relevant to DITT	Score	Compliance Level	Evidence 2023 Comments 2023
Schedule C - 13.b	Schedule C - 13.b	a statement acknowledging that the Operator is responsible for the costs of the Independent Monitor;	1	1	N/A	Not Applicable	Engagement of the Independent Monitor occurred before the audit period.
Schedule C - 13.c.i	Schedule C - 13.c.i	act independently of the Department, the Operator, the Minister and any other person; and	1	1	N/A	Not Applicable	Engagement of the Independent Monitor occurred before the audit period.
Schedule C - 13.c.ii	Schedule C - 13.c.ii	act honestly, reasonably and with the degree of professional care, knowledge, experience, skill and diligence which may reasonably be expected; and	1	1	N/A	Not Applicable	Engagement of the Independent Monitor occurred before the audit period.
Schedule C - 13.c.iii	Schedule C - 13.c.iii	act within the time prescribed under these Conditions, the terms of engagement, or where no time is prescribed, within a reasonable time; and	1	1	N/A	Not Applicable	Engagement of the Independent Monitor occurred before the audit period.
chedule C - 13.c.iv	Schedule C - 13.c.iv	immediately notify the Department in writing upon becoming wave of the existence or possibility of a conflict of interest;	1	1	N/A	Not Applicable	Engagement of the Independent Monitor occurred before the audit period.
Schedule C - 13.d	Schedule C - 13.d	an obligation on the Independent Monitor to keep all information provided to the Independent Monitor confidential.	1	1	N/A	Not Applicable	Engagement of the Independent Monitor occurred before the audit period.
Schedule C - 14		If the Independent Monitor requires an indemnity, the Operator must enter into a binding agreement providing a reciprocal indemnity to the Department.	1	1	N/A	Not Applicable	None requested by Independent Monitor.
Schedule C - 15		The Department must notify the Operator of the appointment of the Independent Monitor and must provide the Operator with a copy of the terms of engagement.	1	1	N/A	Not Applicable	Engagement of the Independent Monitor occurred before the audit period.
Schedule C - 16		The Operator and the Department must not interfere or attempt to influence the Independent Monitor in its assessment of environmental performance under these Conditions.	1	1	4	Full Compliance	The Operator and the DITT have not interfered or attempted to influen the Independent Monitor.
Schedule C - 17.a	Schedule C - 17.a	cooperate with the Independent Monitor; and	1	1	4	Full Compliance	High level of cooperation from DITT in assisting the Independent Monitor.
Schedule C - 17.b	Schedule C - 17.b	provide all necessary information and documents within their possession, custody or control to the Independent Monitor; and	1	1	4	Full Compliance	All requests for information have been responded to and the relevant documentation provided.
Schedule C - 17.c	Schedule C - 17.c	procure for the Independent Monitor access to such premises owned, leased, or licensed by it as may be reasonably necessary,	1	1	4	Full Compliance	Independent Monitor workshops and meeting conducted at DITT's Darwin office in the audit period and afterwards related to the audit.
Schedule C - 17.d	Schedule C - 17.d	to enable the Independent Monitor to undertake its assessment of environmental performance under these Conditions.	1	1	4	Full Compliance	DITT has facilitated and assisted the Independent Monitor to undertake its assessment of environmental performance against Authorisation Conditions.
Schedule C - 18	Schedule C - 18	The Independent Monitor must engage with the Operator, the Department and the Community in undertaking the independent monitoring assessment.	1	1	4	Full Compliance	Independent Monitor face to face consultation with Borroloola community facilitated by local NT business in October 2022. Various interviews were held with DITT and the Operator during the audit.
Schedule C - 19.a	Schedule C - 19.a	the Independent Monitor must advise the Operator and the Department of the issue as soon as practicable and may include recommendations as to action to be taken; and	1	1	N/A	Not Applicable	No issues were identified by the Independent Monitor.
Schedule C - 19.b	Schedule C - 19.b	the Operator must consider the advice, and any recommendations, from the Independent Monitor and notify the Department and the Independent Monitor of the action the Operator proposes to take; and	1	1	N/A	Not Applicable	No issues were identified by the Independent Monitor.
Schedule C - 19.c	Schedule C - 19.c	the Department may, where appropriate, advise the Operator and the Independent Monitor of action the Department proposes to take; and		1	N/A	Not Applicable	No issues were identified by the Independent Monitor.
Schedule C - 19.d	Schedule C - 19.d	the Independent Monitor may provide further advice to the Operator, and where appropriate the Department, regarding the proposed action and the Operator and the Department must consider the further advice; and	1	1	N/A	Not Applicable	No issues were identified by the Independent Monitor.
Schedule C - 19.e	Schedule C - 19.e	if, after providing further advice, the Independent Monitor is not satisfied with the proposed action, the Independent Monitor may	1	1	N/A	Not Applicable	No issues were identified by the Independent Monitor.
Schedule C - 19.f	Schedule C - 19.f	the Operator and the Department must facilitate the Independent Monitor's investigation and report.	1	1	N/A	Not Applicable	No issues were identified by the Independent Monitor.

Authorisation (Compliance Wo	orkbook - DITT Audit period 01 May 2022 to 30 April 202	3					
-	18 June 2021 Authorisation Condition No.		Condition included 2023 audit	to	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule C - 20	Schedule C - 20	The independent monitoring assessment is to be conducted, where practical, in a manner that complements the existing annual environmental assessment and audit processes undertaken by the Operator and the Department.	1	1	N/A	Not Applicable		The audit period aligns with the Operator's EMR dates and the AEPAR will be provided in the same calendar year as the EMR.
Schedule C - 21.a	Schedule C - 21.a	annually to the Minister to assist with the review of the Mining Management Plan; and	1	1	N/A	Not Applicable		The AEPAR fulfills this condition.
Schedule C - 21.b	Schedule C - 21.b	on request by the Minister.	1	1	N/A	Not Applicable		
Schedule C - 22	Schedule C - 22	The Minister must provide a report received from the Independent Monitor to the Operator and the Department within 14 days of receiving the report.	1	1	N/A	Not Applicable	Minister for Mining and Industry sent correspondence seeking feedback on the Independent Monitor report (AEPAR) from the Operator and DITT 26 days after receiving the report. Letter From Minister to Operator. This was not achieved within 14 days however, it is not a DITT requirement.	There is no DITT action in this condition. The AEPAR was provided to the Minister and letter was sent from the Minister.
Schedule C - 23	Schedule C - 23	The Independent Monitor must prepare an additional report in a form suitable for distribution to the Community.	1	1	4	Full Compliance	Annual Report Card summarising the Independent Monitor findings was released by the Minister on DITT website January 2023.	
Schedule C - 24	Schedule C - 24	The Operator and the Department acknowledge that the report from the Independent Monitor will be made publicly available (including publication on an appropriate internet site) and may include data used in the preparation of the report.	1	1	4	Full Compliance	Independent Monitor Report (AEPAR) made publicly available by posting on DITT website (viewed by Independent Monitor on 3May2023). https://industry.nt.gov.au/publications/mining-and-energy/public-environmental-reports/mining/mcarthur-river-independent-monitor.	
Schedule C - 25	Schedule C - 25	Prior to being made publicly available, the Minister must request from the Operator and the Department any comments on the Independent Monitor's report. Such comments must be provided within 28 days of the Minister's request and must be made publicly available with the Independent Monitor's report.	1	1	4	Full Compliance	Correspondence between DITT and Minister. Correspondence between Operator and Minister relating to Response to 2021-2022 Independent Monitor Report Letter to Minister Manison. Independent Monitor sighted correspondence and comments from both DITT and Operator were submitted within 28 days.	Request from the Minister and response from Operator on and DITT were within 28 days from the request.
Schedule C - 26	Schedule C - 26	The Operator acknowledges that it is responsible for all costs of the independent monitoring assessment other than those costs directly attributable to those elements of the independent monitoring assessment associated with Condition 21(b)) which are the responsibility of the Department.	1	1	N/A	Not Applicable		Nothing has been triggered under condition 21.b.
Schedule C - 27		The Department may provide to the Operator, from time to time, a notice setting out amounts due and payable under the terms of the engagement of the Independent Monitor.	1	1	4	Full Compliance	DITT issued invoices to the Operator for reimbursement of expenses incurred by DITT in the administration of contract D19-0053 for Independent Monitor Services.	
Schedule C - 28	Schedule C - 28	The Operator must pay an amount notified in accordance with Condition 27 within seven (7) days of receiving such notice.	1	1	4	Full Compliance		DITT advised there have been no issues with payment and invoice examples were received by the Independent Monitor. OBS: DITT invoices require payment within a month rather than within seven days of receipt as stated in this condition; however, this longer timeframe appears acceptable and should be amended.
Schedule C - 29.a	Schedule C - 29.a	the Operator must pay the amount specified in the notice in accordance with Condition 28; and	1	1	N/A	Not Applicable		No disputes in the audit period.
Schedule C - 29.b	Schedule C - 29.b	the Operator must notify the Department in writing within 14 days of receiving the notice, setting out the reasons why the Operator disputes the notice; and	1	1	N/A	Not Applicable		No disputes in the audit period.
Schedule C - 29.c	Schedule C - 29.c	the Chief Executive of the Operator and the Chief Executive of the Department must meet within five (5) working days to resolve the dispute.	1	1	N/A	Not Applicable		No disputes in the audit period.
Schedule C - 30	Schedule C - 30	If there is a dispute (other than a dispute mentioned in Condition 29) between the Operator and the Department as to any matter or thing arising out of these Conditions (the "Dispute"), the party claiming that a Dispute has arisen must notify the other party to the Dispute and the Chief Executive of the Operator, the Chief Executive of the Department and the Independent Monitor must meet within five (5) working days to resolve the Dispute.	1	1	N/A	Not Applicable	DITT advised no disputes in the audit period.	No disputes in the audit period.

