



MT ARTHUR COAL MINE

Independent Environmental Audit 2020

Prepared for:
Hunter Valley Energy Coal Pty Ltd
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January 2021

PREPARED BY:



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BASIS OF REPORT

This report has been prepared by Integrated Environmental Management Australia (IEMA) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement the Client. Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

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EXECUTIVE SUMMARY

This Independent Environmental Audit (IEA) covers the Mt Arthur Coal Complex. The IEA period is 1 July 2017 to 30 June 2020. This is the three - year period based on the date of the previous IEA. The Department of Planning Industry and Environment (DPIE) endorsed the following IEA team in the letter dated 12 June 2020:

- Chris Jones – (Integrated Environmental Management Australia - IEMA) - Lead Auditor and Surface Water Specialist;
- Nathan Archer – (SLR Consulting Australia Pty Ltd - SLR) Assistant Auditor and Noise/Blasting Specialist;
- Ali Naghizadeh (SLR) – Air Quality Specialist;
- Clayton Richards (Mine Soils) – Rehabilitation Specialist; and

Katarina David (Independent Consultant) – Groundwater

The IEA covered the requirements of Schedule 5 Condition 9 of the Project Approval (PA 09-0062).

The IEA period is 1 July 2017 to 30 June 2020. This is the three - year period based on the date of the previous IEA. The IEA also included a series of specialists including surface water, groundwater, noise/blast, air and rehabilitation.

The IEA generally identified a high level of compliance with no high or medium risks identified during the IEA. Some issues such as 'air quality' caused several non – compliances. In summary the following non – compliances were observed:

- There were eight low risk non – compliances and four administrative non – compliances for the Project Approval;
- There were three low risk non – compliances and four administrative non – compliances for the Environment Protection Licence;
- There were four low risk non – compliances and one administrative non – compliances for the Mitigation Measures and Management (Section 4) from Mt Arthur Coal Open Cut Modification - Environmental Assessment 2013;

Key findings and recommendations are outlined in **Section 6 and 7**.

The site visit concluded that the MAC Mine is generally compliant and well maintained, with highlights including:

- There has been a recent increase in rehabilitation and closure targets;
- Additional funding has been provided for biodiversity management;
- Sophisticated real time air quality and noise management system;
- The site has generally been compliant with key monitoring criteria;
- There has been a continuity of environmental staff during the IEA period. The IEA team is satisfied the site is sufficiently resourced in regard to environmental management;
- There was a very high degree of participation from the MAC team and contractors during this IEA which illustrates the importance of environment and community compliance management at the site;
- The annual reporting (Annual Reviews) have generally been to a high standard; and

- The field performance of the site was excellent. This included no major dust issues in the field as well as excellent erosion and sediment control management.

1 INTRODUCTION

1.1 Background

The Mt Arthur Coal Complex, located approximately five kilometres south west of Muswellbrook in the Upper Hunter Valley in New South Wales (NSW) includes the Mt Arthur Coal Open Cut, the Mt Arthur Coal Underground Project (no underground operations are currently taking place), Coal Handling and Preparation Plant (CHPP), rail loop and rail load out. This Independent Environmental Audit (IEA) only covers the Project Approval area under PA09_0062 MOD1 for the Mt Arthur Coal Mine – Open Cut Consolidation Project.

The Mt Arthur Coal Mine is an open cut coal mine operating with trucks and shovels to extract up to 32Mtpa of ROM coal. The majority of coal is crushed and washed prior to sale on both export and domestic markets. A minor proportion of coal bypasses washing, for domestic contracts was supplied until 2019. Mt Arthur Coal (MAC) has development consent approval to operate until 30 June 2026.

In 2013, MAC lodged an application to modify the Project Approval 09_0062 under section 75W of the EP&A Act (the Mt Arthur Coal Open Cut Modification [the Modification]). The application was approved by the Planning Assessment Commission (as delegate of the Minister for Planning) on 26 September 2014 (Project Approval 09_0062 MOD 1). The Modification includes the continuation of open cut mining operations at the MAC Mine for an additional operational life of four years from 2022 to 2026 at the maximum rate of 32 Mtpa, an increase in open cut disturbance areas, additional overburden emplacement areas, duplication of the existing rail loop and various additional infrastructure changes.

Key findings from this IEA are outlined in **Section 6 and 7** of this report. **Section 8** summarises the overall performance of the site.

Figure 1 shows the leases, approved disturbance boundary and offset area.

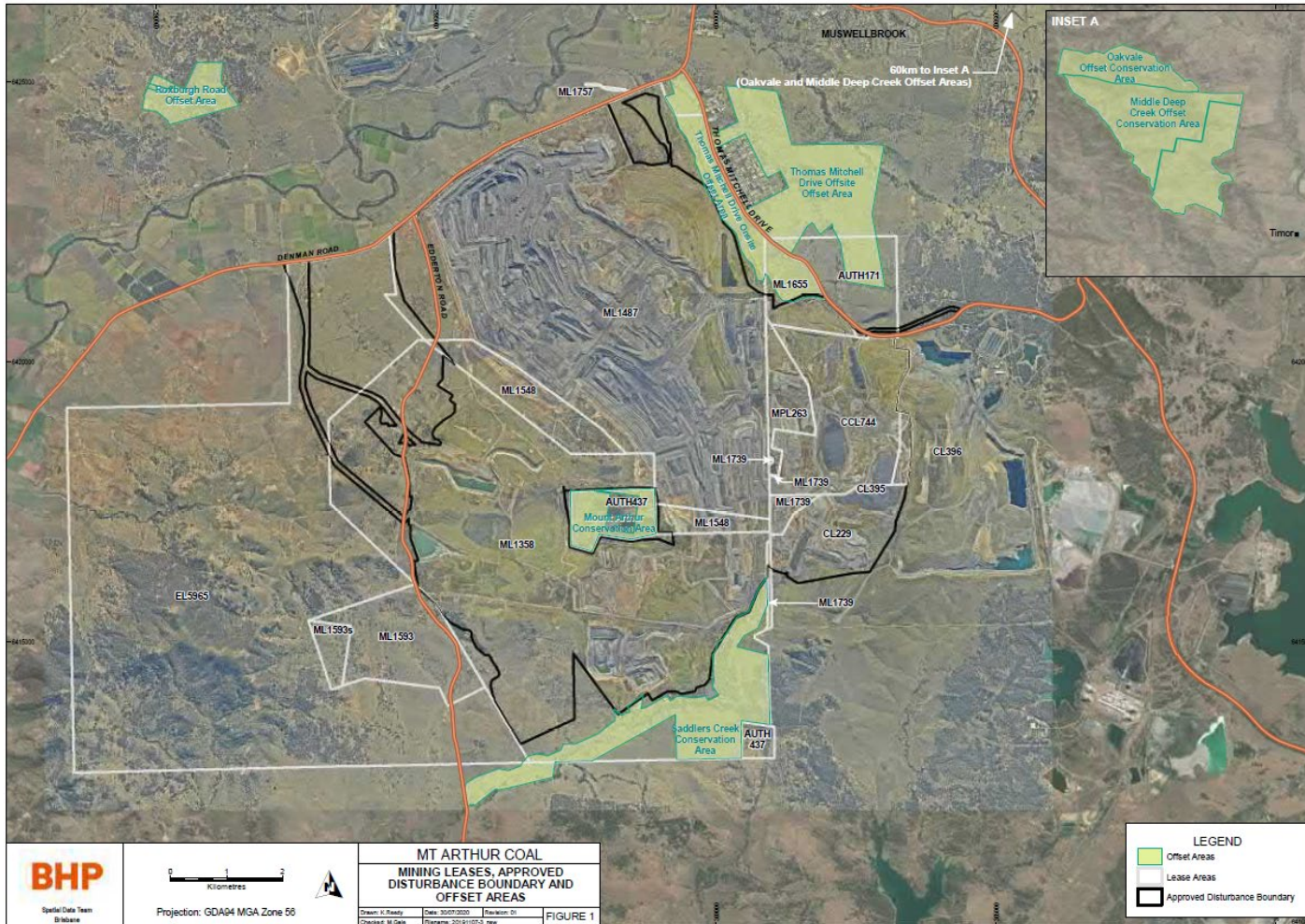


Figure 1 MAC – Mining Leases, Approved Disturbance Boundary and Offset Areas (Source: 2020 Annual Review)

1.2 IEA Scope

The IEA covered the following requirements of Schedule 5 Condition 9 of the Project Approval (PA 09-0062).

- a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;*
- b) include consultation with the relevant agencies;*
- c) assess the environmental performance of the project and assess whether it is complying with the requirements in the Project Approval (09_0062) and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);*
- d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and*
- e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.*

The IEA period is 1 July 2017 to 30 June 2020. This is the three - year period based on the date of the previous IEA. DPIE endorsed the following IEA team in the letter dated 12 June 2020:

- Chris Jones – (Integrated Environmental Management Australia - IEMA) - Lead Auditor and Surface Water Specialist;
- Nathan Archer – (SLR Consulting Australia Pty Ltd - SLR) Assistant Auditor and Noise/Blasting Specialist;
- Ali Naghizadeh (SLR) – Air Quality Specialist;
- Clayton Richards (Mine Soils) – Rehabilitation Specialist; and
- Katarina David (Independent Consultant) – Groundwater.

MAC requested an extension to the submission time of the IEA. In a letter from DPIE dated 6 July 2020, DPIE stated:

The Department has considered the request for an extension to the submission date of the IEA and RAR 2020, and accordingly, the Planning Secretary has agreed to a revised submission date of 12 weeks from the date of completion of the audit. Note that the completion date of the audit is the last day of the site audit component of the IEA.

The last day of the site component of the IEA was 6 October 2020. The original due date from DPIE was by 29 December 2020. However following liaison between MAC and DPIE, an extension was granted to 22 January 2021.

The IEA assessed the following approvals and documentation:

- Project Approval PA 09-0062 (including management plans);
- Key Environmental Assessment Commitments - Mt Arthur Coal Open Cut Modification - Environmental Assessment 2013 – Section 4 Environmental Assessment ;
- EPL 11457;
- MLs (CL 396, CL 744, ML 1358, ML 1487, ML 1548, ML 1593, ML 1655, ML 1739, ML 1757, ML 263);

-
- Water Licences (Review of extraction volumes only); and
 - Status of previous IEA recommendations.

1.3 Key Site Contacts

The main IEA contact for MAC is Lisa Richards. See contact details below.

Lisa Richards

Specialist Environment – Business Partnership

Mt Arthur Coal / NSW Energy Coal

lisa.richards@bhp.com

There were several other MAC personnel that contributed to the IEA with these included in **Section 1.4**.

1.4 IEA Methodology

A series of environmental consultants were involved in this IEA and endorsed by the DPIE, including:

- Chris Jones – (Integrated Environmental Management Australia - IEMA) Lead Auditor and Surface Water Specialist;
- Nathan Archer – (SLR Consulting Australia Pty Ltd - SLR) Assistant Auditor and Noise/Blasting Specialist;
- Ali Naghizadeh (SLR) – Air Quality Specialist;
- Clayton Richards (Mine Soils) – Rehabilitation Specialist; and
- Katarina David (Independent Consultant) – Groundwater.

The site component of the IEA occurred on 29th and 30th September 2020, and 6th of October 2020.

- Chris Jones was present onsite for Days 1-3, Nathan Archer was present onsite for Days 1 and 2 and Clayton Richards was present onsite for Day 1 only. Ali Naghizadeh and Katarina David assessed with a review of desktop information.
- The IEA team are independent of MAC as defined under Section 3.3 of the Department of Planning, Industry and Environment's (DPIE) *Independent Environmental Audit Guidelines* (October 2015).
- Information was provided by MAC prior to during and following the IEA. The IEA Team also sourced a large amount of information from the MAC website.

The methodology for the IEA consisted of the following key steps:

- Introductory and close out meetings;
- Reviewing key documents provided by MAC prior to the Audit;
- Consultation with relevant government agencies as per the IEA Guideline requirements prior to the site component;

- Site component of the IEA, included inspections and discussions with key MAC personnel;
- Review of additional relevant documentation obtained while onsite during the inspection or provided by MAC after the site inspection;
- Client review and comment on the draft IEA report;
- Photographs taken during the site inspection are included in **Appendix A**. A large amount of evidence was viewed and collected as part of the IEA, including monitoring records, reports, and correspondence. While this key evidence has been referenced in **Section 2**, it has not been attached to this IEA report;
- The IEA has been completed as per the *Independent Environmental Audit Guidelines* (DPIE October 2015); and
- The IEA team assessed the approvals and documentation outlined in **Section 4**.

1.4.1 Key Meetings and Attendees

Introductory and close out meetings were held for the IEA. At the opening meeting introductions were made by each of the meeting attendees and MAC personnel provided background details regarding the site to the IEA team. During the close out meeting a general discussion about compliance and areas for improvement was undertaken. **Table 1** lists those present at these meetings.

Table 1 - Meeting Attendees

Name	Role and Company
Opening Meeting	
Chris Jones	IEMA Lead Auditor and Surface Water Specialist
Nathan Archer	SLR Assistant Auditor and Noise/Blasting Specialist
Clayton Richards	Mine Soils Rehabilitation Specialist
Kalutwa Chizema	MAC – Manager Production
Jimmy Nixon	MAC – Acting HSE Superintendent
Lisa Richards	MAC – Specialist Environment
Phoebe Thomas	MAC - Acting HSE Superintendent
Jono Deacon	MAC – Specialist Environment (Rehabilitation)
Chloe Christensen	MAC – Specialist Environment
Aimee Bennett	MAC – Specialist Environment
Community and Approvals Discussions	
Sarah Bailey	MAC – Principal Approvals
Chris Jones	IEMA Lead Auditor and Surface Water Specialist
Lisa Richards	MAC – Specialist Environment
Rehabilitation Discussions	
Chris Jones	IEMA Lead Auditor and Surface Water Specialist
Clayton Richards	Mine Soils Rehabilitation Specialist (Day 1 only)
Jono Deacon	MAC – Specialist Environment (Rehabilitation)
Luke Neil	MAC – Principal Environment
Blasting Discussions	
Chris Jones	IEMA Lead Auditor and Surface Water Specialist

Name	Role and Company
Nathan Archer	SLR Assistant Auditor and Noise/Blasting Specialist
Lisa Richards	MAC – Specialist Environment
Chloe Christensen	MAC – Specialist Environment
Will Ringland	MAC – Superintendent Drill & Blast
Angus Archibald	MAC - Specialist Mine Planning – Drill and Blast
Jesse Vinson	MAC - Senior Mining Engineer – Design / Drill & Blast
Water Management Discussions	
Chris Jones	IEMA Lead Auditor and Surface Water Specialist
Nathan Archer	SLR Assistant Auditor and Noise/Blasting Specialist
Lisa Richards	MAC – Specialist Environment
Chloe Christensen	MAC – Specialist Environment
Stephen Nicol	MAC -Services 1 Supervisor
Brendan Johnson	MAC - Principal Governance & Tech Stewardship Dams
Harry McCullagh	MAC -Specialist Hydrology, Site Water Planning
Air Quality Discussions	
Chris Jones	IEMA Lead Auditor and Surface Water Specialist
Nathan Archer	SLR Assistant Auditor and Noise/Blasting Specialist
Lisa Richards	MAC – Specialist Environment
Chloe Christensen	MAC – Specialist Environment
Chris Shipp	MAC – Supervisor Statutory Compliance (OCE)
Noise Discussions	
Chris Jones	IEMA Lead Auditor and Surface Water Specialist
Nathan Archer	SLR Assistant Auditor and Noise/Blasting Specialist
Lisa Richards	MAC – Specialist Environment
Chloe Christensen	MAC – Specialist Environment
Sean Moylan	MAC Maintenance Planner
Community Discussions	
Chris Jones	IEMA Lead Auditor and Surface Water Specialist
Nathan Archer	SLR Assistant Auditor and Noise/Blasting Specialist
Lisa Richards	MAC – Specialist Environment
Chloe Christensen	MAC – Specialist Environment
Leah Scheepers	MAC - Specialist Social Value Programs, Community
Kim Carlson	MAC -Specialist Community
Andrew Marsh	MAC - Corporate Affairs
Thiess Area	
Chris Jones	IEMA Lead Auditor and Surface Water Specialist
Nathan Archer	SLR Assistant Auditor and Noise/Blasting Specialist
Lisa Richards	MAC – Specialist Environment
Achleitner, Jurgen	MAC - Superintendent Contract Mining

1.5 Consultation Requirements

Table 2 outlines the stakeholder consultation completed for the IEA, undertaken in accordance with the IEA Guidelines.