5 May 2022	18 June 2021		Condition	Relevant		Compliance		
Authorisation	Authorisation	Condition/Requirement	included	to	Score	Compliance Level	Evidence 2023	Comments 2023
ondition No.	Condition No.		2023 audit	DITT		Levei		
		If the Chief Executive of the Operator, the Chief Executive of the						No disputes in the audit period.
		Department and the Independent Monitor are unable to resolve a						
chedule C - 31	Schedille (- 31	Dispute within ten (10) working days of meeting in accordance with	1	1	N/A	Not Applicable		
		Condition 30, the Operator and the Department may agree to the appointment of an independent party to assist in the resolution of the						
		Dispute.						
		If, within five (5) working days of either the Operator or the Department						No disputes in the audit period.
		nominating a person to be the independent party, no agreement is						
chedule C - 32	Schedille (- 37	reached as to who is to be appointed as the independent party, either the Operator, the Department or both may refer the matter to the	1	1	N/A	Not Applicable		
		President of the Law Society of the Northern Territory.						
Schedule C - 33		The President of the Law Society Northern Territory may nominate a person to be the independent party and the parties to the Dispute are	1	1	N/A	Not Applicable		No disputes in the audit period.
chedule C - 33		bound to accept the appointment of that person.	_	1	IN/A	Not Applicable		
		The role of the independent party is to assist in negotiating a resolution						No disputes in the audit period.
chedule C - 34	Schedule C - 34	of the Dispute and the independent party cannot make a decision that is	1	1	N/A	Not Applicable		
		binding on either the Operator or the Department. The Operator and the Department must make available to the						No disputes in the audit period.
Schedule C - 35	Schedule C - 35	independent party all materials requested by it and must provide the	1	1	N/A	Not Applicable		
ichedule C - 33	Scriedule C - 33	independent party with all other materials relevant to the Dispute.	_	•	14/7	Not Applicable		
chedule C - 36.a	Schedule C - 36.a	Bear their own costs of resolving the Dispute under this Condition;	1	1	N/A	Not Applicable		No disputes in the audit period.
hedule C - 36.h	Schedule C - 36.b	and Bear equally the costs of any independent party engaged.	1	1	N/A	Not Applicable		No disputes in the audit period.
		ITORING AND MANAGEMENT			,	ppee		
		If the Operator establishes a new surface water monitoring location, a						DITT confirmed that the Operator has not established a new surface
Schedule D - 1	Schedule D - 1	written notice of the location (in GDA 94 format) and nature of the monitoring must be given to the Department within 30 days of its	1	1	N/A	Not Applicable		water monitoring location during the audit period as far as they are aware.
		establishment.						awaic.
Schedule D - 2.c	Schedule D - 2.c	the Operator must from 30 August 2017 include data from these	1	1	4	Eull Compliance	Correspondence between DITT and Operator acknowledging receipt of the annual data package.	
criedule D - 2.c	Scriedule D - 2.c	devices in data submission under Condition 7 of Schedule A.	1	1	-	ruii Compilance	2105 - 2204 DITT Data Final did include the continuous monitoring data, where available.	
		construction logs and bore location coordinates in GDA 94 format					EMR 2021-2022 dated 31Aug2022.	DITT confirmed that the Minister did not request any construction lo
Schedule D - 4.a	Schedule D - 4.a	must be available to the Minister on request and provided to the Minister annually in the EMR;	1	1	4	Full Compliance	Construction logs and bore location coordinates are included in the EMR.	logs of maintenance activities or bore decommissioning logs during t audit period.
		logs of maintenance activities must be kept available to the Minister					edistraction of and pore location coordinates are mediated in the Elimin	DITT confirmed that the Minister did not request any construction lo
Schedule D - 4.b	Schedule D - 4.b	on request;	1	1	N/A	Not Applicable		logs of maintenance activities or bore decommissioning logs during t
Liledule D - 4.b	Scriedale D - 4.b		1	1	IN/A	Not Applicable		audit period.
		logs of bore decommissioning activities must be kept and available to					EMR 2021-2022 dated 31Aug2022.	DITT confirmed that the Minister did not request any construction lo
chedule D - 4.c	Schedule D - 4.c	the Minister on request and reported in the Operator's Annual EMR.	1	1	4	Full Compliance		logs of maintenance activities or bore decommissioning logs during to
chedule B 4.6	Schedule B 4.6		-	-		Tun compilance	The EMR stated "No monitoring bores were decommissioned during the 2021/22 monitoring period."	audit period.
		Adaptive Management Plan, which includes:					DITT approval letter August 2022 stated that the Environmental Management Plans (including AMP) were	
		,					assessed as meeting the requirements of Schedule D conditions 6 and 7.	
							EMR 2021-2022 dated 31Aug2022.	
chedule D - 6.a			1	1	4	Full Compliance	DITT Advised that their regulatory role includes confirming the related section is included in the EMR (advised it	
							was informally approved at TWG although no evidence was provided); and through environmental incident	
							reporting per s29 MMA (i.e. operator required to advise of any incidents - none received re NOEF, only re	
							concentrate spills).	
		Water Management Plan – surface water, groundwater and fluvial sediments;					DITT approval letter August 2022 stated that the Environmental Management Plans (including AMP) were assessed as meeting the requirements of Schedule D conditions 6 and 7.	Note submission of WMP due to changes required related to the WI but immaterial to the Authorisation.
		seuments,					EMR 2021-2022 dated 31Aug2022.	put inimaterial to the Authorisation.
						Full Commit		
nedule D - 6.a.i	Schedule D - 6.b		1	1	4	Full Compliance	DITT Advised that their regulatory role includes confirming the related section is included in the EMR (advised it	
							was informally approved at TWG although no evidence was provided); and through environmental incident reporting per s29 MMA (i.e. operator required to advise of any incidents - none received re NOEF, only re	

Authorisation (Compliance Wo	rkbook - DITT Audit period 01 May 2022 to 30 April 202	3					
Authorisation	18 June 2021 Authorisation Condition No.	Condition/Requirement	Condition included 2023 audit	Relevant to DITT	Score	Compliance Level	Evidence 2023	Comments 2023
Schedule D - 6.a.ii	Schedule D - 6.c	Air Quality;	1	1	4	Full Compliance	DITT approval letter August 2022 stated that the Environmental Management Plans (including AMP) were assessed as meeting the requirements of Schedule D conditions 6 and 7. EMR 2021-2022 dated 31Aug2022. DITT Advised that their regulatory role includes confirming the related section is included in the EMR (advised it was informally approved at TWG although no evidence was provided); and through environmental incident reporting per s29 MMA (i.e. operator required to advise of any incidents - none received re NOEF, only re concentrate spills).	
Schedule D - 6.a.iii		Rehabilitation Management Plan	1	1	4	Full Compliance	DITT approval letter August 2022 stated that the Environmental Management Plans (including AMP) were assessed as meeting the requirements of Schedule D conditions 6 and 7. EMR 2021-2022 dated 31Aug2022. DITT Advised that their regulatory role includes confirming the related section is included in the EMR (advised it was informally approved at TWG although no evidence was provided); and through environmental incident reporting per s29 MMA (i.e. operator required to advise of any incidents - none received re NOEF, only re concentrate spills).	
Schedule D - 6.b.		Waste Management Plan	1	1	4	Full Compliance	EMR 2021-2022 dated 31Aug2022. DITT Advised that their regulatory role includes confirming the related section is included in the EMR (advised it was informally approved at TWG although no evidence was provided); and through environmental incident reporting per s29 MMA (i.e. operator required to advise of any incidents - none received re NOEF, only re concentrate spills).	OBS: This condition is an MMP requirement and therefore does not have a specified timeframe (e.g. 3 years) for review. Any material changes to the Waste Management Plan would need to be approved as required in condition D-7. However, this situation potentially allows the contents to be outdated with no trigger to review them.
Schedule D - 6.c		NOEF Management Plan	1	1	4	Full Compliance	EMR 2021-2022 dated 31Aug2022. DITT Advised that their regulatory role includes confirming the related section is included in the EMR (advised it was informally approved at TWG although no evidence was provided); and through environmental incident reporting per s29 MMA (i.e. operator required to advise of any incidents - none received re NOEF, only re concentrate spills).	
Schedule D - 6.d		BBLF Environment Management Plan	1	1	4	Full Compliance	EMR 2021-2022 dated 31Aug2022. DITT approval letter August 2022 stated that the Environmental Management Plans (including AMP) were assessed as meeting the requirements of Schedule D conditions 6 and 7.	
Schedule D - 6.e		Unplanned Closure Plan	1	1	4	Full Compliance	Implementation is reviewed as part of the EMR review and at each Unplanned Closure Plan submission.	
Schedule D - 7		Any required material changes to the Environmental Management Plans mentioned in Condition 6 of this Schedule must be approved by the Department in writing.	1	1	4	Full Compliance	DITT approval letter August 2022 stated that the Environmental Management Plans (including AMP) were assessed as meeting the requirements of Schedule D conditions 6 and 7.	The Operator submitted AMP version E to DEPWS, not DITT. DTIT advises that the difference between version D and version E is in relation to the Water Management Plan (to address requirements of the WDL) and one minor change to the AMP. The Operator did not submit a singular document entitled "AMP_version E" to DITT, rather they advised DITT of the changes. Similarly the Water Management Plan changes were not material to DITT. Revised Unplanned Closure Plans were submitted as audited under Conditions 11.c. and 99. DITT and the Independent Monitor are not aware of any other material changes to the Environmental Management Plans mentioned in Condition 6.



Appendix D NT EPA Recommandations Compliance Workbook - DITT

Audit Period 1 May 2022 to 30 April 2023

NT EPA Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
1	The Proponent shall ensure that the McArthur River Mine Overburden Management Project is implemented in accordance with all environmental commitments and safeguards:	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May2022 - Condition 14. sub parts a, b and c.	Note: "Confirmed condition in Authorisation 0059 dated 05May22 - Condition 14" text in the evidence column is referring to whether the NT EPA Recommendation was adopted into an Authorisation condition and references the corresponding condition number. This approach is used throughout this NT EPA Recommendations Compliance Workbook - DITT in the evidence column. In January 2020, as required under Section 41 of the MMA, the Operator submitted for assessment an amended Mining Management Plan (MMP) for the OMP works addressing commitments made in the EIS, the NT EPA recommendations and EPBC Act approval conditions. DITT completed assessment of the 2020 MMP. Authorisation 0059 issued under section 38 of the MMA on 13Nov2020 approved the 2020 MMP proposing the OMP related activities. The commitments and safeguards made in relation to the OMP by the Operator and NT EPA in their recommendations were first incorporated as conditions where relevant in Authorisation 0059 issued 15Aug2019 and retained in all subsequent Authorisations. Future action: Compliance monitoring will be ongoing. Examples include continuation of health of MacArthur River monitoring, specifically bio-uptake of metals in flora and fauna and NOEF monitoring including infrared to measure heat (west stage with high convective oxidation). Monitoring program reports to be submitted with the EMR annually.
1.i	identified in the final Environmental Impact Statement for the McArthur River Mine Overburden Management Project (draft Environmental Impact Statement, Supplement to the draft Environmental Impact Statement and additional information)	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May2022 - Condition 14.a). 2022 EMP Appendix B - Reconciliation of Commitments and Actions (incorporating EIS and MMP commitments)	In January 2020, as required under Section 41 of the MMA, the Operator submitted for assessment an amended MMP for the OMP works addressing commitments made in the EIS, the NT EPA recommendations and EPBC Act approval conditions. EMR 2023 contains Appendix B - Reconciliation of Commitments and Actions to address implementation of EIS and MMP commitments.
1. ii	recommended in this Assessment Report 86.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 14.b).	No action for DITT. TSF, EPROD, CW Charlie basal construction (NT EPA recommended a 0.5m CCL), bridging MMP was approved consistent with NT EPA recommendations before they were a requirement or commenced construction.
1 continued	The Northern Territory Environment Protection Authority considers that all safeguards and mitigation measures outlined in the Environmental Impact Statement are binding commitments made by the Proponent. Where there is an inconsistency between the commitments made by the Proponent and these recommendations, the recommendations will take precedence.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May2022 - Condition 14.c. Note: The Authorisation shall prevail, rather than the Recommendations, in the event of an inconsistency.	Inconsistency addressed in condition in Authorisation 0059 dated 18June21 - Condition 14.c). "the most recent Authorisation shall prevail to the extent of any inconsistency". The role of DITT to ensure actions are not contrary to the NT EPA recommendations and that their intent has been complied with. Operator commitments are listed in 2023 Environmental Monitoring Report, Appendix B - Reconciliation of Commitments and Actions.
2	The Proponent shall provide written notice to the Northern Territory Environment Protection Authority and the responsible Minister if it alters or proposes to alter the McArthur River Mine Overburden Management Project and/or commitments, safeguards or mitigation measures in the Environmental Impact Statement in such a manner that the environmental significance of the action may have changed, in accordance with clause 14A of the Environmental Assessment Administrative Procedures.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May2022 - Condition 15. Situation has not arisen. Would be considered on a case by case basis.	The 2020 MMP has been assessed by DITT and conforms to the NT EPA Recommendations.

Audit Period 1 May 2022 to 30 April 2023

NT EPA Recommendation No. 3	NT EPA Recommendation The Proponent shall ensure that the commitments and safeguards listed in the EIS for the McArthur River Mine Overburden Management Project and recommended in this Assessment Report 86 are implemented in a manner and to the extent that ensures the health of	Score	Compliance Level	16. Note: The overarching environmental outcome is not specifically stated in	Compliance monitoring under the MMA will be ongoing. Annual EMR report (latest 31 August 2023) informed by expert consultants engaged by Operator. Experts review and assess the data. EMR comments on how Operator intends to action recommendations and report on monitoring programs. WDL annual return with water quality monitoring reporting requirements also submitted 31 August 2023
	the McArthur River is protected along its whole length at all times from mine related impacts. This is the overarching environmental outcome that is required to be achieved in respect of the Proposal and all future stages of the mine.	4	Full Compliance	the Authorisation however, the Authorisation contains requirements that contribute to achieving the outcome.	under the Water Act. DITT reviews previous EMRs to determine if issues have been addressed and if recommendations have been actioned. DITT notifies operator via letter of acceptance (or otherwise) of EMR.
3 continued	To ensure the protection of the McArthur River from mine related impacts, the Proponent shall ensure that the annual loads of lead and zinc discharged to the McArthur River in future years (July to June) do not exceed the loads discharged in 2017-2018, taking into account seasonal variations in rainfall, and subject to future annual load calculations.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May2022 - Condition 16.b MRM Mine Derived Analyte Loads criteria for 2017-18 submitted to DITT, email 11:00am 08May20. EMR 2023 Executive Summary table ES-5 Fluvial Sediments and EMR 2023 Appendix J - 2021 Monitoring of Metals/Lead in Fluvial Sediments and Aquatic Fauna assess performance during the reporting period and discusses zinc and lead concentration in fluvial sediment.	The Independent Monitor reviewed the Adaptive Management Plan (AMP) in May 2020 and advised it is appropriate for the current stage of the Project. The Independent Monitor reviewed the AMP (Rev E, 13May2022) in December 2022 and assessed that the AMP has been developed and implemented consistent with the requirements of Authorisation. The sixth iteration (Rev E) of the AMP better fulfils aspects of the Authorisation requirements, including the addition of new sections and figures that provide greater clarity, rigour, structure and definition of the processes. DITT will oversee implementation by the Operator of the AMP, in accordance with NT EPA recommendation 28, which allows for management measures and interventions to be adapted if necessary to achieve this overarching environmental outcome. Related to NT EPA recommendation 27 which refers to a review within nine months following OMP authorisation, the next AMP review by Independent Monitor scheduled for late 2022. Future action: Condition recognises that the AMP will change over time and provides an approval requirement. Compliance monitoring will be ongoing. Operator submitted loads criteria for 2017-2018 on 08May2020 in response to Condition 38 of the Authorisation. Subsequent annual EMRs, including the current EMR 2023, report against those values.
3 continued	The Proponent shall implement a monitoring program, developed in accordance with Recommendation 13, within six months of authorisation of the Proposal, to the satisfaction of the relevant regulator. The monitoring program shall quantify the annual loads of lead and zinc entering the main channel of the McArthur River and be used to assess whether or not the load limits specified herein have been met. A load summation shall be provided to the Independent Monitor for auditing at three yearly intervals.	4	Full Compliance	16.c. Operator future requirement.	Operator future requirement within 18 months of the authorisation of the OMP. Timeframe for the requirement to prepare a plan for monitoring is stated as 18 months in the OMP Authorisation rather than 6 months as stated in the NT EPA recommendations. DITT advises 18 month timeframe is in recognition of adequate time to undertake a quality review including incorporating results from other relevant studies. Note: No OFI required as Authorisation has set the lead and zine loads monitoring program implementation timeframe.

Audit Period 1 May 2022 to 30 April 2023

NT EPA Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
3 continued	The Proponent shall implement an Adaptive Management Plan, to be developed in accordance with Recommendation 28, to allow for management measures and interventions to be adapted if necessary to achieve this overarching environmental outcome.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May2022 - Condition 16.d. Operator requirement to implement AMP	The Independent Monitor has reviewed the Adaptive Management Plan (AMP) version 31Jan2020 and provided comments 15 May 2020. The Independent Monitor reviewed the AMP (Rev E, 13 May 2022) in December 2022 and assessed that the AMP has been developed and implemented consistent with the requirements of Authorisation. The sixth iteration (Rev E) of the AMP better fulfils aspects of the Authorisation requirements, including the addition of new sections and figures that provide greater clarity, rigour, structure and definition of the processes. The review found the AMP adequately meets the Authorisation as it 'partly satisfies' or 'satisfies' all of the active requirements of the Authorisation's key Conditions 45, 46 and 47 as well as sixteen other relevant conditions. These findings were based upon document reviews, interviews and monitoring evidence obtained that demonstrated a high level of implementation action that supports the overall conclusion that the Operator is meeting the required outcomes as stated in the key environmental objectives. DITT will oversee implementation by the Operator of the AMP, consistent with NT EPA recommendation 28, which allows for management measures and interventions to be adapted if necessary to achieve this overarching environmental outcome. The next Independent Monitor review of the AMP is scheduled for 2025.
4	The Proponent shall implement all stages of the Proposal to meet the NT EPA's overarching environmental outcome provided for in Recommendation 3 to the satisfaction of the relevant regulator. In doing so, the Proponent shall ensure:	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May23 - Condition 17.	Refer to NT EPA recommendation 13. The ecotoxicological research and investigation program is complete and the WDL now has amended SSTVs criteria to monitor against. Amended SSTVs approved under Water Act by DEPWS 10Mar2022 and WDL174 -13 was issued. Operator submitted an amended AMP incorporating the revised SSTVs to DITT for review under MMA on 13Nov2021. Revised AMP (AMP-D) approved 15Aug22.
4.i	water quality in the McArthur River meets site-specific trigger values determined in accordance with ANZECC (2000) guidelines at appropriate monitoring locations determined in accordance with Recommendation 13	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May2022 - Condition 17. a) i. Monitoring locations in accordance with recommendation 13 are referenced in Condition 17.a).i. and have been incorporated in Condition 27.b). i, ii and iii.	Operator requirement: within 18 months of the authorisation of the OMP i.e. by 13May2022. Ecotoxicological program completed within 18month of OMP approval, submitted to DITT 25Oct21. The Operator submitted an amended AMP incorporating the revised SSTVs (AMP-D) to DITT for review on 13Nov2021. DITT determined AMP-D to meet the requirements of Schedule D Conditions 6 and 7 and approved AMP-D, 15Aug22
4.ii	creeks on the mine site show long-term improving trends in water quality within 20 years after cessation of mining.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May2022 - Condition 17. a) ii.	Future item: 20 years after cessation of mining. Historic water quality data held by DITT will provide a basis for comparison. EMR 2023 describes Barney Creek and Surprise Creek in similar condition to previous recent year's condition. Barney Creek haul road bridge targeted sediment removal (2021 and 2022) and TSF interception trench (commissioned 2020) adjacent to Surprise Creek have resulted in creek's water quality monitoring data improvements.