Table 2 Stakeholder Consultation for the IEA

Regulatory Authority	Contact Details	Comment from IEA Team/Stakeholder	Audit Team Response
DPIE	Joel Curran Senior Compliance Officer Planning & Assessment Department of Planning, Industry and Environment T02 4904 2702 E joel.curran@planning.nsw.gov.au	Email to DPIE on 27 August, 2020. Response below from DPIE. A focus on test results, adequacy of monitoring programs and compliance for ground water and surface water would be appreciated.	These are covered by this IEA.
Environments Protection Authority (EPA)	Mark Hartwell Unit Head Operations – Hunter Mark.Hartwell@epa.nsw.gov.au info@environment.nsw.gov.au	Email to EPA on 27 August, 2020. No response provided.	Nil
Department of Environment, Energy and Science	info@environment.nsw.gov.au	Email to the DEES on 27 August, 2020. No response provided.	Nil
Department of Planning and Environment – Resources Regulator (DPE-RR)	Jenn Warner Inspector Environment (Northern) Resources Regulator Department of Planning, Industry and Environment T 02 40636668 E jenn.warner@planning.nsw.gov.au	<ol style="list-style-type: none"> 1. Review relevant mining leases and exploration licences as agreed with Resources Regulator; 2. Undertake an assessment of compliance against the conditions of title related to environmental management; 3. Verify that there is a current Mining Operations Plan (MOP) in place and it has been approved by the Regulator – review compliance against any conditions of approval of the MOP; 4. Undertake a critical review of the MOP, including an assessment of its compatibility with the description of operations contained in the planning approval. In particular: 	<ol style="list-style-type: none"> 1. Covered by this IEA; 2. Covered by this IEA; 3. This is included under Schedule 3 Condition 5. The RMP covers the Project Approval requirements and the MOP Guideline requirements. The site has a high level of compliance with the RMP; 4. The information within the RMP document is generally consistent with the Project Approval and RMP Guideline requirements. Additional rehabilitation re-working is required in some sections of the site. Completion criteria are

Regulatory Authority	Contact Details	Comment from IEA Team/Stakeholder	Audit Team Response
		<ul style="list-style-type: none"> - Review the Rehabilitation Strategy as outlined in the MOP to determine if it is consistent with the Project Approval in terms of progressive rehabilitation schedule; and proposed final land use(s) - Review the rehabilitation objectives and completion criteria as outlined in the MOP to determine if they have been developed in accordance with the proposed final land use(s) as outlined in the Project Approval; <ol style="list-style-type: none"> 5. Review the development and implementation of any rehabilitation monitoring programs to assess performance against the nominated objectives and completion criteria – verified by reviewing monitoring reports and rehabilitation inspection records; 6. Determine if a rehabilitation care and maintenance program has been developed and implemented based on the outcomes of monitoring program – verified by reviewing Annual Rehabilitation Programs or similar documentation; 7. Confirm that mining operations are being conducted in accordance with the approved MOP (production, mining sequence etc.), including within the designated MOP approval boundary – to be verified by site plans and site inspection; 8. Confirm that rehabilitation progress is consistent with the approved MOP as verified by site plans and a site inspection. This should include an evaluation against rehabilitation targets and whether the final landform is being developed in accordance with conceptual final landform in the Project Approval; and 	<p>included in the RMP as per the guideline requirement;</p> <ol style="list-style-type: none"> 5. The monitoring programs have been reviewed as part of this IEA. The monitoring program is required to continue and appears adequate; 6. Additional re-working of some rehabilitation areas is required; 7. Mining operations were generally completed in accordance with the RMP. There was an issue of minor clearing beyond the approved disturbance boundary, which is covered under Schedule 3 Condition 40 of the Project Approval; 8. Rehabilitation areas (ha) completed are ahead of schedule for the IEA period according to the Annual Reviews 2018, 2019 & 2020. It is noted that greater areas of rehabilitation are proposed in the coming years; and 9. There have been areas of rehabilitation that require re-work. These are included in the Rehabilitation specialist report.

Regulatory Authority	Contact Details	Comment from IEA Team/Stakeholder	Audit Team Response
		9. Based on a visual inspection, determine if there are any rehabilitation areas that appear to have failed or that have incurred an issue that may result in a delay in achieving the successful rehabilitation outcomes.	
Natural Resources Access Regulator	Ellie Randall Water Regulation Officer Natural Resources Access Regulator Water Regulation (East) T: +61 2 4275 9308 F: +61 2 4224 9740 E: ellie.randall@nrar.nsw.gov.au	Response provided by Ellie Randall on 27 August 2020. 1. Review of the development consent and compare to relevant management plans (Water/Groundwater Management Plans); 2. Review of Annual Reviews/Annual Return 3. Review of Water Access Licenses, Entitlements and compare to use. 4. Review of any incidents and reporting (i.e. was NRAR notified).	1. Noted, covered in this IEA; 2. Noted, covered in this IEA; 3. The IEA has assessed the extraction volumes vs entitlements, but not all conditions of the Water Access Licences (see Section 4.6); and 4. Incidents are reviewed as part of the IEA.
Muswellbrook Shire Council	Sharon Pope Assistant Director Environment and Community Services P: (02) 6549 3868 F: (02) 6549 3701 Sharon.Pope@muswellbrook.nsw.gov.au	Response provided by Sharon Pope on 2 September 2020. 1. Dust and rehabilitation were the main matters of concern; 2. Dust management including high dumps. It was recommended that the IEA should review and report on the temporary dust suppression activities that occur in disturbed areas that are not scheduled for rehabilitation at this time; 3. Review of erosion, including erosion management in the longterm final landform; and 4. Review if there is a correlation on the number of earthquakes registered and determine if there is any correlation with blast locations on the mine site (i.e. are blasts adjoining a particular fault in the mine site possibly triggering earthquakes?)	1. There have been some dust issues at site with this noted in the report in Section 5.3 and 7. It was however noted that dust management was of a high standard during the IEA inspection; 2. Temporary dust management (eg. Use of water trucks) was undertaken during the site inspection. Evidence of progressive rehabilitation; 3. Noted. There are areas of improvement required in rehabilitation areas, with Appendix C. General observation and recommendations for rehabilitation are also included in Section 6 and 7; and 4. As discussed in the email from Chris Jones (IEMA) to Sharon Pope (Council) on 3 September 2020, that the earthquake query would be outside the Audit scope. Sharon Pope responded that Council may separately request investigation of this issue in the future.

Regulatory Authority	Contact Details	Comment from IEA Team/Stakeholder	Audit Team Response
Community Consultative Committee (CCC) Chairperson	Wej Paradise w.paradice@icloud.com 0418 680 616	Email to CCC Chairperson on 27 August, 2020. No response provided.	Nil

1.6 Statement of Independence

We can confirm independence based on the following:

- No one from the IEA team is related to any proponent, owner, operator or other entity involved in the delivery of the project. Such a relationship includes that of employer/employee, a business partnership, sharing a common employer, a contractual arrangement outside an Independent Audit, or that of a spouse, partner, sibling, parent, or child;
- No one from the IEA team has any pecuniary interest in the project, proponent or related entities. Such an interest includes where there is a reasonable likelihood or expectation of financial gain (other than being reimbursed for performing the Audit) or loss to the auditor, or their spouse, partner, sibling, parent, or child;
- No one from the IEA team have provided services (not including independent reviews or auditing) to the current project with the result that the audit work performed by themselves or their company, except as otherwise declared to the Department prior to the audit;
- No one from the IEA team is an Environmental Representative for the Project; and
- No one from the proposed IEA team can or has accepted any inducement, commission, gift or any other benefit from auditee organisations, their employees or any interested party, or knowingly allow colleagues to do so.

2 DOCUMENTS REVIEWED AND REFERENCED

Key documentation reviewed as part of the IEA includes:

- Project Approval PA 09-0062 (including management plans);
- Voluntary Planning Agreement;
- EPL 11457;
- MLs (CL 396, CL 744, ML 1358, ML 1487, ML 1548, ML 1593, ML 1655, ML 1739, ML 1757, ML 263);
- Water Balance Spreadsheets;
- Training and Inductions;
- Visual Mitigation Assessment Reports (2018-2020);
- Water Licences (Review of extraction volumes);
- Annual Reviews – FY 2018, 2019 and 2020;
- Monitoring results for meteorological, noise, air, water and blasting – including real time results;
- Rehabilitation Monitoring Reports;
- Spontaneous Combustion Monitoring Reports – 2017-2020;
- Transport Summary Spreadsheet;
- Environmental Management Plans and consultation – as per approval conditions;
- Mining Operations Plans/ Rehabilitation Management Plans (MOPs/ RMPs);
- Annual Returns – across the IEA period;
- Complaints log;
- Group Rehabilitation Cost Estimate Security - evidence
- Evidence of maintenance and calibration;
- CCC Meeting Minutes – across the IEA period; and
- Key consultation with government – including consultation and approval letters.





3 ASSESSMENT OF COMPLIANCE

The terms used in the IEA to describe the level of compliance of the site with the relevant approval documentation are outlined in **Table 3** and **Table 4**. These are requirements of the DPIE's *Independent Environmental Audit Guidelines* (October 2015).

Table 3 Compliance Assessment Criteria

Assessment	Criteria
Compliant	Where the Auditor has collected sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the Audit.
Not Verified	Where the Auditor has not been able to collect sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the Audit. In the absence of sufficient verification, the Auditor may in some instances be able to verify by other means (visual inspection, personal communication, etc.) that a requirement has been met. In such a situation, the requirement should still be assessed as not verified. However, the Auditor could note in the report that they have no reasons to believe that the operation is non - compliant with that requirement.
Non - Complaint	Where the Auditor has collected sufficient verifiable evidence to demonstrate that the intent of one or more specific elements of the regulatory approval have not been complied with within the scope of the Audit.
Administrative Non - Compliance	A technical non - compliance with a regulatory approval that would not impact on performance and that is considered minor in nature (e.g. report submitted but not on the due date, failed monitor or late monitoring session). This would not apply to performance-related aspects (e.g. exceedance of a noise limit) or where a requirement had not been met at all (e.g. noise management plan not prepared and submitted for approval).
Not triggered	A regulatory approval requirement has an activation or timing trigger that had not been met at the time of the Audit inspection; therefore, a determination of compliance could not be made.
Observation	Observations are recorded where the Audit identified issues of concern which do not strictly relate to the scope of the Audit or assessment of compliance. Further observations are considered to be indicators of potential non - compliances or areas where performance may be improved.
Note	A statement or fact, where no assessment of compliance is required.

Table 4 Risk Levels for Non - Compliances

Risk Level	Colour Code	Description
High		Non - compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence.
Medium		Non - compliance with: <ul style="list-style-type: none"> • Potential for serious environmental consequences, but is unlikely to occur; or • Potential for moderate environmental consequences but is likely to occur.
Low		Non - compliance with: <ul style="list-style-type: none"> • Potential for moderate environmental consequences, but is unlikely to occur; or • Potential for low environmental consequences but is likely to occur.
Administrative Non - Compliance		Only to be applied where the non - compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions).

4 APPROVALS AND DOCUMENTATION

4.1 Previous IEA Recommendations

The FY 2020 Annual Review provided an update on outstanding IEA actions, with these summarised below. All wording in this section is from MAC.

Table 5 Progress on outstanding 2017 IEA issues (From 2020 Annual Review)

IEA Report Reference	Issue	IEA Finding	Conditions and Commitments Found Not Compliant	Status (From MAC from FY 2020 Annual Review)
Section 4.1, Table 5 Item 7 (page 10) / Section 4.2, Table 6 Item 7 (page 13)	Due to a Non - compliance in the Water Management Plan, DPIE consider it not implemented	Not Compliant Low Risk	PA 09_0062 Schedule 3 Condition 29	<p>In progress A revised Water Management Plan (WMP) was submitted to DPIE in April 2020 and is currently under assessment. There have been delays in progressing management plan reviews as DPIE have requested that the revised management plans be submitted sequentially to avoid overloading the reviewers.</p> <p>Action assigned (completion of WMP review DPIE dependent).</p>
Section 4.1, Table 5 Item 12 (page 10) / Section 4.2, Table 6 Item 12 (page 15)	Due to an administrative Non - compliance in the Aboriginal Heritage Management Plan, DPIE consider it not implemented.	Not Compliant Administrative	PA 09_0062 Schedule 3 Condition 45	<p>In progress The Aboriginal Heritage Management Plan (AHMP) is currently being reviewed and revised by Mt Arthur Coal, in consultation with OEH, the Aboriginal community, MSC and relevant landowners.</p> <p>The DPIE have requested that the revised management plans for review be submitted sequentially to avoid overloading the reviewers. The Management plan reviews have been completed in FY2020 however due to COVID 19 consultation with the Aboriginal community has not been able to be conducted. Feedback from DPIE has been that the submission of the AHMP be delayed till consultation with the community is able to be undertaken.</p> <p>Action assigned (completion of AHMP review DPIE dependent).</p>

IEA Report Reference	Issue	IEA Finding	Conditions and Commitments Found Not Compliant	Status (From MAC from FY 2020 Annual Review)
Section 4.1, Table 5 Item 13 (page 10) / Section 4.2, Table 6 Item 13 (page 15)	Due to an administrative Non - compliance in the Environmental Management Strategy, DPIE consider it not implemented.	Not Compliant Administrative	PA 09_0062 Schedule 5 Condition 1	In Progress A draft revised Environmental Management Strategy was submitted to DPIE in August 2020 and is currently under assessment. There have been delays in progressing management plan reviews as DPIE have requested that the revised management plans be submitted sequentially to avoid overloading the reviewers. Action assigned (completion of WMP review DPIE dependent).
Section 4.1, Table 5 Item 16 (page 10) / Section 4.7, Table 8 Items 1 and 5 (page 17) / Section 4.8, Table 9 Items 1 (page 18)	There was no evidence of the approval of flow metering devices by NSW Office of Water (or DPI Water).	Not Compliant Low Risk	Water Licence 20BL171995 C2	In progress Further investigation into this groundwater licence condition and Mt Arthur Coal's compliance with it will be undertaken. The Office of Water will be notified of the outcomes of the investigation and any specific actions/due dates that come out of it. Action assigned
		Not Compliant Administrative	Water Licence 20BL171995 C8	
		Not Compliant Administrative	Water Licence 20BL168155 C7	
Section 4.1, Table 5 Item 17 (page 10) / Section 4.7, Table 8 Item 2 (page 17)	There was no evidence of the provision of maps or plans showing the location of works associated with water licences.	Not Compliant Administrative	Water Licence 20BL171995 C3	In progress Further investigation into this groundwater licence condition and Mt Arthur Coal's compliance with it will be undertaken. The Office of Water will be notified of the outcomes of the investigation and any specific actions/due dates that come out of it. Action assigned
Section 4.1, Table 5 Item 18 (page 10) / Section 4.7, Table 8 Item 3 (page 17)	Not all documents developed by the site to address the requirement to minimise ongoing seepage of alluvial groundwater to the mine works were approved by the NSW	Not Compliant Administrative	Water Licence 20BL171995 C5	In progress Further investigation into this groundwater licence condition and Mt Arthur Coal's compliance with it will be undertaken. The Office of Water will be notified of the outcomes of the investigation and any specific actions/due dates that come out of it. Action assigned

IEA Report Reference	Issue	IEA Finding	Conditions and Commitments Found Not Compliant	Status (From MAC from FY 2020 Annual Review)
	Office of Water (or DPI Water), specifically the MOP.			
Section 4.1, Table 5 Item 19 (page 10) / Section 4.7, Table 8 Item 4 (page 17)	Water licence compliance reports were not submitted.	Not Compliant Medium Risk	Water Licence 20BL171995 C7	In progress Further investigation into this groundwater licence condition and Mt Arthur Coal's compliance with it will be undertaken. The Office of Water will be notified of the outcomes of the investigation and any specific actions/due dates that come out of it. Action assigned
Section 4.1, Table 5 Item 27 (page 11) / Section 4.26, Table 14 Item 1 (page 22)	The EMS needs to be updated as it quotes procedures that were no longer used and could not be found.	Not Compliant Administrative	EMS Table 2	In Progress A draft revised Environmental Management Strategy with an updated document register was submitted to DPIE in August 2020 and is currently under assessment. There have been delays in progressing management plan reviews as DPIE have requested that the revised management plans be submitted sequentially to avoid overloading the reviewers. The DPIE also prioritised post approval document review for sites requiring critical updates. Action assigned (completion of WMP review DPIE dependent).
Section 4.1, Table 5 Item 28 (page 11) / Section 4.28, Table 15 Item 1 (page 22)	The Thomas Mitchell Drive offset area has been fenced in accordance with the AHMP but the access protocols were not determined through consultation with the Indigenous Stakeholders.	Not Compliant Administrative	AHMP S5.1	In Progress The Aboriginal Heritage Management Plan (AHMP) is currently being reviewed and revised by Mt Arthur Coal, in consultation with OEH, the Aboriginal community, MSC and relevant landowners. The DPIE have requested that the revised management plans for review be submitted sequentially to avoid overloading the reviewers. Additional delays have occurred due to COVID restricting consultation with Stakeholders. Action assigned (completion of AHMP review DPIE dependent).
Section 4.1, Table 5 Item 29 (page 11) /	The commitments from Section 5.8 of the AHMP	Not Compliant Administrative	AHMP S5.8	In Progress Mt Arthur Coal is going through the process of updating induction requirements for all of site in a complete overhaul of the induction process.

IEA Report Reference	Issue	IEA Finding	Conditions and Commitments Found Not Compliant	Status (From MAC from FY 2020 Annual Review)
Section 4.28, Table 15 Item 2 (page 23)	are not followed through in the site induction package.			<p>This will include assigning requirements for all levels of staff regarding environmental and cultural heritage awareness. Mt Arthur Coal will update the site induction package accordingly. In the interim a site-wide notice was issued on 22 August 2019 communicating cultural heritage requirements on site, the purpose being to refresh everyone on the commitments outlined in Section 5.8 of the Aboriginal Heritage Management Plan.</p> <p>Action assigned</p>
Section 4.1, Table 5 Item 31 (page 11) / Section 4.28, Table 15 Item 4 (page 23)	The offset management plans do not refer to Cultural Heritage issues.	Not Compliant Administrative	AHMP App 4	<p>In progress The Aboriginal Heritage Management Plan (AHMP) is currently being reviewed and revised by Mt Arthur Coal, in consultation with OEH, the Aboriginal community, MSC and relevant landowners. The DPIE have requested that the revised management plans for review be submitted sequentially to avoid overloading the reviewers.</p> <p>Additional delays have occurred due to COVID restricting consultation with Stakeholders.</p> <p>Action assigned (completion of AHMP review DPIE dependent).</p>
Section 4.1, Table 5 Item 41 (page 12) / Section 4.45, Table 26 Item 1 (page 30)	The Aboriginal Heritage Management Plan should have been updated in consultation with the Aboriginal community and the OEH to specify management and mitigation measures relevant to the 2013 Modification area.	Not Compliant Administrative	EA 2013 S4.7.3	<p>In progress The Aboriginal Heritage Management Plan (AHMP) is currently being reviewed and revised by Mt Arthur Coal, in consultation with OEH, the Aboriginal community, MSC and relevant landowners. The DPIE have requested that the revised management plans for review be submitted sequentially to avoid overloading the reviewers.</p> <p>Action assigned (completion of AHMP review DPIE dependent).</p>

4.2 Project Approval

The IEA assessed the MAC Mine – Open Cut Consolidation Project - Project Approval (09_0062) which was approved by DPIE on 26 September 2014. There have been no modifications to the Project Approval. Based on Schedule 2 Condition 5 of the Project Approval the site has approval to undertake mining operations for the project until 30 June 2026.

Recommendations relating to the Project Approval are outlined in **Section 6 and 7** of this IEA Report.

4.3 Environment Protection Licence

MAC operated under Environment Protection Licence (EPL) 11457 which has an anniversary date of 31 August. Recommendations relating to the EPL are outlined in **Section 6 and 7** of this IEA Report.

4.4 Management Plans and Programs

Each environmental management plan required under the Development Consent has been assessed as part of this IEA, with these management plans listed in the table below. The IEA team discussed the status of the management plans with MAC as part of the IEA. In summary:

- Evidence was provided for consultation with DPIE during the IEA period, including in relation to updated management plans for the *Air Quality Management Plan* and *Blast Management Plan*;
- Evidence was provided for the draft submission of several management plans, including the *Water Management Plan* (and sub plans);
- As several of the management plans were not reviewed during the IEA period, these have been deemed non – compliant. Some of the approved management plans are from 2012 and 2013, which is well outside the IEA period; and
- Many of the recommendations within **Section 4.1** of this report (Previous IEA Actions) relate to updating management plans.
- Recommendations relating to management plans are outlined in **Section 6 and 7** of this IEA. The overarching recommendation out of this IEA in relation to management plans that all management plans should be reviewed and where required revised and resubmitted to be consistent with Schedule 5 Condition 4 of the Development Consent which states that.

Within 3 months of:

- (a) the submission of an annual review under condition 3 above;*
- (b) the submission of an incident report under condition 7 below;*
- (c) the submission of an audit under condition 9 below; or*
- (d) any modification to the conditions of this approval,*

the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within four weeks of the review the revised document must be submitted to the Secretary for approval.

The key requirement relating to the review of management plans following an IEA is highlighted in red. It is noted that many of the management plans were not revised following the last IEA, however evidence has been provided of consultation between MAC and DPIE regarding management plans during the IEA period. A summary of management plans are outlined in the table below. Recommendations relating to management plans are outlined in **Section 6 and 7**.

Table 6 MAC Management Plans

Development Consent Condition	Management Plan	Current Approved Management Plan Date	Summary of Management Plan
Schedule 3, Condition 9	Noise Management Plan	July 2020	This management plan was updated in the IEA period and submitted to planning in 2019 and approved in July 2020 the plan was under revision with DPIE for that period. It should be noted that the site operated under a May 2013 Management Plan for most of the IEA period, hence this was reviewed by the IEA team.
Schedule 3, Condition 9(c)	Noise Monitoring Program	July 2020	This management plan was updated in the IEA period and submitted to planning in 2019 and approved in July 2020 the plan was under revision with DPIE for that period. This has been incorporated within the overall Noise Management Plan. It should be noted that the site operated under a May 2013 Management Plan for most of the IEA period, hence this was reviewed by the IEA team.
Schedule 3, Condition 17	Blast Management Plan	17 April 2018	This management plan was updated in April 2018. The site generally operated as per the <i>Blast Management Plan</i> , however there was an issue with blast fume management on 17 April 2019. Evidence was sighted of implementing blasting practices as per the Management Plan.
Schedule 3, Condition 24	Air Quality Management Plan	25 Jan 2019	This management plan was updated in January 2019, however further reviews are required following this IEA. The site generally operated as per the <i>Air Quality Management Plan</i> , however there some issues with dust management as noted by the EPA and DPIE which has resulted in a non - compliance with implementing this management plan.
Schedule 3, Condition 29	Water Management Plan	23 Aug 2012	This management plan is an older plan. An updated management plan has been provided to DPIE in 2020 for review and approval.
Schedule 3, Condition 30	Site Water Balance	20 Aug 2012	This management plan is an older plan. An updated management plan has been provided to DPIE in 2020 for review and approval.
Schedule 3, Condition 31	Erosion and Sediment Control Plan	20 Aug 2012	Although the currently approved management plan is an older plan, the site appeared to be implementing erosion and sediment controls effectively based on records provided and the site inspection.
Schedule 3, Condition 32	Surface Water Monitoring Program	17 July 2015	This management plan is an older plan. An updated management plan has been provided to DPIE in 2020 for review and approval.

Development Consent Condition	Management Plan	Current Approved Management Plan Date	Summary of Management Plan
Schedule 3, Condition 33	Groundwater Monitoring Program	28 April 2015	<p>This management plan is an older plan. An updated management plan has been provided to DPIE in 2020 for review and approval.</p> <p>In regard to the implementation of this management plan the 2019 Annual Review stated:</p> <p><i>Although the FY18 Annual Review stated that groundwater trigger values were revised following the completion of the interim monitoring program and would be applied for the FY19 monitoring period, instead the currently approved GWMP dated 28 April 2015 is applicable for the FY19 monitoring period. The revised trigger values will not be applied until further review and subsequent approval by the DPIE.</i></p> <p><i>In anticipation of moving to the revised site Water Management Plan in FY19, Mt Arthur Coal adjusted the sampling frequency to quarterly instead of bi-monthly and also adjusted the sampling requirements at some of the sites as recommended by the independent consultant. This premature implementation of the revised site Water Management Plan resulted in a number of non - compliances with regards to collection of manual water level data and collection of water quality sample data.</i></p>
Schedule 3, Condition 34	Surface and Groundwater Response Plan	28 April 2015	<p>This management plan is an older plan. An updated management plan has been provided to DPIE in 2020 for review and approval.</p> <p>Triggers associated with groundwater reporting have been completed in accordance with an unapproved management plan. See Schedule 3 Condition 33 of the Project Approval.</p>
Schedule 3, Condition 40	Biodiversity Management Plan	May 2019	<p>This management plan was approved by DPIE in May 2019. Evidence of the implementation of this management plan was provided to the IEA team. There was an incident relating to clearing outside a boundary with this outlined in further details in Section 7. This resulted in a non – compliance with the <i>Biodiversity Management Plan</i>.</p>
Schedule 3, Condition 42	Rehabilitation Strategy	26 May 2017	<p>The <i>Rehabilitation Strategy</i> document is dated 26 May 2017. This document meets the requirements of the Project Approval conditions and implementation was assessed by the Rehabilitation Specialists as part of this IEA.</p>
Schedule 3, Condition 44	Rehabilitation Management Plan	10 December 2019	<p>Most recent Rehabilitation Management Plan (RMP) is dated 14 May 2020. The previous RMP is dated 10 December 2019.</p> <p>There are recommendations with regards to the implementation of this management plan, with this outlined in Section 7 of this IEA and Appendix C.</p>

Development Consent Condition	Management Plan	Current Approved Management Plan Date	Summary of Management Plan
Schedule 3, Condition 45	Aboriginal Heritage Management Plan	20 Aug 2012	The most recent version of the <i>Aboriginal Cultural Heritage Plan</i> was approved in August 2012. The plan is an older plan and there are recommendations regarding proposed changes within Section 7.
Schedule 3, Condition 45A (b)	Endinglassie and Rous Lench Heritage Management Program	18 Aug 2012	The most recent <i>Historic Heritage Management Plan</i> dated September 2012. This plan is an older plan and requires an update. Minor changes are proposed with these outlined in Section 7.
Schedule 5, Condition 1	Environmental Management Strategy	27 May 2013	The currently approved EMS is dated 27 May 2013. Although this plan is an older plan, the site had generally completed activities as per the mitigation measures. Due to the age of the plan it is recommended that it is reviewed and updated.

4.5 Mining Leases

The following mining leases (ML's) were reviewed as part of the IEA:

- CL 396;
- CL 744;
- ML 1358;
- ML 1487;
- ML 1548;
- ML 1593;
- ML 1655;
- ML 1739;
- ML 1757; and
- ML 263.

There were no non – compliances identified with the mining leases. Although there was some direction from the DPIE-RR to repair rehabilitation, no evidence was provided to the IEA team for non – compliances in regards to mining lease conditions relating to actual rehabilitation.

4.6 Water Access Licences

The Annual Reviews provide an update on Water Access Licences (WAL) including passive take / inflows and active pumping. A review of water take compared to the entitlement (unit share) has been included within this section of the IEA.