Audit Period 1 May 2022 to 30 April 2023

NT EPA Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
5	Approvals and decisions in relation to the Proposal shall include conditions that require the Proponent to calculate contaminant loads and contaminant concentrations entering creeks and the McArthur River using models that have been regularly reviewed and recalibrated. Specific assumptions to be tested include but are not limited to:	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 17.iii.	
5.i	groundwater flow paths	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 17.iii.c.i. Hydrogeological investigations to be undertaken.	Advised by the DITT that the Operator has commissioned additional hydrogeological investigations that will include calculating contaminant loads and contaminant concentrations entering creeks and the McArthur River. The Operator will drill a number of additional bore holes to increase site data and increase certainty around calibration of the model.
5.ii	attenuation of metals from mine-derived wastes.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May2022 - Condition 17.iii.c.ii.	Advised EPBC conditions has further prescriptive requirements to do studies.
5 continued	Updated modelling shall use suitable site-specific data collected in the monitoring program. Models and modelling outputs, and the data collection programs to inform model updates, shall be reviewed at three year intervals by relevant Independent Panels appointed in accordance with Recommendations 8, 11 and 23, and the outputs used to inform the Adaptive Management Plan, to be developed in accordance with Recommendation 28.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May2022 - Condition 18. Future requirement.	Independent Panel responsibility, (Condition 17.a.iii.b), to review models and modelling outputs and the data collection programs that informed the model development in future. Once accepted or otherwise, information to be incorporated into AMP. Future requirement as the Independent Panel(s) of experts is yet to be established, noting TORs for Independent Panels for both NOEF and TSF approved 12Dec22
6	Approvals and decisions in relation to the Proposal shall include conditions that require an audit to be conducted of the Proponent's Quality Assurance / Quality Control procedures and waste rock identification and handling performance every three years and reported to the relevant Independent Panel and the relevant regulator.	4	Full Compliance	Independent Monitor Audit of Waste Rock Handling Procedures conducted 13-15 June 2022.	The Independent Monitor June 2022 audit reviewed the Operator processes associated with waste rock classification, mining and haulage as well as the NOEF design, construction and operation. The audit assessed the Operator to be achieving a "good to very good" level of implementation of the Management Plan requirements. The Operator has demonstrated effective action to address stated objectives for the design, construction and operation of the NOEF. Overall, the collective advancements in waste rock handling procedures since the OMP EIS provide an elevated level of environmental protection for the receiving environment including the McArthur River. The audit report highlights some medium and some longer-term opportunities for improvement in relation to greater resolution in waste rock classification, monitoring NOEF seepage, cover trials, NOEF revegetation trials and collating existing monitoring data for further analysis. The next Waste Rock Handling Procedures Audit by the Independent Monitor is due in three years, 2025.
7	The basal layer of the NOEF foundation shall be constructed with a compacted clay layer of at least 0.5 m thickness to limit seepage to groundwater during construction of the NOEF.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 20. NOEF CWE ICE Review Letter 23Apr2020 Advised DITT assessment structure complies with 0.5m CCL for CENOEF. Independent Monitor Waste Rock Audit site visit (13-15June2022) observed CCL Northern NOEF under construction and geotechnical laboratory materials testing of clay properties.	For approval of any OMP-related activities, Operator to prepare and submit an amended MMP under Section 41 of the MMA that details the construction details of the NOEF. DITT has completed the assessment of the MMP and the proposed NOEF construction and development satisfies regulatory requirements as part of OMP Authorisation 13Nov20. Conditions included in Authorisation 0059 effective from the Authorisation issued on 15Aug2019 specific to the construction of the NOEF. DITT advised that relevant conditions have been in all Authorisations since 12Oct2018.

Audit Period 1 May 2022 to 30 April 2023

NT EPA Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
8	Approvals and decisions in relation to the proposal will include conditions requiring the Proponent to provide funding to establish and operate a panel of independent experts to:	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 21.	Arrangements for Independent Expert Panel of Experts commencement underway. TORs have been approved for NOEF Arrangements for establishment of Independent Expert Panel of Experts commencement underway. TORs have been approved for NOEF and TSF panel approved 12Dec22, panel composition and membership currently in-progress.
8.i	review every three years the outcomes of the Proponent's management program for the NOEF, including the stability, surface condition, internal temperature, reactions and seepage quantity and characteristics of the NOEF to ensure the overarching environmental outcome can be met	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 23.d).ii. refers to NOEF rehabilitation trial result and monitoring outcomes. No reference to a requirement to review the NOEF Management Program every three years in the Authorisation. NOEF Independent Panel ToR (approval 12Dec22), Section 2 includes a technical review every three years.	NOEF geosynthetic liner cover system plan (dated 12Nov22) submitted to the DITT. Note: No OFI recorded as three year NOEF Independent Panel review is incorporated into Final TOR, approved 12Dec22.
8.ii	review NOEF runoff and seepage monitoring results, and in particular trends in the contaminant concentrations in groundwater, and loads entering creeks and the McArthur River	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 22.a), b) and c). NOEF seepage and runoff, contaminate concentrations in groundwater loads reported in 2023 EMR - Appendix H - Groundwater Monitoring Report and Appendix M - Monitoring of Select Analytes & Lead in Fluvial Sediments & Aquatic Fauna.	A NOEF Interception Scheme Report Authorisation Condition 22 was submitted to DITT on 13Nov2021, which is on the due date. Submission by the Operator of documents in compliance with relevant conditions of Authorisation are to be reviewed by the relevant expert panel with subsequent advice to inform DITT assessment and regulatory action.
8.iii	review the cover trial results, construction quality records, critical controls, stability assessments, cover performance and performance of progressive rehabilitation of the NOEF.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 21. Cover trail 10ha BGM (Bituminous Geomembrane) liner installed on section of southern NOEF batter in late 2021.	Refer to 8.ii.
8 continued	The panel shall provide a report every three years to the relevant regulator and the Independent Monitor and the report made available to the Proponent, government agencies, the Community Reference Group and the public. The panel is to be formed:	4	Full Compliance	Confirmed establishment and operation of an Independent panel(s) of experts in condition in Authorisation 0059 dated 05May22 - Condition 21. No requirement in the Authorisation for the panel to provide a report every three years.	The NOEF Panel TOR (approved 12Dec22) states that the Panel will undertake a technical review once every three years focused on the: 1. outcomes of the NOEF management program 2. NOEF seepage monitoring results and the appropriateness of the monitoring program 3. cover trial results, construction quality records, critical controls, stability assessments, cover performance and performance of progressive rehabilitation of the NOEF. Note: No OFI recorded as three year NOEF Independent Panel review is incorporated into Final TOR, approved 12Dec22.

Audit Period 1 May 2022 to 30 April 2023

	2022 to 30 April 2023				
NT EPA Recommendation	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
No. 8.iv	with an independent chair, appointed by the responsible Minister in consultation with the Minister for Environment and Natural Resources	4	Full Compliance	Confirmed establishment and operation of an Independent panel(s) of experts in condition in Authorisation 0059 dated 05May22 - Condition 21. Reference to panel Independent Chair has been removed from Authorisation 13Nov20 and 18Jun21 and 05May22.	Note: No OFI recorded as the Independent Chair requirement is incorporated into Final TOR, approved 12Dec22, refer Excerpt 1: The Panel is to be formed: iv. with an independent chair, appointed by the responsible Minister in consultation with the Minister for Environment and Natural Resources.
8.v	on the advice of the Department of Environment and Natural Resources, the Department of Primary Industry and Resources, and the Proponent.	4	Full Compliance	Confirmed establishment and operation of an Independent panel(s) of experts in condition in Authorisation 0059 dated 05May22 - Condition 21. No reference to advice from DEPAWs, DITT or MRM in the Authorisation.	DITT, with support from the Operator, developed a Terms of Reference, for NOEF, TSF and mine closure planning. Draft Terms of Reference for NOEF Independent Panel were circulated for comment to DITT, DEPWS, NT EPA and DAWE in July 2021. Final ToRs for NOEF and TSF Independent Panels were approved 12 Dec22. Closure Panel Draft TOR were prepared in May 2023.
8 continued	Terms of Reference for the panel shall set out the terms for roles and responsibilities, membership, timeframe for commencement and scope, reporting obligations and transparency and accountability. The Terms of Reference shall be finalised by the responsible Minister, in consultation with the Minister for Environment and Natural Resources acting on advice from the NT EPA, within three months of authorisation of the Proposal.	4	Full Compliance	Confirmed establishment and operation of an Independent panel(s) of experts in condition in Authorisation 0059 dated 05May22 - Condition 21. Final ToRs for NOEF and TSF Independent Panels were approved 12 Dec22, after the three months of Authorisation. Reference to terms of reference requirements has been removed from Authorisation 13Nov21 and 18June 21 and 05May23. ToRs for NOEF and TSF Independent panels includes references to roles, responsibilities, membership, scope, reporting, transparency and accountability.	Draft Terms of Reference for NOEF were circulated for comment to DITT, DEPWS, NT EPA and DAWE in July 2021. NOEF Independent Panel TOR Final Draft version August 2022. Note: No OFI recorded as Final TOR for NOEF and TSF Independent Panels, approved 12Dec22. OBS: The establishment of the Independent Panel(s) of experts has taken an unduly long time. Not having an Independent Panel in place is now impacting on the ability to fulfil Authorisation conditions where the Panel's involvement is a prerequisite.
	The structure of the panel and its Terms of Reference shall be reviewed by the Responsible Minister, in consultation with the Minister for Environment and Natural Resources every six years from the date the Terms of Reference are finalised.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May23 - Condition 21 No reference to six year review of structure of the panel and ToR in the Authorisation.	. Note : No OFI recorded as Final TOR for NOEF and TSF Independent Panels, approved 12Dec22 contains six year period of review, in Section 7.

Audit Period 1 May 2022 to 30 April 2023

NT EPA	2022 to 30 April 2023				
Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
9	Approvals and decisions in relation to the Proposal shall include conditions that require the Proponent to implement a groundwater interception and recovery system for the NOEF. The system is to be designed to:	4	Full Compliance		DITT advised that the Operator has prepared a report proposed in that the NOEF interception trench is not needed until 2067. OBS: Independent Panel not yet established and unable to review the report and provide an assessment on need and timing for NOEF Interception Trench. (Note: Independent Panel review is not an Authorisation requirement). OBS: DITT response to Operator's NOEF Groundwater Seepage and Recovery System report submission is unduly slow and alternative expert advice could be sought rather than awaiting the establishment of the NOEF Independent Panel. Also Refer to NT EPA Recommendations 3, 4 and 13 above.
·	control seepage to Barney Creek diversion and the McArthur River over the life of the NOEF to as low as reasonably practicable	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 22.a).	Refer to NT EPA Recommendation 9 comments above.
	achieve a recovering trend in the Barney Creek diversion and the old McArthur River channel water quality within 20 years of cessation of mining.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 22.b).	Operator future requirement: within 20 year of cessation of mining.
9 continued	The system design and performance shall be reviewed by the Independent Panel, appointed in accordance with Recommendation 8, and approved by the relevant regulator/s.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 21.	Operator's NOEF groundwater interception report has been submitted to the DITT by the due date 13Nov2021. Authorisation requires interception report within 12 months of OMP approval and EPA recommendation states system design and performance shall be reviewed by the NOEF Independent Panel. OBS: The establishment of the Independent Panel(s) of experts has taken an unduly long time. Not having an Independent Panel in place is now impacting on the ability to fulfil groundwater interception and recovery system Authorisation conditions where the panel's involvement is a prerequisite.
10	Approvals and decisions in relation to the Proposal shall include conditions that require the Proponent to undertake constructability tests for geosynthetic liner cover options, including a geosynthetic liner /compacted clay layer combination, and monitor the options on rehabilitated stages of the NOEF to determine all relevant performance parameters including:		Full Compliance	Confirmed condition in Authorisation 0059 dated 05May23 - Condition 23. a) and b).	Addressed in the 2020 MMP, which appropriately details the proposed liner trials and works to be implemented to develop a NOEF cover system. Also included in the 2019 bridging MMP.