The IEA team has assessed compliance with the information that MAC has provided within the Annual Review. MAC appeared compliant with approval limits.

Table 7 Water Take at MAC During the IEA Period

Water Licence Number	WAL Entitlement (ML)	FY18			FY19			FY20		
		Passive Take / Inflows (ML)	Active Pumping (ML)	Total (ML)	Passive Take / Inflows (ML)	Active Pumping (ML)	Total (ML)	Passive Take / Inflows (ML)	Active Pumping (ML)	Total (ML)
WAL 917	2,197	-	0	0	-	0	0	-	1686.9	1686.9
WAL 918	3,564	-	3244.4		-	2980	2980	-	3060.5	3060.5
WAL 1296	301	-	0	0	-	0	0	-	0	0
WAL 18141	104	50*	-	50*	50*	-	50*	50*	-	50*
WAL 18247	247	191*	-	191*	191*	-	191*	191*	-	191*
WAL 41495	750	750^	-	750^	750^	-	750^	750^	-	750^
WAL 41556	250	58^	-	58^	58^	-	58^	58^	-	58^

* Alluvial inflow has been calculated, based on predicted flux to and from alluvium (ML/day) as reported in the EIS, to be a total of 241 ML, which has been allocated across the two alluvial licences.

^ Groundwater seepage has been calculated based on predicated average inflow to the pits (ML/day) as reported in the EIS, to be a total of 808 ML, which has been allocated across the two groundwater licences.

4.7 Complaints

A summary of complaints is outlined in the Annual Review and Complaints Log. The number and type of complaints did vary across the IEA period. Evidence was provided to the IEA team regarding the investigation and reporting of complaints.

Table 8 Number of Complaints since last IEA

Year	Total Complaints	Breakdown of Complaints	
FY20	54	Blasting	7
		Dust	6
		Lighting	18
		Noise	19
		Spontaneous Combustion	1
		Other	3
FY19	85	Biodiversity	1
		Blasting	17
		Dust	21
		Lighting	23
		Noise	16
		Spontaneous Combustion	1
		Other	5
FY18	39	Blasting	4
		Dust	12
		Lighting	14
		Noise	9

4.8 Reportable Environmental Incidents

Reportable incidents during the IEA period were outlined in the Annual Reviews.

Table 9 Summary of Incidents from Annual Reviews (From MAC)

Date	Aspect	Condition Number	Summary of Incident from Annual Reviews (From MAC)	Auditor Notes
FY18	Dust	O3.1 of EPL	On Tuesday 17 November Mt Arthur Coal mine (MAC) received an invitation to show cause from the Environmental Protection Agency (EPA) regarding haul road dust suppression practices on 14 November 2017. The EPA alleged that a number of dump trucks were utilising the haul road adjacent Denman Road without adequate dust suppression. The EPA further alleged that dust was observed leaving the mine site for a period of 15 minutes from approximately 14:22 hours.	Noted. This has caused non compliances with some EPL and consent conditions.
		O3.2 of EPL		
FY18	Air Quality	Schedule 3, Condition 20 of PA09_0062	Over the following dates: 8, 13, 14, 15 and 20 December 2017 elevated 24 hour average PM10 results were recorded at DC02, DC05 and DC09. MAC issued a notification to the Department of Planning and Environment (DP&E) on 27 December 2017 detailing the findings of internal investigations into the exceedances of the MAC 24 hour average PM10 trigger value (50 µg/m ³). In this initial investigation it was determined that only one exceedance was determined to have been the result of contribution from MAC (DC05 on 15 December 2017 51.8 µg/m ³).	Noted. Non - compliance.
FY19	Blasting	Not stated, but covers consent and EPL conditions	On 24 December 2018 at 2:15 pm a blast in Windmill pit recorded an air blast overpressure result above the maximum 120 dBL limit. This event recorded an air blast overpressure exceedance of 120.6 dBL at the Denman Road West monitor (BP09) and resulted in two complaints. This exceedance was notified to both the DP&E and the EPA.	Noted. Further investigations indicated compliance.
FY19	Blasting	Not stated, but covers consent and EPL conditions	On 12 February and 5 March 2019 air blast overpressure and ground vibration results were not recorded at the Denman Road West (BP09) or Yammanie North (BP10) monitors for two blast events. The two blast events were RXN2764BB_B2 on 12 February 2019 at 12:36 pm and AYC0086RL232 on 5 March 2019 at 10:58 am.	Noted, non – compliance.

Date	Aspect	Condition Number	Summary of Incident from Annual Reviews (From MAC)	Auditor Notes
FY19	HVAS	Note stated, but Schedule 3 Condition 23 of PA09_0062	HVAS exceedance results from December 2018 were not individually investigated and reported to the DP&E. The reason for not reporting was based on the ongoing liaison with DP&E regarding the planned removal of HVAS equipment from the AQMP. The AQMP was submitted to the DP&E for initial review in September 2018. The AQMP was approved in January 2019 with endorsement by DP&E for the removal of HVAS equipment.	Noted, non – compliance.
FY19	Dust	O1.1 of EPL	A report was received by the EPA alleging dust generated from the Mt Arthur Coal mine operation was visible over Denman Road and Edderton Road, Muswellbrook at approximately 6:25 pm on Friday 26 October 2018. The report also alleged that no water carts were observed being used on the premises. On 29 October 2018 Mt Arthur Coal received a Request for Information from the EPA. On 4 December 2018 Mt Arthur Coal received a Notice to Provide Information and/or Records (Notice Number 1572816) from the EPA, followed by a subsequent Notice to Provide Information and/or Records (Notice Number 1578433) on 2 May 2019.	Noted, non – compliance.
		O2.1 of EPL		
		O3.1 of EPL		
FY20	Blasting	Not stated, but covers consent and EPL conditions	On 8 August 2019 there was an exceedance of the 120dBL overpressure limited recorded at Sheppard Ave (120.5dBL).	Noted. Further investigations indicated compliance.
FY20	Air Quality	Schedule 3, Condition 24	Air quality investigation reports were submitted to DPIE for 10 and 11 of December 2019. The reports showed that there were no recorded actions in response to a level 3 alarm from the dust monitoring system. DPIE have undertaken an investigation and determined that this was a failure to comply with Schedule 3, Condition 24 of MP09_0062 by failing to implement the approved Air Quality Management plan to the satisfaction of the Secretary on 10, 11 and 16 December 2019.	Noted, non – compliance.

Date	Aspect	Condition Number	Summary of Incident from Annual Reviews (From MAC)	Auditor Notes
FY20	Land Management	Schedule 3, Condition 40	<p>In early January 2020, a contractor undertaking clearing at MAC cleared an area of approximately 250m² beyond the pegged disturbance limit, which was also beyond the approved MAC disturbance boundary. This has been assessed to be a failure to comply with Schedule 3, Condition 40 of Project Approval MP 09_0062 by failing to implement the approved Biodiversity Management Plan (BMP) to the satisfaction of the Secretary.</p> <p>Section 11.3.1 of the approved BMP refers to the MAC Land Management Procedure, which details control measures to be implemented during vegetation clearing.</p>	Noted, non – compliance.
FY20	Water	Schedule 3 Condition 32 of PA09_0062	<p>On 23 January 2020 a leak from the Environment Dam to Belmont pit line was identified. Water was observed flowing along the inside of the Denman Rd visual bund, then through a rock lined drainage point and silt fence to a set of culverts under Denman Rd. Assessment determined that there was no material harm to the environment.</p>	Noted, non – compliance with <i>Water Management Plan/Surface Water Monitoring Program</i> .
FY20	Water	Schedule 3 Condition 32 of PA09_0062	<p>On 6 February, an excavator was burying a mine water pipeline across the old conveyor access road. As the excavator was completing the task, the bucket clipped the pipe causing it to rupture. The pump connected to the pipe was switched off and the pipeline was not in use at the time the event occurred. Therefore, there was only a minimal amount of residual water in the pipe at the time it was damaged. Water contained within the pipe at the time of the event flowed 160m down the conveyor corridor with a small volume entering Saddlers Creek. The majority of the water discharged from the line was contained within the conveyor corridor. Saddlers Creek had no water in it at the time of the event. There was no pooling due to the small volume of water that reached the creek which immediately soaked into the soil. Water samples were collected directly from the pipe and sent for analysis. An assessment was completed which found no material harm to the environment.</p>	Noted, non – compliance with <i>Water Management Plan/Surface Water Monitoring Program</i> .

Date	Aspect	Condition Number	Summary of Incident from Annual Reviews (From MAC)	Auditor Notes
FY20	Groundwater	Schedule 3 Condition 33 of PA09_0062	A number of non - compliances with regards to collection of manual water level data and collection of water quality sample data Although the FY18 Annual Review stated that groundwater trigger values were revised following the completion of the interim monitoring program and would be applied for the FY19 monitoring period, instead the currently approved GWMP dated 28 April 2015 is applicable for the FY19 monitoring period. The revised trigger values will not be applied until further review and subsequent approval by the DPIE.	Noted, non – compliance.

4.9 Comparison Against EA Predictions

The IEA team completed a review of the Key Environmental Assessment Commitments, with this being the Mitigation Measures and Management (Section 4) from Mt Arthur Coal Open Cut Modification - Environmental Assessment 2013.

The IEA team reviewed monitoring results from the Annual Reviews to assess in comparing actual vs predicted impacts. It is noted that MAC compared results in Annual Reviews against predicted EIS impacts. The IEA is satisfied with how this information is being reported within the Annual Review.

5 ENVIRONMENTAL MANAGEMENT – SPECIALIST ASSESSMENTS

5.1 Rehabilitation

A series of observations and recommendations have been included within **Appendix C – Rehabilitation Specialist Report**. This includes observations relating to soil management, rehabilitation maintenance, surface preparation and rehabilitation trials. **The Appendix C - Rehabilitation Specialist Report** provides further details, including:

- **General Observations** – areas which are currently being improved by MAC and will require continued work during the reporting period; and
- **General Recommendations** – these are recommendations relating to soil management and rehabilitation design.

The **Appendix C** report also discussed the rehabilitation performance within mining leases.

Recommendations relating to rehabilitation are outlined in **Section 6 and 7**. See **Appendix C** for the Rehabilitation Specialist Report.

5.2 Noise and Blasting

The latest approved version of the *Noise Management Plan* is dated May 2013. It is noted that a revised *Noise Management Plan* has been prepared and approved by the DPIE on 7 July 2020. The 2020 *Noise Management Plan* has not been considered as part of the scope of this audit as MAC have operated in accordance with the 2013 *Noise Management Plan* during the IEA period. The IEA noted the following in regard to noise:

- Evidence of the implementation of the noise monitoring programme;
- Email evidence provided indicating changed activities based on noise levels. Sometimes this was the result of a noise complaint;
- Based on inspections, interviews and provided email documentation there is evidence that MAC operate and utilise the real time noise monitoring to adjust operations in response to elevated noise levels and TARP triggers which are received via SMS. Based on site interviews, the mine plan is developed with consideration to design and sequencing of dumps to minimise impacts. There are multiple dump options available to OCEs to adjust operations based on prevailing conditions; and
- Based on the information provided there have been no valid exceedances of the noise criteria in the IEA period evidencing good practice noise management.

There are no specific recommendations relating to noise, with the IEA team noting that MAC is liaising with DPIE regarding the updated *Noise Management Plan*.

The latest approved *Blast Management Plan* is dated April 2018. In terms of the implementation of the *Blast Management Plan* the following was noted:

- Evidence of blast notification and road closures;
- Blasts recorded in the Annual Review;
- As reported in 2020 Annual Review, one blast recorded an airblast overpressure result above the maximum 120 dBL limit on 8 August 2019 at 2:17 pm, recording 124.4 dBL at the Sheppard Avenue monitor (BP07). Investigations determined that the overpressure level was not a valid result as it was the result of wind impact on the microphone, not overpressure from the blast event;

- The non-compliance was self-reported in the FY 2019 Annual Review, however based on the investigation report this is considered compliant;
- Evidence of blasting recorded on the portal; and
- Evidence of fume management being recorded for blasts on a blast recording spreadsheet. Blasting completed by trained specialists.

There was a blast fume incident during the IEA period. Key aspects of the blast fume incident:

- Blasting occurred at 10:40am on 17 April 2019;
- The blast was completed by a contractor;
- The EPA contacted MAC at 11:24am on 17 April 2019 to outline a complaint has been received and required an incident report by 24 April 2019. MAC provided some information by email (not an official report) on 19 April 2019; and
- MAC notified DPIE at 9:26am on 19 April 2019. Additional information was provided to DPIE by email on 11:13am on 24 April 2019.

A further incident report was provided to DPIE on 10 May 2019. This original incident report to DPIE was brief and didn't contain any photos of the fume incident. The report stated that 'Upon firing the blast at 10:30am on 17 April 2019 NOx fume was generated and given a 4C rating by the BHP appointed shotfirer'.

The following key findings were identified upon investigation:

1. Pre blast checklist did not identify level of fume as a risk;
2. Product selection in the area was not designed specifically for blasting in pre-strip and clay materials; and
3. The blast was located in a pre-strip area with high clay content, resulting in an incomplete combustion reaction in the blast column upon firing.

Additional training was completed for blast contractors. The incident report stated that the pre-blast checklist did not identify the level of blast fume as a risk. Based on the fact that the shot had been sleeping for 10 days and there was clay material in the blasting area, the blast fume risk should have been high.

It is noted that the initial blast fume rating in the email to DPIE on 19 April stated the blast was a 4A. The 10 May 2020 incident report stated the shot had a fume rating of 4C, with the original 4A rating being incorrect. Based on the incident report the fume dissipated and did not leave the mining lease. The Blast Flume rating system (ratings and example photos) from the *Code of Good Practice: Prevention and Management of Blast Generated NOx Gases in Surface Blasting, Edition 2, (AEISG, August 2011)* is included in the internal *PRP-PRO 106 Pre Blasting Approval*.

Recommendations relating to blasting are outlined in **Section 6 and 7**.

5.3 Air Quality

The most recent *Air Quality Management Plan* was approved on 25/1/2019 by DPIE. The prior version was approved on 27/5/2013 and covered over half of this IEA period. The assessment of preparation requirements has been completed against the 2019 document.

The following was observed by the IEA team:

- The site inspection during the IEA noted effective dust management;

- Looking into two of the pits, evidence was seen of water trucks being used and speeds being minimised to reduce dust;
- In the afternoon on the second day of the IEA, some higher levels of dust were seen along the haul road near the CHPP workshop. It was noted and the MAC Specialist Environment called up on the UHF radio and a water truck was already on its way to water the haul road. This was a very quick action and immediately reduced dust. The IEA were impressed with the way dust was being managed during the field inspection; and
- Dust was being managed effectively at the Mt Arthur South area at the time of the site inspection.

Evidence was provided for the changing of operations based on the real time system. This real time system has been used at site for the past two years ago and appears to be an excellent tool for dust management. This system enables MAC to determine the contribution of dust from the site, with this being a manual system prior to the current system. Evidence was provided for predicting areas where dust would be an issue during a shift. It is noted that a company has been engaged to assist with incorporating data validation. The IEA team also notes that an air quality specialist was involved with the initial establishment of the system.

There were some issues with dust (also noted in Section 6) during the IEA period, with these including:

- MAC received a penalty notice for excessive wheel generated dust on 14 November 2017 based on an EPA inspection. A Penalty Notice of \$15,000 and an Official Caution were issued by the EPA for the alleged breach of 64(1) of the POEO Act, being failure to comply with condition O3.1 of the MAC EPL that occurred on 17 November 2017;
- The DPIE provided a show cause notice to MAC for inadequate response to real - time air quality alarms on 14-15 December 2017;
- Reporting of HVAS Exceedances - HVAS exceedance results from December 2018 were not individually investigated and reported to the DPIE. The reason for not reporting was based on the ongoing liaison with DPIE regarding the planned removal of HVAS equipment from the AQMP;
- MAC received a Penalty Notice from the EPA for 'Dust over Denman and Edderton Roads on 26 October 2018'. The letter was dated 23 July 2019; and
- Air quality investigation reports were submitted to DPIE for 10 and 11 of December 2019. The reports showed that there were no recorded actions in response to a level 3 alarm from the dust monitoring system.

Recommendations relating to air quality are outlined in **Section 6 and 7**.

5.4 Erosion and Sediment Control/Water Management

The IEA team determined that the Water Management Plan and associated sub plans are older plans. It is understood that draft management plans have been prepared by MAC in 2020 and resubmitted to DPIE.

At the time of the site inspection the following was observed:

- Some details on erosion and sediment control within Annual Reviews. No major issues were identified across the site in operating areas;
- There was little erosion on sediment dams or drainage lines;
- There was some issues identified in rehabilitation areas, with this outlined in the specialist Rehabilitation Report;
- There was some minor erosion along some haul roads with this to be repaired as part of usual maintenance;
- Evidence of inspections after 25mm of rainfall. This information was saved on tablet and the server;

- Evidence of dam inspections from Responsible Dam Engineer; and
- There were discussions about testing of sediment dams during discharge events. Dams appear to be designed as per the Blue Book.

During the IEA period there were two discharge events, with these outlined within **Section 4.8**. The site has been liaising with the EPA and a Pollution Reduction Program condition will be included in the EPL regarding water management.

The *Water Management Plan* and associated sub plans are older plans. It is understood that draft management plans have been prepared by MAC in 2020 and resubmitted to DPIE.

Recommendations relating to erosion and sediment control/water management are outlined in **Section 6 and 7**.

5.5 Groundwater

Some of the key aspects noted regarding groundwater during the IEA period included:

- The *Groundwater Monitoring Program (2015)* requires the proponent to monitor water quality every 6 months, for a full suite of metals and major ions and bimonthly and continuously with a datalogger for almost all bores;
- Full water quality is reported for a small number of bores only in Annual Review FY18, however a lot of bores have been missed. The water monitoring records, both on a two monthly basis and continuous datalogger readings are presented for 4 bores and one VWP only;
- None of the other hydrographs or results are presented in FY18 and FY19. Annual Review FY2019 reports a number of conditions which are not met and discusses the outcome and the reason behind this;
- Annual report FY20 reports all monitoring both level and quality and presents the results of those; and
- Monitoring is not in compliance with the requirements of Groundwater Monitoring Program for FY18 and FY19.

Implementation of Groundwater Monitoring Program

Section 3.2 of the 2018/2019 Groundwater Annual Review uses trigger values in the approved *Groundwater Monitoring Program (2015)* and states a number of bores including the ones installed in the alluvium to have exceeded trigger levels for mainly water level and to minor extent for water quality. The recommendations made in the previous report were not fully followed through.

The 2018 Groundwater interim monitoring program report states that new groundwater model is being prepared for trigger level review, however there is no mention of the outcomes in 2018/2019 Groundwater annual review. Groundwater monitoring protocols were not followed from previous report and following a number of improvements recommended by the consultant.

Section 11 of the 2019 Annual Review reported that Groundwater monitoring not undertaken in accordance with the approved Plan. A number of exceedances were reported and details provided. The 2019 Annual Review stated:

Although the FY18 Annual Review stated that groundwater trigger values were revised following the completion of the interim monitoring program and would be applied for the FY19 monitoring period, instead the currently approved GWMP dated 28 April 2015 is applicable for the FY19 monitoring period. The revised trigger values will not be applied until further review and subsequent approval by the DPIE.

In anticipation of moving to the revised site Water Management Plan in FY19, MAC adjusted the sampling frequency to quarterly instead of bi-monthly and also adjusted the sampling requirements at some of the sites as recommended by the independent consultant. This premature implementation of the revised site Water Management Plan resulted in a number of non-compliances with regards to collection of manual water level data and collection of water quality sample data.

Water level and quality exceedances were reported to DPIE in April 2020 and new *Site Water Management Plan* including *Groundwater Monitoring Program* submitted for approval.

Groundwater Model Verification

Model verification was undertaken and is reported in Annual Review 2020 (Annual Groundwater Review 2019/2020). There were no model updates since the issue of the EA in 2013, therefore it has been over 5 years since the groundwater model was verification. A review of the groundwater model was underway at the time of the IEA but had not been completed within the audit period.

Impacts to Groundwater Inflow

The *Groundwater Monitoring Program (2015)* states that *as no measurement of volumes can be taken, the modelled values are considered most appropriate method of estimates, unless the trigger values are exceeded*. Given that trigger values were exceeded in 2018, 2019 and 2020 the impacts also need to be assessed.

Impacts to Private Landholders

Annual review 2019 and 2018/2019 does not mention the impacts to private landholders. Annual Review FY20 indicates that the *'alluvial monitoring shows no adverse impact on the alluvial groundwater conditions and beneficial use of groundwater'*.

Recommendations relating to groundwater are outlined in **Section 6**. See **Appendix D** for the Groundwater Specialist Report.

6 IEA FINDINGS – SUMMARY OF NON – COMPLIANCES

Table 10 outlines the summary of non - compliances and proposed recommendations relating to the key approvals. It should be noted that Improvement recommendations are outlined in **Section 7**.

Table 10 Summary of Non - Compliances

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
Project Approval (PA09-0062)				
S2 C12	<p>Operation of Plant and Equipment</p> <p>The Proponent shall ensure that all plant and equipment used at the site, and equipment used offsite to monitor the performance of the Mt Arthur mine complex, is:</p> <p>(a) maintained in a proper and efficient condition; and</p> <p>(b) operated in a proper and efficient manner.</p>	Non - Compliant (Low Risk)	<p>a) Evidence of numerous maintenance certificates for environmental monitoring equipment including air quality, water monitoring and meteorological stations.</p> <p>b) The dust issues and Penalty Notices from the EPA during the IEA period (see Schedule 3 Condition 24) indicate the site was not operating in a proper and efficient manner during the times of those PIN's. MAC received 2 penalty notices for dust in the FY 2019.</p> <p>It was determined that MAC was non - compliant with Condition O1.1, O2.1, O3.1 and O3.2 of the EPL, which includes conditions such as "Licensed activities must be carried out in a competent manner". Therefore MAC is also non - compliant with this condition.</p> <p>There are no further recommendations relating to this specific condition.</p>	No further recommendation
S3 C16	<p>Operating Conditions</p> <p>During mining operations on site, the Proponent shall:</p> <p>(a) implement best blasting practice to:</p>	Non - Compliant (Low Risk)	<p>a) Evidence of Blast Management Plan and other MAC Blasting Procedures. Details of blasting results are outlined in the Annual Review.</p>	No further recommendation

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
	<ul style="list-style-type: none"> • protect the safety of people and livestock in the area surrounding blasting operations; • protect public or private infrastructure/property in the area surrounding blasting operations from blasting damage; and • minimise the dust and fume emissions from blasting at the Mt Arthur mine complex; <p>(b) ensure that blasting on the site does not damage heritage sites, including Edinglassie, Rous Lench, and Balmoral;</p> <p>(c) co-ordinate the timing of blasting on site with the timing of blasting at the Drayton and Bengalla coal mines to minimise the potential cumulative blasting impacts of the three mines; and</p> <p>(d) operate a suitable system to enable the general public and surrounding landowners and tenants to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Secretary.</p>		<p>Evidence of Blast Matrix by Todoroski Air Sciences dated 26 August 2020. This looks at blasting impacts (including potential blast flumes) based on different meteorological conditions.</p> <p>Evidence of blast summaries - eg total area, blast design and results.</p> <p>Evidence of Blast results from the Ecotech system.</p> <p>There was a reportable blast fume event that occurred at 10:37am on 17 April 2019. See Schedule 3 Condition 18 for further details about this event. MAC are therefore non - compliant with this part of the condition. Further mitigation measures have been put in place regarding blast fume management therefore there are no further recommendations regarding this aspect.</p> <p>'Minimise the dust and fume emissions from blasting at the Mt Arthur mine complex'.</p> <p>b) There has been no evidence of damage to these heritage sites from blasting. There is a MAC-ENC-PRG-004 Edinglassie and Rous Lench Heritage Management Program. Section 3.2 states: The assessment of blast vibration vulnerability conducted at Edinglassie homestead concluded that 'blasting vibrations experienced at Edinglassie at present do not appear to be presenting any significant risk of causing building damage to sound fabric, particularly where dominant ground wave frequency is 10 Hz. The EA identified this will be within blast limits, hence no further monitoring is proposed.</p>	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>c) Evidence of co-ordinating blasts with other mines, including screenshots of the Muswellbrook Council website. Evidence of email to Blast Hotline, proposing the shot details.</p> <p>d) General public is notified by Blast Notification Phone and Email List as well as the Council website.</p>	
S3 C17	<p>Blast Management Plan</p> <p>The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this approval, including:</p> <ul style="list-style-type: none"> • detailed demonstration that blasting within the blast control area shown in Appendix 5 can be undertaken in a manner that will meet the blast impact assessment criteria in Table 5 at all times; and • a detailed blast fume management strategy to minimise and manage blast fumes; <p>(b) include a road closure management plan, prepared in consultation with the applicable roads authority, that includes provisions for:</p> <ul style="list-style-type: none"> • minimising the duration of closures, both on a per event basis and weekly basis; • avoiding peak traffic periods as far as practicable; and • coordinating with neighbouring mines to minimise the cumulative effect of road closures; <p>(c) include a blast monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions of this approval; and</p> <p>(d) Include the requirement for Mt Arthur Coal to actively participate in Muswellbrook Council's online blasting portal.</p>	Non - Compliant (Low Risk)	<p><u>Preparation:</u></p> <p>It was resubmitted for approval in March and April 2018. Updated 2018 version is available on the website.</p> <p>a) Section 5. b) Section 4. c) Section 6. d) Section 2.4.</p> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> - Evidence of blast notification and road closures; - Blasts recorded in the Annual Review; - Evidence of blasting recorded on the portal. - Evidence of fume management being recorded in blasts on blast recording spreadsheet. Blasting completed by training specialists. Figure 3 outlines the <i>Blast Fume Management Strategy</i>; <p><u>Blast Fume Event</u></p> <p>Key aspects of the incident:</p> <ul style="list-style-type: none"> - Blasting occurred at 10:40am on 17 April 2019; - This was completed by as contractor; - The EPA contacted MAC at 11:24am on 17 April to outline a complaint has been received and required an incident report by 24 April 2019. MAC provided some information by email (not an official report) on 19 April 2019. 	See Section 7 for Improvement Recommendations.

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>- MAC notified DPIE at 9:26am on 19 April 2019. Additional information was provided to DPIE by email on 11:13am on 24 April 2019.</p> <p>A further incident report was provided to DPIE on 10 May 2019 This original incident report to DPIE was brief and didn't contain any photos of the flume incident. The report stated that 'Upon firing the blast at 10:30am on 17 April 2019 NOx fume was generated and given a 4C rating by the BHP appointed shotfirer'.</p> <p>The Incident report to DPIE dated 10 May 2020 stated: The following key findings were identified upon investigation: 1. <i>Pre blast checklist did not identify level of fume as a risk;</i> 2. <i>Product selection in the area was not designed specifically for blasting in pre-strip and clay materials;</i> 3. <i>The blast was located in a pre-strip area with high clay content, resulting in an incomplete combustion reaction in the blast column upon firing.</i></p> <p>Additional training was completed for blast contractors. The incident report stated that the pre - blast checklist did not identify the level of blast fume as a risk. Based on the fact that the shot had been sleeping for 10 days and there was clay material in the blasting area, the blast fume risk should have been high.</p>	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>It is noted that the initial blast fume rating in the email to DPIE on 19 April stated the blast was a 4A. The 10 May 2020 incident report stated the shot had a fume rating of 4C, with the original 4A rating being incorrect. Based on the incident report the fume dissipated and did not leave the mining lease. The Blast Flume rating system (ratings and example photos) from the Code of Good Practice: Prevention and Management of Blast Generated NOx Gases in Surface Blasting, Edition 2, (AEISG, August 2011). is included in the internal PRP-PRO 106 Pre Blasting Approval.</p> <p>Based on the information within the Blast Management Plan and the blast fume incident report, this was preventable. Therefore <u>non - compliant</u> for implementation of the <i>Blast Management Plan</i>. Further mitigation measures have been put in place regarding blast fume management therefore there are no further recommendations regarding this aspect.</p>	
S3 C20	<p>Impact Assessment Criteria The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not cause exceedances of the criteria listed in Tables 6, 7 and 8 at any residence on privately-owned land (except for air quality affected land listed in Table 1).</p>	Admin Non - Compliance	<p>The has been non - compliances relating to data collection and one exceedance of short term criteria not being reported.</p> <p>It should be noted that the Annual Reviews recorded times where the data capture for the TEOM's was not 100%. Although the capture rate was high this still is a non - compliance, as this affects the annual average and some short term results for PM₁₀. DC09 had a data capture of 85% during the FY 2019 period. This triggers a <u>non - compliance</u> in relation to data collection.</p>	<p>NC REC 1: Ensure that all non - compliances are recorded in the Annual Review under the Incident Reporting Section.</p> <p>See Section 7 for Improvement Recommendations.</p>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations																							
	<p><i>Table 6: Long term impact assessment criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> </tbody> </table> <p><i>Table 7: Short term impact assessment criterion for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a 50 µg/m³</td> </tr> </tbody> </table> <p><i>Table 8: Long term impact assessment criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^c Deposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table>	Pollutant	Averaging period	^d Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging period	^d Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month		<p>1 July 2017 - 30 June 2018 - Table 15 (pg 34) from the FY 2018 Annual Review had the MAC contribution for the TEOM - DC09 (27 September 2017) as 51µg/m³, which is above the short term criteria for PM₁₀. This was not recorded as a non-compliance in the FY 2018 Annual Review in the Incident Section, however information was provided outlining that DPIE were notified at the time of the exceedance.</p> <p>The AQMP was updated during the Audit period (approved on 25 January 2019). For the TEOM's, the criteria applies to DC02, DC04, DC05, DC06, DC07 and DC09. The site no longer monitors using HVAS and use TEOMs as per the approved AQMP.</p> <p>Evidence of air quality monitoring in monthly reports and Annual Reviews which cover financial years. Evidence of MAC assessing the contribution of the site towards air quality criteria. This involves a review of results and wind direction.</p> <p>1 July 2018 - 30 June 2019 - Based on the information provided, including a review of contributions from MAC, the site was within criteria. There were some days of extraordinary events.</p> <p>1 July 2019 - 30 June 2020 - Based on the information provided, including a review of contributions from MAC, the site was within criteria. There were some days of extraordinary events.</p>	
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Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>Notes from Air Quality Specialist:</p> <p>It appears that the air quality impact assessment criteria may have been misinterpreted by MAC in their Annual Reviews. The Annual Reviews estimate MAC's contribution to measured PM10 results and compare the estimated incremental impact against the cumulative PM10 24-hour average criterion. Refer to:</p> <p>Table 12 to Table 15 of FY 2018 Annual Review; Table 12 to Table 15 of FY 2019 Annual Review; and Table 12 and Table 14 of FY 2020 Annual Review.</p> <p>The audit found that on a number of occasions the background contribution to the measured PM₁₀ concentrations where below the criterion and MAC's contribution led to an exceedance of the criteria. These events should be reported as exceedances. For example, on 27 September 2017, DF05 recorded a 24-hour average PM10 concentration of 66 µg/m³, MAC estimates that its contribution to the reading was 43 µg/m³ on that day which means the background concentration was approximately 23 µg/m³ on that day (well below the criteria) and MAC's contribution caused an exceedance of the applicable criteria.</p> <p>In all it is estimated that 65 exceedances were not reported due to this misinterpretation of the criteria these 65 exceedances occurred on 48 unique days which were not noted by the annual reviews to be Declared Extraordinary days and where background pollutant concentrations were estimated to be below the relevant criteria.</p>	
S3 C23	<p>Operating Conditions The Proponent shall:</p>	Non - Compliant (Low Risk)	a) Evidence of air quality monitoring system and actions in place during the field visit. It should be noted that:	No further recommendation