Audit Period 1 May 2022 to 30 April 2023

NT EPA Recommendation	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
No.					
	slope stability during extreme events	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 23. c).i.	
·	cover performance as a result of heat effects	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 23. c).ii.	
	tolerance of the geosynthetic liner to expected differential settlement	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 23. c).iii.	
	veracity of cover longevity predictions	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22- Condition 23. c).iv.	
	likely long-term maintenance requirements.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 23. c).v.	
10 continued	Reporting of trial results and monitoring outcomes shall be provided every three years to the relevant Independent Panel and the Community Reference Group for review, and shall be audited by the Independent Monitor. Outcomes of trials and monitoring shall be used to inform the Adaptive Management Plan, to be developed in accordance with Recommendation 28, and the Closure Plan for the mine.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 23. d) ii.	NOEF geosynthetic liner cover system plan (dated 12Nov22) submitted to the DITT. Operator future requirement: d): Include reporting of trial results and monitoring outcomes: i. within three years from the submission of the plan; ii.every three years thereafter, to the relevant independent panel and the Community Reference Group for review, and shall be audited by the Independent Monitor.
11	Approvals and decisions in relation to the proposal will include conditions requiring the Proponent to provide funding to establish and operate a panel of independent experts to:	4	Full Compliance	Confirmed establishment and operation of an Independent panel(s) of experts in condition in Authorisation 0059 dated 05May22 - Condition 21.	DITT, with support from the Operator, is managing the process to establish and operate an Independent Panel of experts. Final Terms of Reference for TSF were approved on 12 dec22. Draft Terms of Reference for Closure Panel were dated May 2023.
11.i	review every three years the outcomes of the Proponent's management program for the TSF including the berm stability, risk of overtopping, seepage and other aspects of the TSF that could impact on site water quality and the McArthur River, including the risk of catastrophic failure of any component of the TSF, to ensure that the overarching environmental outcome can be met	4	Full Compliance	Independent Panel review of Proponent's TSF management every three years in not contained in the Authorisation 05May22. The TSF Independent Panel TOR Final (approved 12Dec22) has a requirement (Section 6 - Reporting Obligations and Process, paragraph 1) for a TSF Independent panel review report on the TSF performance every three years. TSF operated and maintained in accordance with the most up to date TSF Operations Maintenance and Surveillance Manual ensuring 79.a) no discharge of water 79.d) integrity of the embankment.	In addition to the yet to be established TSF Independent Panel, Authorisation 05May22 Condition 21 The Operator must provide funding and assist the Department to establish and operate an independent panel(s) of experts to advise on matters affecting the environmental performance of the NOEF, TSF and mine closure planning. Operator must provide quarterly report to the Ministers on TSF seepage and seepage management (Condition 80). Note: No OFI recorded as three year TSF Independent Panel review is incorporated into Final TOR, approved 12Dec22.
11.ii	review TSF seepage monitoring results and the appropriateness of the monitoring program.	4	Full Compliance	No reference to Independent Panel review of TSF seepage monitoring results in the Authorisation 05May22. The TSF Independent Panel Final TOR (Approved 12Dec22) has a requirement (Section 2 - Purpose, dot point 2.)TSF panel will undertake a review (every three years)on the seepage monitoring results and the appropriateness of the seepage system	In addition to the yet to be established TSF Independent Panel, Authorisation 05May22 Condition 21. The Operator must provide funding and assist the DITT to establish and operate an independent panel(s) of experts to advise on matters affecting the environmental performance of the NOEF, TSF and mine closure planning. Note: No OFI recorded as three year TSF Independent Panel review is incorporated into Final TOR, approved 12Dec22.

Audit Period 1 May 2022 to 30 April 2023

NT EPA Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
11 continued	The panel shall provide a report every three years to the relevant regulator and the Independent Monitor and is made available to the Proponent, government agencies, the Community Reference Group and the public. The panel shall be formed:	4	Full Compliance	making available to the Operator, government agencies, CRG or the public is contained in the Authorisation 05May22. The TSF Independent Panel TOR Final (approved 12Dec22) has a requirement (Section 6 - Reporting Obligations and Process) to report	In addition to the yet to be established TSF Independent Panel, Authorisation 05May22 Condition 21. The Operator must provide funding and assist the DITT to establish and operate an independent panel(s) of experts to advise on matters affecting the environmental performance of the NOEF, TSF and mine closure planning. Note: No OFI recorded as three year TSF Independent Panel review report is incorporated into Final TOR, approved 12Dec22.
11.iii	With an independent chair, appointed by the responsible Minister in consultation with the Minister for Environment and Natural Resources.	4	Full Compliance	Confirmed establishment and operation of an Independent panel(s) of experts in condition in Authorisation 0059 dated 05May22 - Condition 21. Reference to an independent technical expert to chair the TSF panel appointed by the NT Minister for Mining and Industry in consultation with the NT Minister for Environment is included in TSF TOR Final (approved 12Dec22), Section 4 - Panel Membership Refer 11.i. and 11.ii. above.	TSF Independent Panel Final TOR, approved 12Dec22.
11.iv	on the advice of the Department of Environment and Natural Resources, the Department of Primary Industry and Resources, and the Proponent.	4	Full Compliance	, , , , , , , , , , , , , , , , , , , ,	Draft Terms of Reference for NOEF were circulated for comment to DITT, DEPWS, NT EPA, DEPAWs and the Operator in July 2021. TSF Independent Panel TOR Final Draft version August 2022.
11 continued	Terms of Reference for the panel shall set out the terms for roles and responsibilities, membership, timeframe for commencement and scope, reporting obligations and transparency and accountability. The Terms of Reference shall be finalised by the responsible Minister, in consultation with the Minister for Environment and Natural Resources acting on advice from the NT EPA, within six months of authorisation of the Proposal.	4	Full Compliance	TSF Independent panel TOR Final (approved 12Dec22) includes reference to roles (section 5), responsibilities (Section 5, dot point 1), membership (Section 4), scope (Section 3), reporting (Section 6), transparency and accountability (Section 6, paragraph 4).	TSF Independent Panel Final TOR, approved 12Dec22.
11 continued	The structure of the panel and its Terms of Reference shall be reviewed by the Responsible Minister, in consultation with the Minister for Environment and Natural Resources every six years from the date the Terms of Reference are finalised.	4	Full Compliance	Confirmed establishment and operation of an Independent panel(s) of experts in condition in Authorisation 0059 dated 05May22 - Condition 21. TSF independent panel TOR Final (Approved 12Dec22), Section 7 - Period of Review states TOR shall be reviewed every six years in consultation with the NT Minister for Environment.	TSF Independent Panel Final TOR, approved 12Dec22.

Audit Period 1 May 2022 to 30 April 2023

NT EPA Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
12	As soon as practicable after cessation of mining, tailings and other contaminated earthen materials from the Tailings Storage Facility shall be deposited in the mine pit void using contemporary best-practice placement techniques, then protected with a water cover. Tailings shall preferably be reprocessed before in-pit disposal.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 24.	Condition 24. a) includes requirements for strategies for tailing reprocessing. Operator future requirement: to submit a strategy on long term disposal management of tailings into the mine pit void within 5 years of authorisation of OMP. (due 13Nov25).
12 continued	The intention of these measures is to protect the McArthur River water quality and aquatic ecosystems from surface or groundwater contamination consistent with the NT EPA's overarching environmental outcome in Recommendation 3. Any requirement to vary these measures will need approval from the relevant regulator and notification to the NT EPA in accordance with Recommendation 2. These measures should only be varied on the basis of further information to inform leading practice.	N/A	Not Applicable		Noted.
13	Approvals and decisions in relation to the Proposal shall include conditions that require the Proponent to conduct a review and synthesis of all water monitoring programs (groundwater and surface water) and implement a revised program that is capable of identifying and quantifying impacts of mining activities and their trends on the environmental values and beneficial uses of the McArthur River to measure performance against the NT EPA's overarching environmental outcome in Recommendation 3.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 26.	Operator requirement: within 12 months of the authorisation of the OMP. DITT advised the operator submitted EMR 2021 S.6 p247 - Barney Creek Haul Bridge dust, not runoff, analysis identified sediment contaminates.
13.i	The revised water monitoring program shall: quantify loads of lead and zinc entering the McArthur River each year	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 27.b).i.	
13. ii	quantify impacts to water quality and trends in groundwater and surface water at appropriate points including upstream and downstream of the mine to determine that objectives and targets are being met, including the effectiveness of source control to reduce loads as low as is reasonably practicable	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 27.b).ii.	
13. iii	develop appropriate future trigger values for waterways on the mine site and the McArthur River in accordance with the ANZECC 2000 Guidelines. In the interim, the trigger values in the most current WDL shall be used.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 27.b).iii.	
13 continued	The review and revision of the water monitoring program shall be conducted to the satisfaction of the relevant regulator/s and the NT EPA as part of the broader monitoring review provided for in Recommendation 27 and incorporated into the authorised Adaptive Management Plan.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 27.a).	Subsequent to the audit period, the Amended AMP (version AMP- D version 01Oct21, submitted 13Nov21) approved by the DITT 15Aug22 in intended to been uploaded to the DITT's website.
13 continued	The results of the monitoring program are to be reported by the Proponent to the relevant regulator and audited by the Independent Monitor every three years. The monitoring report together with the Independent Monitor's audit report shall be made available to government agencies, the Community Reference Group and publicly on the Proponent's and relevant regulators' websites.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 27.g).i, ii and iii	Authorisation Condition 27.g).iii. only requires publishing Water Monitoring Plan on the Operator's website, not making the reports available in any other format or on the DITT's website. The condition does not fully reflect the NT EPA recommendation wording. However the DITT intends to publish the Operator reporting on their website. Independent Monitor conducted a site inspection review a the Surface Water Management aspects of the Water Management Plan in May 2023.