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
	<p>(a) implement best practice air quality management, including all reasonable and feasible measures to minimise offsite odour, fume and dust emissions of the Mt Arthur mine complex;</p> <p>(b) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site;</p> <p>(c) minimise any visible air pollution generated by the Mt Arthur mine complex;</p> <p>(d) minimise the surface disturbance on the site;</p> <p>(e) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval;</p> <p>(f) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d above under Table 8); and</p> <p>(g) co-ordinate air quality management at the Mt Arthur mine complex with air quality management at the Drayton, Mangoola and Bengalla mines to minimise cumulative air quality impacts, to the satisfaction of the Secretary.</p>		<ul style="list-style-type: none"> - MAC received a penalty notice for excessive wheel generated dust on 14 November 2017 based on an EPA inspection. A Penalty Notice of \$15,000 and an Official Caution were issued by the EPA for the alleged breach of 64(1) of the POEO Act, being failure to comply with condition O3.1 of the MAC EPL that occurred on 17 November 2017. - The DPIE provided a show cause notice to MAC for inadequate response to real - time air quality alarms on 14-15 December 2017. - Reporting of HVAS Exceedances - HVAS exceedance results from December 2018 were not individually investigated and reported to the DPIE. The reason for not reporting was based on the ongoing liaison with DP&E regarding the planned removal of HVAS equipment from the AQMP. - MAC received a Penalty Notice from the EPA for 'Dust over Denman and Edderton Roads on 26 October 2018'. The letter was dated 23 July 2019. - Air quality investigation reports were submitted to DPIE for 10 and 11 of December 2019. The reports showed that there were no recorded actions in response to a level 3 alarm from the dust monitoring system. <p>b) Evidence of recording energy usage. No issues identified;</p>	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>c) The site inspection during the IEA noted effective dust management. Looking into two of the pits, evidence was seen of water trucks being used and speeds being minimised to reduce dust. In the afternoon some higher levels of dust were seen along the haul road near the CHPP workshop. It was noted and the MAC 'Specialist Environment 'called up on the UHF radio and a water truck was already on its way to water the haul road. This was a very quick action and immediately reduced dust. Dust was being managed effectively at the Mt Arthur South area at the time of the site inspection.</p> <p>There were times during the IEA period where the site did not effectively minimise visual air pollution effectively. See sub condition a). This has resulted in a <u>Non - compliance</u> for this condition.</p> <p>d) Evidence from the Annual Reviews and field inspection indicates surface disturbance has generally been minimised.</p> <p>e) Evidence of real time and predictive system. This system that came in two years ago appears to have assisted in improving dust management at MAC.</p> <p>f) See sub condition a)</p> <p>g) Evidence of co-ordination through meetings with other sites.</p> <p>MAC are <u>non - compliant</u> for this condition based on the PINS and show cause notices from the EPA and DPIE.</p>	
S3 C24	<p>Air Quality Management Plan</p> <p>The Proponent shall prepare and implement an Air Quality Management Plan for the Mt Arthur mine complex to the satisfaction of the Secretary. This plan must:</p> <p>(a) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this approval:</p>	Non - Compliant (Low Risk)	<p><u>Preparation:</u></p> <p>The most recent AQMP was approved on 25/1/2019 by DPIE. The prior version was approved on 27/5/2013 and covered over half of this IEA period. The assessment of preparation requirements has been completed against the 2019 document.</p> <p>a) Section 3.</p>	<p>Refer to Schedule 5 Condition 2 recommendation for all management plans.</p> <p>See Section 7 for Improvement Recommendations.</p>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
	(b) describe the air quality management system; (c) include an air quality monitoring program that: <ul style="list-style-type: none"> • adequately supports the air quality management system; • evaluates and reports on the: <ul style="list-style-type: none"> - the effectiveness of the air quality management system; - compliance with the air quality criteria; - compliance with the air quality operating conditions; and • defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents. 		b) Section 2 and 3. c) Section 4. <u>Implementation:</u> - Field evidence - The site inspection during the IEA noted effective dust management at the time of the site inspection. - Evidence of air quality monitoring - results and Annual Reviews; - Evidence of predictive system; - Evidence of changing operations based on the real time system. This system that came in two years ago appears to have assisted in improving dust management at MAC. This system enables MAC to determine the contribution of dust from the site, with this being a manual system prior to the current system. Evidence of predicting areas where dust would be an issue during a shift. It is noted that a company has been engaged to assist with incorporating data validation. The IEA team also notes that an air quality specialist was involved with the initial establishment of the system. However it would be preferable if an air specialist was engaged for a quality check of the real time system and dust contributions from site. However there is evidence of the site not effectively implementing the AQMP as per the incidents identified in Schedule 3 Condition 23. Therefore MAC is <u>non - compliant</u> for implementing the AQMP.	
S3 C33	Groundwater Monitoring Program The Groundwater Monitoring Program must include: (a) detailed baseline data of groundwater levels, yield and quality in the region, and privately-owned groundwater bores, that could be affected by the project;	Non - Compliant (Low Risk)	<u>Preparation:</u> a) Appendix 1. b) Section 2.1. c) Section 2 and Appendix 3.	NC REC 2: MAC needs to have the Site water management plan and the GMP approved by DPIE and undertake any further monitoring considering these approved documents.

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
	<p>(b) groundwater impact assessment criteria;</p> <p>(c) a program to monitor:</p> <ul style="list-style-type: none"> • groundwater inflows to the mining operations; • impacts on regional aquifers; • impacts on the groundwater supply of potentially affected landowners; • impacts on the Hunter River and Saddlers Creek alluvial aquifers; and • impacts on any groundwater dependent ecosystems and riparian vegetation; <p>(d) procedures for the verification of the groundwater model; and</p> <p>(e) reporting procedures for the results of the monitoring program and model verification.</p>		<p>d) Section 2.1 states - "The groundwater model will be reviewed every five years and, if required, updated and recalibrated to reflect operational or water management changes".</p> <p>e) Section 2.3.</p> <p><u>Implementation:</u></p> <p>Groundwater monitoring program (2015) requires the proponent to monitor water quality every 6 months, for a full suite of metals and major ions and bimonthly and continuously with a datalogger for almost all bores. Full water quality is reported for a small number of bores only in Annual review FY18, a lot of bores have been missed. The water monitoring records, both on a two monthly basis and continuous datalogger readings are presented for 4 bores and one VWP only. None of the other hydrographs or results are presented in FY18 and FY19. Annual review FY2019 reports a number of conditions which are not met and discusses the outcome and the reason behind this. Annual report FY20 reports all monitoring both level and quality and presents the results of those. Monitoring is not in compliance with the requirements of Groundwater monitoring program for FY18 and FY19.</p> <p>Section 6.2.1 and 6.2.2 of the Review of Groundwater interim monitoring program 2018 recommended revision of water level and quality trigger levels and change in monitoring frequency and sampling points. A number of bores exceeded trigger levels set in the approved GMP.</p>	<p>NC REC 3: There are a number of monitoring protocols and procedures which have not been followed in spite of those being recommended: these monitoring protocols recommended in Section 4 of the 2018/2019 Groundwater Annual Review need to be made mandatory to ensure that the results are reliable and reflective of site conditions. It is recommended that quality control for groundwater data is improved.</p> <p>NC REC 4: A number of exceedances that are reported for Hunter River and Saddlers Creek alluvium need to be investigated and the mitigation measure/resolution provided in the next monitoring report.</p> <p>NC REC 5: GMP 2015 states that as no measurement of inflow volumes can be taken, therefore the modelled values are considered most appropriate method of estimates, unless the trigger values are exceeded. Given that trigger values were exceeded in 2018, 2019 and 2020 the impacts also need to be re-assessed.</p>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>Section 3.2 of the 2018/2019 Groundwater annual review uses trigger values in the approved GWMP 2015 and states a number of bores including the ones installed in the alluvium to have exceeded trigger levels for mainly water level and to minor extent for water quality. The recommendations made in the previous report were not fully followed through. The 2018 Groundwater interim monitoring program report states that new groundwater model is being prepared for trigger level review, however there is no mention of the outcomes in 2018/2019 Groundwater annual review. Groundwater monitoring protocols were not followed from previous report and following a number of improvements recommended by the consultant.</p> <p>Section 11 of the 2019 Annual Review reported that Groundwater monitoring not undertaken in accordance with the approved Plan. A number of exceedances were reported and details provided. The 2019 Annual Review stated:</p> <p><i>Although the FY18 Annual Review stated that groundwater trigger values were revised following the completion of the interim monitoring program and would be applied for the FY19 monitoring period, instead the currently approved GWMP dated 28 April 2015 is applicable for the FY19 monitoring period. The revised trigger values will not be applied until further review and subsequent approval by the DPIE.</i></p>	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p><i>In anticipation of moving to the revised site Water Management Plan in FY19, Mt Arthur Coal adjusted the sampling frequency to quarterly instead of bi-monthly and also adjusted the sampling requirements at some of the sites as recommended by the independent consultant. This premature implementation of the revised site Water Management Plan resulted in a number of non -compliances with regards to collection of manual water level data and collection of water quality sample data.</i></p> <p>Water level and quality exceedances were reported to DPIE in April 2020 and new Site Water Management plan incl Groundwater monitoring program submitted for approval.</p> <p><u>Groundwater model verification -</u> Model verification was undertaken and is reported in Annual Review 2020 (Annual groundwater review 2019/2020). There were no model updates since the issue of the EA in 2013, therefore it has been over 5 years since the groundwater model was verification.</p> <p>Impacts to groundwater inflow- GMP 2015 states that as no measurement of volumes can be taken, the modelled values are considered most appropriate method of estimates , unless the trigger values are exceeded. Given that trigger values were exceeded in 2018, 2019 and 2020 the impacts also need to be assessed.</p> <p><u>Impacts to private landholders-</u></p>	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			Annual review 2019 and 2018/2019 does not mention the impacts to private landholders . Annual review FY20 indicates that the ‘alluvial monitoring shows no adverse impact on the alluvial groundwater conditions and beneficial use of groundwater’.	
S3 C34	<p>Surface and Ground Water Response Plan</p> <p>The Surface and Ground Water Response Plan must describe the measures and/or procedures that would be implemented to:</p> <p>(a) investigate, notify and mitigate any exceedances of the surface water, stream health and groundwater impact assessment criteria;</p> <p>(b) compensate landowners of privately-owned land whose water supply is adversely affected by the project, including provision of an alternative supply of water to the affected landowner that is equivalent to the loss attributed to the project;</p> <p>(c) minimise, prevent or offset potential groundwater leakage from the Hunter River and Saddlers Creek alluvial aquifers; and</p> <p>(d) mitigate and/or offset any adverse impacts on groundwater dependent ecosystems or riparian vegetation.</p>	Non - Compliant (Low Risk)	<p><u>Preparation:</u></p> <p>a) Section 2.1 outlines the exceedance protocol.</p> <p>b) Section 2.3 outlines management of nearby users.</p> <p>c) Section 2.4 outlines management of aquifer leakage.</p> <p>d) The Stream health protocol provides information of managing impacts to riparian vegetation.</p> <p><u>Implementation:</u></p> <p><i>Surface Water</i></p> <ul style="list-style-type: none"> - Evidence of reporting of the exceedance of trigger levels from the Surface Water Monitoring Program. Reporting is completed as per the Surface and Groundwater Response Plan. - Evidence of pipeline leakage with details provided on 23 January 2020, with details provided in Section 11 of the Annual Review. The IEA Team understands there will be a Pollution Reduction Program in place in consultation with the EPA. - Evidence of a discharge of water across the mine water pipeline across the old conveyor access road, with details provided in Section 11 of the Annual Review. <p><i>Groundwater</i></p> <ul style="list-style-type: none"> - Evidence of reporting and investigating groundwater level and quality trigger levels in 2018 and 2018/2019 report. No communication with DPI was sighted except reported trigger level exceedance in 2020. 	<p>Surface Water:</p> <p>As per EPL recommendation relating to Pollution Reduction Program.</p> <p>Groundwater:</p> <p>NC REC 6: Annual reporting needs to make a record of no complaints from the private bore owners.</p>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<ul style="list-style-type: none"> - There is no discussion on landholder bores or impact on those bores in the Annual reports 2018, 2018/2019 and 2019. - Groundwater monitoring is discussed which relates to leakage from alluvium and the cut-off wall effectiveness. The effectiveness of the wall is discussed in Annual report 2019 indicating it was performing satisfactorily. - No GDE s were identified therefore no impact can be assessed. - As the site has been operating under an unapproved Surface Water and Groundwater Response Plan then it is not possible to deem compliance with this condition. 	
S3 C40	<p>Biodiversity Management Plan The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with OEH and Council, and be submitted to the Secretary for approval by the end of March 2015, unless otherwise agreed with the Secretary;</p> <p>(b) describe how the implementation of the offset strategy would be integrated with the overall rehabilitation of the site (see below);</p> <p>(c) include:</p> <p>(i) a description of the short, medium, and long term measures that would be implemented to:</p> <ul style="list-style-type: none"> • implement the offset strategy; and • manage the remnant vegetation and habitat on the site and in the offset areas; <p>(ii) detailed performance and completion criteria for the implementation of the offset strategy;</p>	Non - Compliant (Low Risk)	<p><u>Preparation:</u></p> <p>a) Most recent version of the Biodiversity Management Plan approved in May 2019. Section 12.5 and Appendix 4 outline consultation.</p> <p>b) Section 7 and 9.3.</p> <p>c) i-Sections 7 - 12 has some information but no specific short, medium and long term measures for all biodiversity areas eg. remnant vegetation within the Project Approval area. It is noted that Appendix C outlines management actions within conservation areas 'for a period of 10 years, therefore this meets the requirements.</p> <p>ii -Section 12.1, Section 13 and Appendix 2.</p> <p>iii- Sections 8,9, 11 & Appendix 2.</p> <p>iv - Sections 12 and 13 and Appendix 2.</p> <p>v - Section 13.1.</p> <p>vi - Section 12.1 & 12.4.</p> <p><u>Implementation:</u></p>	No further recommendation