Audit Period 1 May 2022 to 30 April 2023

NT EPA Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
14	Approvals and decisions in relation to the Proposal shall include conditions that require the Proponent to prepare and implement a research and investigation program designed to determine the chronic and acute impacts to biota of mine-derived contaminants using recognised and accepted ecotoxicological testing. The program shall be designed to integrate with the monitoring program to be developed in accordance with Recommendation 15. Results of the program shall be used to inform trigger criteria in the Adaptive Management Plan.	4	Full Compliance	Operator requirement is a future requirement within 18 months of the OMP approval (due date 13May 2022). However, Operator submitted Ecotoxicology Research and Investigation Program (version September 2021) to DITT letter dated 25 October 2021. Amended SSTVs approved by DEPWS 10 March 2022 and WDL174 -13 was issued. Operator submitted an amended AMP incorporating the revised SSTVs to DITT for review on 13Nov2021. DITT approved AMP-D, 15Aug22.	Operator requirement: to submit ecotoxicological research and investigation program within 18 months of the approval of the OMP. DITT advised that a revised version of the AMP (version AMP-D 01Oct21 submitted 13Nov21) contained some ecotoxicological data. Condition 28. a) states - the results of this program must be integrated with other relevant programs (stet) monitoring programs and management plans. This may include the AMP. Condition 44 requires within 18 months of the authorisation of the OMP the Operator must undertake a synthesis of all environmental monitoring and the revised monitoring programs must Condition 44. c) be incorporated in the AMP. This may include the ecotoxicological monitoring program. AMP-D incorporating revised SSTVs approved under MMA on 15Aug22.
14 continued	The program shall be prepared and implemented to the satisfaction of the Department of Environment and Natural Resources, and the Australian Government Department of the Environment and Energy.	3	Part Compliance (High)	Confirmed part condition in Authorisation 0059 dated 05May22 - Condition 28.b) the plan once approved by DITT must be implemented by the Operator	Note: No OFI recorded as the Ecotoxicological Program findings and negotiation with regulators (DEPAWs) to amend some local water quality trigger levels was completed in 2022.
15	Approvals and decisions in relation to the Proposal shall include conditions that require the Proponent to implement an aquatic ecosystem monitoring program based on improved understanding of aquatic ecosystems in the McArthur River including flow requirements and available Dry season habitat. The program shall be designed to assess impacts from the mine on:	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 29.	The Operator has undertaken an aquatic ecosystem monitoring program for many years comprised of monitoring including: • Metals in Fluvial Sediments, Fish, Crustations and Molluscs (commenced 2005) • Aquatic Fauna Abundance and Diversity, Early Dry Season and Late Dry Season (commenced 2006) • Freshwater Aquatic Macroinvertebrate Monitoring (commenced 2008) • Freshwater Sawfish Acoustic Tagging Monitoring (commenced 2016) • Barramundi External Tagging Monitoring (commenced 2017)
15.i	water levels in refuge pools/waterholes, upstream and downstream of the mine, including in the McArthur River diversion channel	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 29.b.	Refer McArthur River Freshwater Aquatic monitoring programs listed in item 15 above.
15.ii	water quality in refuge pools/waterholes in the Dry season	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 29.b.	Refer McArthur River Freshwater Aquatic monitoring programs listed in item 15 above.
15.iii	the health of aquatic biota in the McArthur River using non-lethal sampling methods.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 29.b.	Refer McArthur River Freshwater Aquatic monitoring programs listed in item 15 above.
15 continued	The monitoring program shall be prepared and implemented to the satisfaction of the Department of Environment and Natural Resources, and the Australian Government Department of the Environment and Energy.	3	Part Compliance (High)	Confirmed part condition in Authorisation 0059 dated 05May22 - Condition 29.c be implemented by the Operator. No reference in the Authorisation to DEPWS (formerly DENR) or the Australian Government DAWE (formerly the Department of Environment and Energy).	Note : No OFI recorded as the aquatic ecology Monitoring Program is implemented and is results reported annually to NT DEPWS and DCCEEW.
15 continued	The monitoring program shall be designed to integrate with a revised monitoring program provided for in Recommendation 27 and incorporated into the Adaptive Management Plan, to be developed in accordance with Recommendation 28	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 45.vi monitoring in accordance with relevant Recommendations in NT EPA Assessment report 86.	

Audit Period 1 May 2022 to 30 April 2023

NT EPA					
Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
15 continued	The results of the monitoring program are to be reported by the Proponent and audited by the Independent Monitor every three years. The monitoring report together with the Independent Monitor's audit report shall be made available to government agencies and the community on the Proponent's and relevant regulators' websites.	4	Full Compliance	While part of these requirements may be broadly captured and reviewed every three years under the Adaptive Management Plan auditing conditions 45 and 46, a review by the Independent Monitor every three years and making the report publicly available is not specifically stated in the Authorisation conditions. Operator reports annually specialist reviews relevant to aquatic ecosystems in the EMR. Independent Monitor Task 12 aquatic ecosystem audit conducted in 2022 and next audit planned for 2025.	Independent Monitor's aquatic ecosystem audit conducted in May 2022 with audit report intended to be made publicly available on DITT website. Note: No OFI recorded as three year Aquatic Ecosystems review by the Independent Monitor is specifically included by DITT in the Independent Monitor's scope of work.
	Approvals or decisions in relation to the Proposal, shall include conditions that require the Proponent to conduct all works in accordance with a valid Certificate issued in accordance with the Northern Territory Aboriginal Sacred Sites Act.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 30. Condition in Authorisation 0059 dated 05May22 - Condition 5 (broad requirement to meet all legislation).	Authorisation conditioned such that Operator must provide evidence of a valid AAPA certificate, as appropriate for proposed work. There are current AAPA certificates for current mining footprint but additional certificates will need to be obtained for additional disturbance. DITT not aware of any breaches.
	Prior to any approvals for the Proposal, the Proponent and the responsible Minister shall consult with the Minister for Tourism and Culture on an alternative design of the NOEF that would preserve archaeological site MRM4. Any alternative design of the NOEF must achieve the same environmental outcomes as the currently proposed NOEF, taking into consideration the recommendations in this report.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 31 Operator must not disturb or encroach upon archaeological site MRM4 until design of NOEF is agreed DITT advised no NOEF design updates occurred during the audit period.	-Works proposed in the 2020 MMP do not disturb or impact on MRM4. There is no development in or proposed in the MRM4 area. When appropriate DITT will facilitate consultation with the Minister for Arts, Culture and Heritage (also see NT EPA recommendation 18). Authorisation 0059 to require mining activities to avoid MRM4 whilst consultation occurs with the responsible NT agency (Minister for Arts, Culture and Heritage) to finalise an agreed NOEF design.
	Approvals or decisions in relation to the Proposal, shall include conditions that require the Proponent to demonstrate to the responsible Minister, and the AAPA or the Minister for Tourism and Culture (where relevant), that it has undertaken a thorough process to identify, inform and consult with the appropriate custodians and traditional owners with an interest in lands that would be or may be affected by the Proposal.			Confirmed condition in Authorisation 0059 dated 05May22 - Condition 32.	The Authorisation includes condition/s requiring Operator to demonstrate evidence of consultation goin forward.
		4	Full Compliance		
	Approvals and decisions in relation to the Proposal shall include conditions that require the Proponent to monitor sulphur dioxide within 1 km downwind of the NOEF, to the satisfaction of the NT EPA and relevant regulator. The objective of this monitoring program should be to identify any increase in sulphur dioxide emissions from the NOEF and any potential air quality risk to human health outside the MRM leases for all stages of the Proposal.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22- Condition 33. Note: the condition does not specify the location within 1km downwind of the NOEF but does require it at an appropriate location between NOEF and sensitive receptors determined in consultation with NT EPA.	AQMP submitted by MRM in Nov21 and was assessed by DITT as meeting requirements of conditions 33 34 and 35. OBS: DITT's response to Operator's submission of Updated Air Quality Management Plan (13 Nov 21) was unduly slow. SO ₂ monitoring was undertaken at the Mine at the SO2VANO1 and SOV2ILLO1 monitoring sites. EMR 2023 - Appendix F - Ambient Air Monitoring Report data indicates that there were no exceedances of the National Environmental Protection Measure (NEPM) guideline for hourly SO2 concentrations during the audit period.

Audit Period 1 May 2022 to 30 April 2023

NT EPA					
Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
19 continued	The monitoring program shall be reviewed in accordance with Recommendation 27 and incorporated into the Adaptive Management Plan, to be developed in accordance with Recommendation 28.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 44, synthesis of all environmental monitoring programs (Recommendation 27) and Condition 93 - Adaptive Management Plan (Recommendation 28).	
19 continued	The results of the monitoring program are to be reported by the Proponent to the relevant regulator and audited by the Independent Monitor every three years. The monitoring report together with the Independent Monitor's audit report shall be made available to government agencies, the Community Reference Group and publicly on the Proponent's and regulator's websites.	3	Part Compliance (High)	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 35.a, monitoring program results made available on the Operator's website. No reference to requirement for air quality management plan (sulphur dioxide) to be audited by the Independent Monitor. While part of these requirements may be broadly captured and reviewed every three years under the Adaptive Management Plan auditing conditions 45 and 46 making the report publicly available is not specifically stated in the Authorisation conditions. Operator reports annually specialist reviews relevant to air quality in the EMR. Independent Monitor's scope from DITT includes audit of specific monitoring programs including sulphur dioxide (air quality).	DITT advised condition met by AMP submitted by MRM in January 2020 and approved by the Minister November 2020. Air Quality Management Plan was reviewed by the Independent Monitor as part of the AMP review 15May20. The AMP submission received by DITT 13Nov21 (including AMP-D version 01Oct21) was assessed as meeting the Air Quality Management Plan Authorisation Schedule A Conditions 33, 34 and 35. Air Quality (sulphur dioxide) monitoring program review and audit is in Independent Monitor scope of work for 2023. Note: No OFI recorded as three year Air Quality (sulphur dioxide) review by the Independent Monitor is specifically included by DITT in the Independent Monitor's scope of work.
20	Approvals and decisions in relation to the Proposal shall include conditions that require the Proponent to:		-		
20.i	continue a monitoring program, to the satisfaction of the NT EPA on advice of the Chief Health Officer, to determine if aquatic fauna obtained from any reach of the McArthur River is safe to eat during all stages of the Proposal	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05June22 - Condition 36.adetermine if aquatic fauna is safe to eat.	The Aquatic Ecology Monitoring Program and Metals Lead in Fluvial Sediments and Aquatic Fauna is conducted and are reported annually in the EMR.
20.ii	publicly report the results of monitoring, including at appropriate locations in the region	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05June23 - Condition 36.cpublic reporting of aquatic fauna monitoring results	Conditions included in Authorisation 0059 address this NT EPA recommendation (Condition 36.c.), which require public reporting of the monitoring results, including at appropriate locations in the Borroloola region. Operator has a copy of 2022 EPBC Approval Compliance Report available on website, which refers to EPBC related aquatic ecology monitoring. DITT advised it will identify an appropriate medium for communicating the monitoring results. This may, for example, be achieved as part of addressing NT EPA recommendation 25, i.e. publishing via the DITT website and in hardcopy at various locations in the Borroloola community or engaging with the Community Reference Group. OBS: It may be of benefit to make publicly available the results of monitoring in relation to aquatic fauna obtained from the McArthur River, including at appropriate locations in the region, to communicate river health.

Audit Period 1 May 2022 to 30 April 2023

NT EPA Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
20.iii	maintain signage at waterways within the MRM site advising that fishing and harvesting of aquatic food species is prohibited, until the waterways recover and the risk of contamination from consumption of this aquatic fauna is negligible.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 36.d) and refers to condition 62. The wording on the signage differs from Conditions 62. b). wording requirement "fishing and harvesting of aquatic food species is prohibited", which is specific wording from the Chief Health Officer. Warning Signage Register 2019 provided by Operator showed photos of the "no unauthorised entry" wording on signage.	Letter from Operator (dated: 04Feb2015) to Chief Health Officer advising of the proposed wording to be used on signage. Not aware of any Chief Health Officer response. Operator to obtain agreement with NT EPA/Chief Health Officer that the alternative wording used on waterway signage "no unauthorised entry" at mining lease boundary is acceptable. Advised that signage erected at access point to mineral leases (refer Condition 62) is inspected annually by the Operator to ensure visibility and condition. Signs are replaced when they become damaged or no longer legible.
	Approvals and decisions in relation to the Proposal shall include conditions that require the Proponent to develop a non-lethal monitoring program for sawfish and from the results, define a specific (measurable and time-bound) threshold for a significant decline in sawfish movement (based on data) that would trigger investigation and implementation of management measures. This threshold is to be developed to the satisfaction of the Australian Government Department of the Environment and Energy and the Department of Environment and Natural Resources, within 12 months of authorisation of the Proposal.	3	Part Compliance (High)	requires non-lethal monitoring, setting performance indicators to abate a significant decline and trigger levels for investigation and implementation of management measures, within 24 months of the approval of the OMP.	Operator has actioned earlier than required by implementing sawfish transponder monitoring. Operator has established specific freshwater sawfish movement, navigating the McArthur River via acoustic receiver station, threshold trigger values in the 2022 AMP, Rev E, TARPs, Table 8. DITT advises 24 month timeframe is in recognition of adequate time to undertake a quality review including incorporating results from other relevant studies. Note: No OFI recorded as the development of non-lethal monitoring program for sawfish monitoring program, including trigger threshold for investigation and management measures was commenced in 2016 and is reported annually to regulators DEPAWs and DCCEEW.
	Approvals and decisions in relation to the Proposal shall contain conditions that require environmental objectives to be established and achieved in case the mine site enters into care and maintenance. Environmental objectives should be reviewed by the relevant Independent Panel/s and approved by the relevant regulator/s after consultation with the Community Reference Group, custodians and traditional owners.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 38.adevelop environmental objectives for a Care and Maintenance Plan	Operator future requirement, triggered by and within 6 months of the establishment of the Independent Panel(s) of Experts (Condition 21) for NOEF, TSF and Closure. DITT and the operator have established the Community Reference Group (NT EPA recommendation 26), to facilitate consultation with custodians and traditional owners to inform the development of the care and maintenance plan and independent panel (NT EPA recommendation 23). CRG inaugural meeting held on-site 27July23 for project familiarisation. OBS: The establishment of the Independent Panel/s and Community Reference Group has taken an unduly long time and consultation on environmental objectives for a Care and Maintenance Plan with CRG prior to regulator approval has been delayed.
23	Approvals and decisions in relation to the proposal will include conditions requiring the Proponent to provide funding to establish and operate a panel of independent experts to:	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 21.	Independent Panel of experts for closure, not yet established. Planning for independent expert panel establishment underway. Draft Terms of Reference (Closure Panel) were prepared in August 2022.

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NT EPA Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
23.i	review and advise on the development of closure and care and maintenance strategies for mine site domains, and the Proponent's trajectory towards achieving agreed closure objectives	4	Full Compliance	21, 38 and 39. Condition 38.a) requires Operator to develop environmental objectives for a Care and Maintenance Plan within 6 months of the establishment Independent Panel on closure. Condition 39.a) requires Operator to develop a Care and Maintenance Plan prior to 13 November 2025 (within 5 year of Authorisation of the	DITT, with support from the Operator, is managing the process to establish and operate an Independent Panels of experts, including developing Closure Panel a Terms of Reference (draft Closure Panel TOR dated August 2022) OBS: Independent Panel TOR for the NOEF and TSF were approved 12Dec22, however TOR for Independent Panel for Closure are currently in draft dated August 2022. It was advised the Independent Panel for Closure TOR was assessed as a lower priority due to later implementation. Operator future requirement to submit an updated Mine Closure Plan with each MMP from the date of authorisation of the OMP (Condition 96 - Mine Closure), which may occur in 2024, potentially earlier than the establishment of the Independent Closure Panel.
23.ii	review the risk of potential catastrophic failure of the mine levee wall and the McArthur River diversion channel in view of future closure objectives.	4	Full Compliance	No reference to catastrophic failure of mine levee wall and McArthur River diversion channel in the Authorisation under Care and Maintenance.	The Care and Maintenance Plan to be developed may consider the mine levee wall and the McArthur River diversion but there is no specific requirement in the Authorisation for this content. The Mine Closure Independent Panel Draft TOT dated August22 specifically mentions: provide advice regarding the risk of potential catastrophic failure of the mine levee wall ad the McArthur River Diversion Chanel in view of future closure objectives (Scope - Section 3.i. and Appendix A: Matters for consideration by the Mine Closure Panel b.) Note: No OFI recorded as there is a specific requirement for the Mine Closure Independent Panel to consider and provide advice regarding the potential catastrophic failure of the mine levee wall and the McArthur River Diversion Chanel is in the Draft ToR dated June 2022.
23 continued	The panel shall be formed:		-		
23.iii	with an independent chair, appointed by the responsible Minister in consultation with the Minister for Environment and Natural Resources	4	Full Compliance	The closure independent panel Draft TOR are dated August 2022 Reference to Independent Chair has been removed from Authorisation	Draft Terms of Reference for Mine Closure Independent Panel have been developed dated August 2022. Draft TOR Section 4 states the Mine Closure panel will be chaired by an independent closure expert appointed by the NT Minister for Mining in consultation with the NT Minister for Environment. No fixed timeline for establishment of the Mine Closure Independent Panel.
23.iv	on the advice of the relevant regulator/s and the Proponent.	4	Full Compliance		Draft Terms of Reference for Mine Closure Independent Panel have been developed dated August 2022 and circulated to relevant regulators. Note: Future audit task to check that consultation responses on the formation of the panel have been received from DITT, DEPAWS, DCCEEW and Operator (2024 audit).

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NT EPA	2022 to 30 April 2023				
Recommendation	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
No.					
23 continued	The panel shall conduct a rolling 3-5 year review of the mine closure plan to assess the trajectory of closure options for MRM site domains and provide a report to the relevant regulator and the Independent Monitor that is made available to the Proponent, government agencies, the Community Reference Group and the public.	3	Part Compliance (High)	96 and 97.b. No reference to rolling 3 to 5 year review, however there is a requirement to update the mine closure plan as closure concepts are developed. No reference to providing mine closure plan to Independent Monitor, CRG and the public. Note: a review of the Mine Closure Plan is part of the Independent Monitor's scope of work.	Draft Terms of Reference for Mine Closure Independent Panel have been developed dated August 2022 and The Draft MI Closure independent panel TOR Section 2 - Purpose states: The purpose of the Mine Closure Panel is to conduct a rolling 3-5 year review of the mine closure plan to assess the trajectory of closure options for MRM site domains and provide a report to the relevant regulator and the Independent Monitor that is made available to the Proponent, government agencies, the Community Reference Group and the public. Note: No OFI recorded as there is a specific Draft TOR requirement for the Mine Closure Independent Panel to conduct a rolling 3-5 year review of the mine closure plan to assess the trajectory of closure options and a report to the relevant regulators, Independent Monitor, CRG and the public.
23 continued	Terms of Reference for the panel shall set out the terms for roles and responsibilities, membership, timeframe for commencement and scope, reporting obligations and transparency and accountability. The Terms of Reference shall be finalised by the responsible Minister, in consultation with the Minister for Environment and Natural Resources acting on advice from the NT EPA, within 12 months of authorisation of the Proposal.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 21. Mine Closure Independent Panel Draft TOR dated August 2022. Reference to terms of reference requirements has been removed from Authorisation 13Nov21 and 18June 2021 and 05May22. No timeframe for finalisation of the terms of reference contained in the Authorisation. ToRs for Mine Closure Independent Panel includes references to roles, responsibilities, membership, scope, reporting, transparency and accountability.	TOR for Mine Closure Independent panel has not been finalised within 12 months of the approval of the OMP. However, Draft Closure Panel TOR prepared August 2022 for consultation with NT EPA.
23 continued	The structure of the panel and its Terms of Reference shall be reviewed by the Responsible Minister, in consultation with the Minister for Environment and Natural Resources every six years from the date the Terms of Reference are finalised.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 21. Mine Closure Independent panel Draft TOR, Section 7 - Period of Review states: the structure of the panel and its TOR shall be reviewed every six years for the date the TOR are finalised, or sooner, if required.	
24	An independent third-party assessment of the security that must be provided by the Proponent or Operator for rehabilitation of the Authorised activities at the McArthur River Mine site shall be conducted by a qualified person approved by the responsible Minister. The security amount shall be sufficient to secure the site in a manner that meets the NT EPA's overarching environmental outcome. The independently calculated amount and final amount of the security shall be published on the relevant regulator's website with any variation between the amounts explained.	4	Full Compliance	Note: the condition does not mention the security needing to be sufficient to secure the site in a manner that meets the NT EPA's overarching environmental outcome. DITT advises this is the role of DITT in administering the MMA and security amount is approved by the Minister. Independent Monitor sighted the security held as at 01August2023 published on the DITT website.	Operator nominated a third party assessor which has been approved by the Minister and accepted by the DITT. The third party review of the security was completed as part of the 2020 MMP approval and is required every three years thereafter. DITT advised the Independent Monitor that Northern Territory Government has committed to make mine security amounts publicly available. Currently the information published is the security amounts for major mines in the NT, including McArthur River Mine, with the individual mine's security amount held listed on the DITT's website. Note: No OFI prepared as DITT advised it is not appropriate to provide the details of each security assessment the on the Regulator's website or to explain any variation between the independently calculated and final security amount.