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
	<p>(iii) a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:</p> <ul style="list-style-type: none"> • implementing revegetation and regeneration within the disturbance areas and offset areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata; • protecting vegetation and soil outside the disturbance areas; • rehabilitating creeks and drainage lines that occur on the site, both inside and outside the disturbance areas (such as the White’s Creek Diversion), to ensure no net loss of aquatic habitat; • managing salinity; • conserving and reusing topsoil; • undertaking pre-clearance surveys; • managing impacts on fauna; • landscaping the site and along public roads (including Thomas Mitchell Drive, Denman Road, Edderton Road and Roxburgh Road) to minimise visual and lighting impacts; • collecting and propagating seed; • salvaging and reusing material from the site for habitat enhancement; • salvaging, transplanting and/or propagating threatened flora and native grassland, in accordance with the Guidelines for the Translocation of Threatened Plants in Australia (Vallee et al., 2004); • controlling weeds and feral pests; • managing grazing and agriculture; • controlling access; and • bushfire management; 		<ul style="list-style-type: none"> - Evidence of reporting on biodiversity in the Annual Review. Evidence of annual ecological development monitoring program, consisting of vegetation community assessment and fauna surveys. - Some evidence provided for collection of seed from the conservation and offset areas. - Evidence of weed management - field evidence and site records. Evidence of Weed Mapping Reports including offset areas and rehabilitation areas. Increase in funding for weed management. - Evidence of vertebrate pest management. - It should be noted that the IEA team assessed compliance based on the reports provided to the IEA team. A brief inspection was completed by the IEA Rehabilitation Specialist in one of the onsite offset areas. <p><i>Clearing Incident:</i> The FY 2020 Annual Review provided details on an incident for clearing outside the disturbance boundary. In early January 2020, a contractor undertaking clearing at MAC cleared an area of approximately 250m² beyond the pegged disturbance limit, which was also beyond the approved MAC disturbance boundary.</p>	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
	<p>(iv) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;</p> <p>(v) a description of the potential risks to successful revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and</p> <p>(vi) details of who would be responsible for monitoring, reviewing, and implementing the plan.</p>		<p><i>This has been assessed to be a failure to comply with Schedule 3, Condition 40 of Project Approval MP 09_0062 by failing to implement the approved Biodiversity Management Plan to the satisfaction of the Secretary. Section 11.3.1 of the approved BMP refers to the MAC Land Management Procedure, which details control measures to be implemented during vegetation clearing. DPIE have issued an official caution in relation to this matter.</i></p> <p>Since then hard fences have been established to eliminate clearing outside the boundary. Equipment used for clearing has GPS site boundaries. Incident investigation was undertaken. There is a new fencing program in place for 2020, with these including fencing within the conservation areas. No further recommendation.</p>	
S3 C45	<p>Aboriginal Cultural Heritage Management Plan</p> <p>The Proponent shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with OEH, the Aboriginal community, Council and relevant landowners;</p> <p>(b) include the following for the management of Aboriginal heritage on-site:</p> <ul style="list-style-type: none"> • a plan of management for the Thomas Mitchell Drive Offsite Offset Area (identified in Condition 36); and • a program/procedures for: <ul style="list-style-type: none"> o salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area; o protection and monitoring of Aboriginal sites outside the project disturbance area, including the scarred trees and axe grinding grooves identified on the site; 	Admin Non - Compliance	<p><u>Preparation:</u></p> <p>a) Most recent version of the ACHMP was approved in August 2012. Evidence of consultation in Appendix 5.</p> <p>b) Evidence of Thomas Mitchell Drive plan. Covers other requirements of this condition with mostly in Section 5. Appendix 1 also illustrates the All Management Plan 'requirements of Schedule 5 Condition 2.</p> <p><u>Implementation:</u></p> <p>The previous IEA noted there were administrative non - compliances. These related to implementing the ACHMP.</p> <p>It is noted that the Thomas Mitchell Drive offset area has been fenced in accordance with the AHMP but the access protocols were not determined through consultation with the Aboriginal Stakeholders. This still appears to be the case, therefore this is a non - compliance.</p>	<p>Refer to Schedule 5 Condition 2 recommendation for all management plans.</p> <p>NC REC 7: Access protocols need to be determined through consultation with Aboriginal Stakeholders. Additional details on the outcome of this consultation will be provided in Section 5.5 of the ACHMP regarding access into the Thomas Mitchell Drive heritage offset area.</p> <p>NC REC 8: Further information is required including location and a procedure for moving and managing items within the Keeping Place. Details should be added about who is allowed to access the Keeping Place.</p>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
	<ul style="list-style-type: none"> o managing the discovery of any new Aboriginal objects or skeletal remains during the project; o maintaining and managing access to archaeological sites by the Aboriginal community; o ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site; and o management of the “Fairford 1” site in situ, including reasonable and feasible measures to mitigate impacts on this site, until an agreement can be reached with relevant Aboriginal stakeholders and OEHL, for its salvage and relocation. 		<p>The ACHMP has not been updated since 2012 to cover administrative non compliances and does not meet the review timeframes outlined in Schedule 5 Condition 4 of the Development Consent. It is noted in Section 10 of the 2019 Annual Review that:</p> <p><i>'AHMP is currently being reviewed and revised by Mt Arthur Coal, in consultation with OEHL, the Aboriginal community, MSC and relevant landowners. The DPIE have requested that the revised management plans for review be submitted sequentially to avoid overloading the reviewers'.</i></p> <p>Evidence of salvage reports, collections and storage of artefacts from the Annual Review. 2018 Annual Review states: during March 2018, salvage works were undertaken in the Edderton Road realignment area in collaboration with Gillian Goode from RPS archaeologists with the assistance of the registered Aboriginal parties. During January and February 2019, salvage works were undertaken to relocate the 'Fairford 1' grinding groove site from the Roxburgh pit area in collaboration with RPS archaeologists and with the assistance of the registered Aboriginal parties.</p> <p>There is little information in the ACHMP regarding the Keeping Place (Section 5.4.4). This is an important part of the ACHMP, with further information required.</p> <p>Based on the information provided to the Audit team there is no evidence of any incidents associated with Aboriginal Cultural Heritage.</p>	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
S5 C4	<p>Revision of Strategies, Plans and Programs</p> <p>Within 3 months of:</p> <p>(a) the submission of an annual review under condition 3 above;</p> <p>(b) the submission of an incident report under condition 7 below;</p> <p>(c) the submission of an audit under condition 9 below; or</p> <p>(d) any modification to the conditions of this approval,</p> <p>the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within four weeks of the review the revised document must be submitted to the Secretary for approval.</p>	Admin Non - Compliance	Management Plans have not been updated to meet this condition. Many of the approved management plans are from 2012 and 2013. The IEA team has reviewed evidence illustrating consultation with DPIE regarding management plans, however there is no formal feedback outlining that DPIE were satisfied with the delay in reviewing and submitting management plans.	<p>NC REC 9: In terms of the timings of updating management plans, this should be completed in accordance with Schedule 5 Condition 4 of the Development Consent.</p> <p>Refer to Schedule 5 Condition 2 recommendation for all management plans.</p>
S5 C10	Within 6 weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.	Admin Non - Compliance	The previous IEA was submitted on 1 February 2018. This site component was commenced on 13th October 2017. This is outside the six weeks. Historical non - compliance, therefore no further recommendation.	

Environment Protection Licence (EPL) 11457

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations																				
P1.3	<p>The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.</p> <table border="1"> <thead> <tr> <th colspan="4">Water and land</th> </tr> <tr> <th>EPA Identification no.</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>Discharge of saline water under the Hunter River Salinity Trading Scheme (HRSTS) Discharge Quality Volume Monitoring</td> <td>Discharge of saline water under the Hunter River Salinity Trading Scheme (HRSTS) Discharge Quality Volume Monitoring</td> <td>At outlet pipe from storage dam E298475 N6424784 marked as point 10 on plan titled "EPA - Plan of Premises Monitoring Points Drawing No.322403" dated 17/10/16 EPA ref DOC16/527575</td> </tr> <tr> <td>6</td> <td>Water quality and volume monitoring for discharges under the Hunter River Salinity Trading Scheme.</td> <td></td> <td>At weir structure downstream of outlet pipe from storage dam E298190 N6424890 marked as point 11 on plan titled "EPA - Plan of Premises Monitoring Points Drawing No.322403" dated 17/10/16 EPA ref DOC16/527575</td> </tr> <tr> <td>15</td> <td>Volumetric monitoring, water quality monitoring, discharge to utilisation area</td> <td>Volumetric monitoring, water quality monitoring, discharge to utilisation area</td> <td>STP discharge to effluent pond utilisation area E301257 N6420449 defined as point 22 on plan titled "EPA - Plan of Premises Monitoring Points Drawing No. 322403" dated 17/10/2016 EPA Ref DOC16/527575</td> </tr> </tbody> </table>	Water and land				EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	5	Discharge of saline water under the Hunter River Salinity Trading Scheme (HRSTS) Discharge Quality Volume Monitoring	Discharge of saline water under the Hunter River Salinity Trading Scheme (HRSTS) Discharge Quality Volume Monitoring	At outlet pipe from storage dam E298475 N6424784 marked as point 10 on plan titled "EPA - Plan of Premises Monitoring Points Drawing No.322403" dated 17/10/16 EPA ref DOC16/527575	6	Water quality and volume monitoring for discharges under the Hunter River Salinity Trading Scheme.		At weir structure downstream of outlet pipe from storage dam E298190 N6424890 marked as point 11 on plan titled "EPA - Plan of Premises Monitoring Points Drawing No.322403" dated 17/10/16 EPA ref DOC16/527575	15	Volumetric monitoring, water quality monitoring, discharge to utilisation area	Volumetric monitoring, water quality monitoring, discharge to utilisation area	STP discharge to effluent pond utilisation area E301257 N6420449 defined as point 22 on plan titled "EPA - Plan of Premises Monitoring Points Drawing No. 322403" dated 17/10/2016 EPA Ref DOC16/527575	Admin Non - Compliance	<p>Surface Water Monitoring Program refers to monitoring at the HRSTS discharge point SW28 (being EPL Point 6). Monitoring is only required during discharge. 2018, 2019 and 2020 Annual Reviews and Annual Returns state that there were no HRSTS discharges during the audit period. As reported in the 2018 Annual Review, the EPL point 15 flow meter and continuous logger were identified to have been inactive for an unknown period of time. As there was no evidence of discharge this has been called an administrative NC.</p> <p>Note - point 5 is the HRSTS discharge point and not a monitoring point.</p> <p><u>Observation:</u> EPL has been varied 3 times in the audit period. No updates have been made to the Surface Water Management Plan or Surface Water Monitoring Program in this time. This should have been completed for each update.</p> <p><u>Observation:</u> EPL Point 15 not referred to in Surface Water Management Plan or Monitoring Program. However this is managed under a separate onsite procedure.</p> <p><u>Observation:</u> The 2019 Annual Return reports non - compliance due to only 3 quarterly samples being collected for EPL point 15.</p>	See Section 7 for Improvement Recommendations.
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O3.1	<p>Dust</p> <p>The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.</p>	Non Compliant (Low)	<p>MAC were issued with a show cause notice from the EPA with regard to excessive wheel dust generation on 14 November 2017. Following receipt of comments the EPA issued an Official Caution for failure to comply with condition O3.1 of the EPL.</p> <p>Non - compliance was self - reported in the FY2018 Annual Review.</p> <p>Refer condition 24 of PA 09_0062 for further recommendations.</p>	No further recommendation																				

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations								
O3.2	<p>Dust Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.</p>	Non Compliant (Low)	<p>During the audit period MAC were issued two Penalty Notices from the EPA for failure to comply with condition O3.2 of the EPL due to:</p> <ul style="list-style-type: none"> - Excessive wheel dust generation on 14 November 2017. - Dust generated from the mine being visible over Denman and Edderton Roads on 26 October 2018. <p>The non - compliances were self - reported in the FY2018 and FY 2019 Annual Reviews. Refer condition 24 of PA 09_0062 for further recommendations.</p>	No further recommendation.								
M2.2	<p>Air Monitoring Requirements</p> <p>POINT 11,12,13,14</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>PM10</td> <td>micrograms per cubic metre</td> <td>Continuous</td> <td>AM-22</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Continuous	AM-22	Admin Non - Compliance	<p>As reported in the 2018 and 2019 Annual Returns due to instrument faults data capture was less than 90% at: Monitoring point 13 (86%) and 11 (85%) in 2018 and Monitoring point 12 (86%) and 14 (78%) in 2019.</p> <p>Based on site discussions and interviews, it is understood that MAC are working on procedures, including triggers and alerts when monitoring equipment goes off - line to decrease the time for instrument faults to be identified and to increase the data capture.</p>	NC REC 10: Continue to investigate methods of improving the reliability of continuous and real time monitoring systems to increase data capture.
Pollutant	Units of measure	Frequency	Sampling Method									
PM10	micrograms per cubic metre	Continuous	AM-22									
M2.3	<p>POINT 15</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Faecal Coliforms</td> <td>colony forming units per 100 millilitres</td> <td>Quarterly</td> <td>Grab sample</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Faecal Coliforms	colony forming units per 100 millilitres	Quarterly	Grab sample	Admin Non - compliance	<p>As reported in the 2019 Annual Return, only 3 quarterly samples were taken in 2019 with no sample collected for the fourth quarterly (July 2019).</p>	NC REC 11: Ensure all sampling undertaken to required frequencies for LDP 15.
Pollutant	Units of measure	Frequency	Sampling Method									
Faecal Coliforms	colony forming units per 100 millilitres	Quarterly	Grab sample									