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NT EPA Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
24 continued	The security amount shall be reassessed every three years if an assessment of the security amount by the regulator has been undertaken during that time in accordance with the Authorisation for the McArthur River Mine.	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 40. DITT advised security assessment is currently provided annually as part of the Unplanned Closure Plan, supported by an independent report.	Operator future requirement for the security assessment to occur every three years if the security has been recalculated or adjusted.
25	The Mining Management Plan (overview and environmental management section) and the Authorisation for the McArthur River Mine Overburden Management Project shall be made available to the public on the relevant regulator's website and in hard copy at an appropriate location in Borroloola (e.g. Borroloola Public Library).	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 42. A public copy of the MMP with commercially sensitive information removed is available on DITT website (sighted 22Aug23).	. Triggered by 2020 MMP approval. DITT advised an MMP hard copy provided to Borroloola Library. Sighted copy of email 07Oct20 from DITT confirming Borroloola Community Library postal address to send MMP hardcopy.
26	Approvals and decisions in relation to the Proposal shall include conditions that require a Community Reference Group to be established that has the following roles:	4	Full Compliance	Confirmed condition in Authorisation 0059 dated 05May22 - Condition 43. Note : the subparts of this NT EPA recommendation are not stated in the 13Nov20 and 18Jun21 and 05May22Conditions and no longer states "in accordance with the relevant NT EPA Recommendation" but have been captured in CRG draft terms of reference, refer to 26.i. to 26.v. and 26. continued below.	CRG held inaugural meeting 27July23 at the Mine site. Primary purpose of first meeting was site familiarisation for CRG members. MRM CRG Terms of Reference 04Oct21, Version 1 are publicly available on the DITT website (checked 22Aug23). Draft terms of reference for the CRG (version 02 dated 28May21) prepared by DITT were endorsed by the NT EPA (letter dated 06Jun21) and were available on DITT website. Public advertising for CRG members nominations closed in 31Oct21 and provided the opportunity for stakeholders to present nominations. Nominations were presented to the Minister for approval (members and chairperson) and decision reach to enable CRG establishment in mid 2023.
26.i	communicate the mine's performance to the local and broader NT community	4	Full Compliance	Confirmed in CRG Draft Terms of Reference, 04Oct21, Version 1, Section 2 - Purpose, dot point No.1.	
26.ii	advise on the most appropriate method for the Proponent to report information that is required to be made publicly available	4	Full Compliance	Confirmed in CRG Draft Terms of Reference, 04Oct21, Version 1, - Section 2. Purpose, dot point No.2.	
26.iii	provide a structured forum for review and discussion in setting environmental objectives for adaptive management, operation, care and maintenance, mine closure and the evaluation and costing of mine closure options	4	Full Compliance	Confirmed in CRG Draft Terms of Reference, 04Oct21, Version 1, - Section 2. Purpose, dot point No.3.	
26.iv	provide a forum for discussing economic and social post-mining impacts	4	Full Compliance	Confirmed in CRG Draft Terms of Reference, 04Oct21, Version 1, - Section 2. Purpose, dot point No.4.	
26.v	translate technical information into communication that is readily understood by the community, clear statements of outcomes to be achieved and progress in achieving them for both operational and closure matters.	4	Full Compliance	Confirmed in CRG Draft Terms of Reference, 04Oct21, Version 1, - Section 2. Purpose, dot point No.5.	
26 continued	The Group shall be chaired by an independent person appointed by government, who is held in high regard in civic life and has expertise in taking the community interests into account and experience in the position of chair.	4	Full Compliance	Confirmed in CRG Draft Terms of Reference, 04Oct21, Version 1, - Section 4. Membership, paragraph No.1.	
26 continued	The Group shall comprise members who represent the local community and broader Northern Territory community, as well as key stakeholders, particularly custodians and Traditional Owners.	4	Full Compliance	Confirmed in CRG Draft Terms of Reference, 04Oct21, Version 1, - Section 4. Membership, paragraph No.2.	

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NT EPA Recommendation No.	NT EPA Recommendation	Score	Compliance Level	2023 Evidence	2023 Comments
26 continued	A Terms of Reference for the Group shall be developed to the satisfaction of the NT EPA and agreed by the relevant regulator/s and the Department of the Chief Minister. Details regarding the establishment of the Community Reference Group, including roles and responsibilities, membership, timeframe for commencement and scope, reporting obligations and accountability should be decided within 12 months of all approvals being received for the Proposal.	4	Full Compliance	Draft terms of reference for the CRG (version 02 dated 28May21) prepared by DITT were endorsed by the NT EPA 31May21 (letter dated 06Jun21)> Final version of the TOR 04Oct21, Version 1 is available on DITT website (checked 22Aug23). No reference to a timeframe for the establishment of the CRG in the Authorisation 13 Nov2020.	
26 continued	The structure of the Group and its Terms of Reference shall be reviewed every six years from the date the Terms of Reference are finalised.	4	Full Compliance	Confirmed in CRG Draft Terms of Reference, 04Oct21, Version 1, - Section 9. Period of review, paragraph No.1.	
27	Approvals and decisions in relation to the Proposal shall include conditions that require the Proponent to conduct a complete review and synthesis of all monitoring programs that assess impacts of mining activities on the environmental values and beneficial uses of the McArthur River, in accordance with the NT EPA's overarching environmental outcome in Recommendation 3. The revised monitoring program shall be reviewed by the Independent Panel/s and Independent Monitor within nine months of authorisation of the Proposal, and then approved by the relevant regulator/s. The revised monitoring program shall be incorporated into the Adaptive Management Plan.	3	Part Compliance (High)	The Condition 44 does not require the review by the Independent Panel/s and Independent Monitor within nine months of authorisation of the Proposal, instead it states within 18 months of the authorisation. No reference to review by the Independent Panel or the Independent Monitor. However, revised monitoring program is required to be incorporated into the AMP which as per Condition 45.b). must be reviewed by the Independent Monitor and updated with inputs from the CRG. The 2022 EMR provides a more detailed Source-Path-Receptor model discussion considered against the annual monitoring results to provide a overall review and synthesis of monitoring programs.	The 2021 EMR provides a high level synthesis of all environmental monitoring programs implemented at the Mine, including water monitoring programs. Trend analysis was undertaken, considering key elements of the source-pathway-receptor conceptual site model. Operator previously provided revised monitoring plan/s for surface water, groundwater, air quality and sediment as part of the 2020 MMP for assessment under the MMA. The Independent Monitor conducte a review of the Aquatic Ecology Program and Air and Water Quality Monitoring Programs (Task 12) and the AMP (Task 8) to which all monitoring programs contribute. The Independent Monitor's Task 12 and related reviews are deemed to meet the requirement for independent review. DITT advised 18 month timeframe is in recognition of adequate time to undertake a quality review including incorporating results from other relevant studies. This condition is marked as complete in the Authorisation dated 17May23. OFI: DITT to incorporate a mechanism for the revised monitoring program (assume Water Monitoring Program) to be reviewed by the Independent Panel(s) and Independent Monitor and then be approved by the relevant regulators, e.g. DITT.



Appendix E River Health Review



Table E-1: Monitoring Program Outcomes for Protection of the McArthur River Beneficial Uses and Community Values from Mining Impacts

Monitoring Program	2022 - 2023	Key Conclusions
Freshwater Macroinvertebrate Monitoring	This monitoring program has been developed and refined since 2008 to allow for a quantifiable and site-specific assessment to detect statistically significant differences in freshwater aquatic macroinvertebrate communities resulting from Mine activities.	The Independent Monitor agrees with the conclusions of the Operator's external expert's assessment that it indicates no statistically significant differences in macroinvertebrate assemblages in sites upstream and downstream of the Mine's operations for the monitoring period encompassing 2022 - 2023.
Diversity and Abundance of Freshwater Aquatic Fauna	This monitoring program has been developed and refined since 2006 to allow for a quantifiable and site-specific assessment to detect statistically significant differences in freshwater aquatic fauna resulting from Mine activities.	The monitoring program appears to have been implemented in accordance with the approved MMP. The Independent Monitor agrees with the conclusions of the Operator's external expert's assessment that there has been no observable change in species diversity and abundance outside the range of natural variance (largely driven by inter-year seasonal flow variation).
Metals in Freshwater Aquatic Fauna	This monitoring program has been developed and refined since 2005. Significant improvements to the monitoring program were made in 2009 to allow species specific comparisons between sites. In 2014, larger species (more likely to be consumed by people) were included in the monitoring program. These and other improvements have increased the appropriateness and robustness of the program.	The Independent Monitor agrees with the conclusions of the Operator's external expert's assessment that the data suggests little measurable effect on tissue metal concentrations in the McArthur River and downstream environments. The program is suitably designed to detect any potential metal tissue concentration elevations in the future. Past detection of elevated metal tissue concentrations has informed management actions.



Table E-2: Monitoring Program Outcomes for Facilitation of Development of the Ecosystems and Their Functions Along the McArthur River Diversion Channel for Terrestrial and Aquatic Flora and Fauna

Monitoring Program	2022 – 2023	Key Conclusions
Freshwater Macroinvertebrate Monitoring	This monitoring program has been developed and refined since 2008 to monitor the development of instream habitats in the McArthur River and Barney Creek diversion channels. The level of sampling and sampling sites selected were appropriate for meeting the monitoring objective to assess development of macroinvertebrate assemblages within the diversion channels.	The monitoring program appears to have been implemented in accordance with the approved MMP. The Independent Monitor agrees with the conclusions of the Operator's external expert's assessment, that the results suggest that macroinvertebrate assemblages riffle sites along the McArthur River Diversion Channel appeared to have resembled those in reference sites within two years of channel operation, and that edge habitats were becoming more similar over time despite the deviation in the 2022-2023 sampling period.
Diversity and Abundance of Freshwater Aquatic Fauna	Components of this monitoring program have been developed and refined since 2008 to monitor changes in aquatic fauna in the diversion channels, monitor fish passage success through the McArthur River Diversion Channel, and assess the effectiveness of adding woody debris to the McArthur River Diversion Channel as a key rehabilitation strategy.	The monitoring program appears to have been implemented in accordance with the approved MMP. The Independent Monitor agrees with the conclusions of the Operator's external expert's assessment that there has been no observable change in species assemblages related to mining activities. Fish assemblages in complex habitat (i.e., where woody debris has been introduced) were comparable with naturally complex habitat upstream and downstream of the Diversion Channel.
Freshwater Sawfish and Barramundi Acoustic Monitoring	Since 2011, tagging has focused on migratory species, notably barramundi and sawfish. This included dart tags, and for specimens captured at locations whose future movements were likely to inform the objectives of the acoustic monitoring program, the specimens were fitted with acoustic tags.	Five individuals recorded as passing through the diversion channel since 2017. This supports the assertion that fish passage for this species is not impaired and exceeds the minimum requirement of demonstrating passage of sawfish through the Diversion Channel once every five years.



Monitoring Program	2022 – 2023	Key Conclusions
Metals in Freshwater Aquatic Fauna	This monitoring program has been developed and refined since 2005. Significant improvements to the monitoring program were made in 2009 to allow species specific comparisons between sites. In 2014, larger species (more likely to be consumed by people) were included in the monitoring program. These and other improvements have increased the appropriateness and robustness of the program.	The Independent Monitor agrees with the conclusions of the Operator's external expert's assessment that the data suggests little measurable effect on tissue metal concentrations in the McArthur River and downstream environments. The program is suitably designed to detect any potential metal tissue concentration elevations in the future. Past detection of elevated metal tissue concentrations has informed management actions.