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations												
M8.1	<p>For each discharge point or utilisation area specified below, the licensee must monitor:</p> <p>a) the volume of liquids discharged to water or applied to the area;</p> <p>b) the mass of solids applied to the area;</p> <p>c) the mass of pollutants emitted to the air;</p> <p>at the frequency and using the method and units of measure, specified below.</p> <p>POINT 6</p> <table border="1"> <thead> <tr> <th>Frequency</th> <th>Unit of Measure</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Continuous during discharge</td> <td>megalitres per day</td> <td>Weir structure and level sensor</td> </tr> </tbody> </table> <p>POINT 15</p> <table border="1"> <thead> <tr> <th>Frequency</th> <th>Unit of Measure</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Continuous during discharge</td> <td>kilolitres per day</td> <td>Flow meter and continuous logger</td> </tr> </tbody> </table>	Frequency	Unit of Measure	Sampling Method	Continuous during discharge	megalitres per day	Weir structure and level sensor	Frequency	Unit of Measure	Sampling Method	Continuous during discharge	kilolitres per day	Flow meter and continuous logger	Admin Non - compliance	As reported in the 2018 Annual Review, the EPL point 15 flow meter and continuous logger were identified to have been inactive for an unknown period of time. Based on discussions with MAC there is a process in place now to ensure the meter is being checked. No further recommendation.	No further recommendation
Frequency	Unit of Measure	Sampling Method														
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Continuous during discharge	kilolitres per day	Flow meter and continuous logger														
M9.1	<p>To determine compliance with conditions L6.2 and L6.3:</p> <p>a) Airblast overpressure and ground vibration levels must be measured and electronically recorded for monitoring points 7, 8, 9 and 10 for the parameters specified in Column 1 of the table below; and</p> <p>b) The licensee must use the units of measure, sampling method, and sample at the frequency specified opposite in the other columns.</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units of Measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Airblast Overpressure</td> <td>Decibels (Linear Peak)</td> <td>All Blasts</td> <td>Australian Standard AS 2187.2-2006</td> </tr> <tr> <td>Ground Vibration Peak Particle Velocity</td> <td>millimetres/second</td> <td>All Blasts</td> <td>Australian Standard AS 2187.2-2006</td> </tr> </tbody> </table>	Parameter	Units of Measure	Frequency	Sampling Method	Airblast Overpressure	Decibels (Linear Peak)	All Blasts	Australian Standard AS 2187.2-2006	Ground Vibration Peak Particle Velocity	millimetres/second	All Blasts	Australian Standard AS 2187.2-2006	Non Compliant (Low Risk)	<p>On 12 February and 5 March 2019 airblast overpressure and ground vibration results were not recorded at the Denman Road West (BP09) or Yammanie North (BP10) monitors for two blast events.</p> <p>The non - compliance was self - reported in the FY2019 Annual Review. This has since been rectified, therefore no further recommendation.</p>	No further recommendation
Parameter	Units of Measure	Frequency	Sampling Method													
Airblast Overpressure	Decibels (Linear Peak)	All Blasts	Australian Standard AS 2187.2-2006													
Ground Vibration Peak Particle Velocity	millimetres/second	All Blasts	Australian Standard AS 2187.2-2006													

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
R4.1	<p>HRSTS Reporting</p> <p>The licensee must compile a written report of the activities under the Scheme for each scheme year. The scheme year shall run from 1 July to 30 June each year. The written report must be submitted to the EPA's regional office within 60 days after the end of each scheme year and be in a form and manner approved by the EPA. The information will be used by the EPA to compile an annual scheme report.</p>	Admin Non - compliance	<p>Evidence of submission of 2018, 2019 and 2020 sighted.</p> <p>2018 Submission not completed until 2 October 2018, outside of required 60 day reporting period (required by end August 2018). No further recommendation as it has since been completed.</p>	No further recommendation
Mitigation Measures and Management (Section 4) from Mt Arthur Coal Open Cut Modification - Environmental Assessment 2013				
Soils	An inventory of designated areas and available soil would be maintained to ensure adequate topsoil materials are available for planned rehabilitation activities.	Non Compliant (Low Risk)	<p>There is no site wide soil balance. This needs to be undertaken as soon as possible in order to manage the soil resources effectively in regard to meeting required soil depth across future rehabilitation areas. Furthermore, in the event of a site deficit, work needs to be undertaken for alternatives. Soil stockpiles were observed to require herbicide treatments and signage.</p> <p>Based on the findings of the rehabilitation specialist, a complete soil balance is required for the site. This is urgent and critical to long term rehabilitation planning and future costings. See rehabilitation recommendations for proposed changes to soil management.</p>	Refer Schedule 3 Condition 44 of PA
Groundwater	Groundwater monitoring at the Mt Arthur Coal Mine would continue to be undertaken in accordance with the Ground Water Monitoring Program (BHP Billiton, 2012e). The Ground Water Monitoring Program would be reviewed and, if necessary, revised to incorporate the Modification.	Non Compliant (Low Risk)	Groundwater monitoring FY2019 was not undertaken following the recommendations in the GWMP, rather it followed the revised monitoring and triggers recommended in interim monitoring program (2018/2019 Annual monitoring review) suggesting a number of changes. This resulted in non - compliances in monitoring frequency which changed to quarterly instead of two monthly, water quality data not being collected for required sites and reducing the number of water quality sampling events. Monitoring reported in FY20 report was in accordance with GWMP .	NC REC 12: Surface Water and Groundwater Response Plan needs to be updated if the proposed and submitted SWMP is approved by DPIE.

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>Revised <i>Site Water Management Plan with Groundwater Monitoring Plan</i> was submitted to DPI in 2020 for comment.</p> <p><i>Surface Water and Groundwater Response Plan</i> needs to be updated if the proposed and submitted SWMP is approved by DPIE. SWMP needs to have all baseline groundwater quality parameters presented in tabulated or graphed form, at present only EC and pH are presented. These parameters are collected as part of the monitoring suite and baseline data are required for later comparison.</p>	
Surface and Groundwater Response	<p>The Surface and Groundwater Response Plan (BHP Billiton, 2012f) would be reviewed and, if necessary, revised to incorporate the Modification. Notwithstanding the negligible effects due to the Modification predicted at surrounding private bores (Appendix B), consistent with the Project Approval for the Mt Arthur Coal Mine – Open Cut Consolidation Project Statement of Commitments:</p> <p>In the event of interruption to water supply resulting from the Project, an alternative water supply will be provided, until such interruption ceases.</p> <p>The process for identifying and compensating the interruption to water supply resulting from Mt Arthur Coal operations would be in accordance with the “protocol for adverse affects to nearby users” outlined in the Surface and Groundwater Response Plan (BHP Billiton, 2012f).</p>	Non Compliant (Low Risk) -	<p>No review of <i>Surface and Groundwater Response Plan</i> is proposed by Mt Arthur. No discussion in the annual reports relating to private bores and potential interruption to water supply resulting from Mt Arthur operation is assumed to indicate no complaints were received from private bore owners</p>	<p>As per Schedule 3 Condition 34 recommendation.</p> <p>Annual reporting needs to make a record of no complaints from the private bore owners.</p>
Groundwater	<p>In addition, notwithstanding the minor impacts to alluvium associated with the Modification, consistent with the Project Approval for the Mt Arthur Coal Mine – Open Cut Consolidation Project Statement of Commitments:</p> <p>Mt Arthur Coal will continue to monitor hydro-geomorphological conditions and scrutinise for</p>	Non Compliant (Low Risk) -	<p>Section 7.4 of the Annual review FY2019 has assessed the hydro-geomorphological conditions related to cutoff wall. This report states that:</p> <p>depressurisation observed in the underlying Permian coal seam has not significantly impacted upon; and groundwater levels within the alluvium.</p>	<p>NC REC 13: It is recommended that the groundwater model be verified such that the predicted drawdown reflects the observed drawdown and that hydro-geomorphological conditions can be assessed accurately.</p>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
	evidence of any groundwater ingress or endwall instability indicators as it progresses the previously approved mining towards the Hunter River Alluvials. Mining (other than that already approved in the MAN [Mt Arthur North] EIS) will not extend beyond a nominal 150 m buffer zone from the Hunter River Alluvials until agreement is reached with DWE regarding the installation of a lower permeability barrier along the point of connections of mining and the alluvium or other appropriate safeguards.		However, comparison of data with model, indicated that model under predicted drawdown compared to observed data. The report suggested that the model be updated. Report recommends ongoing monitoring of hydro-geomorphological conditions.	
Aboriginal Heritage	The existing Aboriginal Heritage Management Plan would be updated in consultation with the Aboriginal community and the OEH to specify management and mitigation measures relevant to the Modification area.	Admin Non - compliance	Most recent version of the ACHMP was approved in August 2012. The ACHMP has not been updated since 2012. It is noted in Section 10 of the 2019 Annual Review that: <i>'AHMP is currently being reviewed and revised by Mt Arthur Coal, in consultation with OEH, the Aboriginal community, MSC and relevant landowners'</i> . Comments were previously provided about updating management plans, hence no specific recommendation.	
Mining Leases				
	No non – compliances identified in any mining leases.			

7 ADDITIONAL RECOMMENDED ACTIONS

Additional recommendations relating to compliant conditions (or not relating to a non – compliance) are outlined within **Table 11**.

Table 11 Additional Recommendations

Aspect	Condition Reference	Improvement REC Number	Recommendation
Demolition/Annual Review	S2 C10 of PA	IMP REC 1	Details of demolition should be included in the Annual Review going forward.
Noise Monitoring Locations	S3 C2	IMP REC 2	When a review of the Noise Management Plan is triggered, the monitoring locations table should be updated to provide a reference between the Project Approval and EPL monitoring identification locations.
Traffic Noise Criteria	S3 C6	IMP REC 3	Include reference to the traffic noise criteria and compliance with them in the Annual Reviews. The Annual Review should include information about when the most recent traffic noise assessment was undertaken and when the next one is due.
Blasting Hours	S3 C11	IMP REC 4	Include day of week in blast database addition to date to confirm blasting does not occur on Sundays or public holidays.
Air Quality – Impact Assessment Criteria	S3 C20	IMP REC 5	Reporting of exceedances' of criteria, with evidence to be provided by MAC to support compliance with the 'all reasonable and feasible avoidance and mitigation measures' component of this air quality management condition.
Air Quality Management Plan	S3 C24	IMP REC 6	We recommend that an independent air quality specialist is engaged to complete a quality check and review of the real time air quality management system. This includes a review of the dust contributions from the site.
Rehabilitation Management Plan	S3 C44	IMP REC 7	Undertake a complete site soil balance. This is urgent and critical to long term rehabilitation planning and future costings.
Rehabilitation Management Plan	S3 C44	IMP REC 8	Soil stockpiles should be either nominated as long-term or short-term stockpiles. Long-term stockpiles should be shaped and seeded. Stockpiles were observed to not be shaped or seeded with cover crop or pastures. Soil stockpiles should be sign posted and the locations updated on a GIS based program (created by the soil balance in Point 1). No stockpile signage was observed.
Rehabilitation Management Plan	S3 C44	IMP REC 9	Soil stockpiles should be managed for weeds to avoid an increase to the weed seed bank. Stockpile was infested with weeds creating a weed seed bank for future management.
Visual Amenity and Lighting	S3 C52	IMP REC 10	Recommend a Lighting Audit to assess against Australian Standards AS 4282 - 1997. This will cover fixed exterior lighting and interior lighting that could impact the outdoor environment.
Waste	S3 C53	IMP REC 11	Ensure all contractor areas are inspected as part of general inspections as these are areas of higher risk of poorer environmental management. Ensure future oil storage and servicing areas are within bunded areas. This recommendation currently relates to the EMECO and Pit Master Areas only.
Waste	S3 C53	IMP REC 12	Consider completing a review of segregation requirements and labelling of bins across site to identify improvement opportunities.

Aspect	Condition Reference	Improvement REC Number	Recommendation
Waste	S3 C53	IMP REC 13	Ensure inspections are completed at a higher interval at the Thiess Workshop as the area does not have a setup to trap potentially contaminated water/liquids prior to it leaving the Thiess workshop area. Additional controls could be put in place during servicing within this workshop to prevent leakage of hydrocarbons.
Management Plans	S5 C2	IMP REC 14	Cross referencing tables containing the relevant conditions should be added to Management Plans which have not received a recent update. This would include all relevant conditions of the Development Consent and EPL and commitments from the 2013 Environmental Assessment.
Incident Reporting	S5 C7	IMP REC 15	Consider improving the information provided in incident reports, this may include the addition of photographs where appropriate, consistent headings and layouts for reports. This will ensure consistency across incident reporting.
Discharge Monitoring Points	P1.3 of EPL	IMP REC 16	Review and update Surface Water Management Plan and Monitoring Program to reflect the EPL variation.
Blast Monitoring Locations	P1.4 of EPL	IMP REC 17	Clearly identify the EPL monitoring locations and ID within the BMP and Annual Reviews (ie BP04 [EPL ID 7])
Pollution of Waters	L1.1 of EPL	IMP REC 18	Implement the PRP for water pipelines in consultation with the EPA.
Blasting	L6.1 of EPL	IMP REC 19	Include day of week in blast database addition to date to confirm blasting does not occur on Sundays or public holidays.
Annual Review	CCL 396 Condition 2	IMP REC 20	Include a cross referencing table in the Annual Review outlining the conditions relevant to the Development Consent and Mining Lease.

8 CONCLUSION

The IEA covered the requirements of Schedule 5 Condition 9 of the Project Approval (PA 09-0062).

The IEA period is 1 July 2017 to 30 June 2020. This is the three - year period based on the date of the previous IEA. The IEA also included a series of specialists including surface water, groundwater, noise/blast, air and rehabilitation.

The IEA generally identified a high level of compliance with no high or medium risks identified during the audit. Some issues such as 'air quality' caused several non – compliances. In summary the following non – compliances were observed:

- There were eight low risk non – compliances and four administrative non – compliances for the Project Approval;
- There were three low risk non – compliances and four administrative non – compliances for the Environment Protection Licence;
- There were four low risk non – compliances and one administrative non – compliances for the Mitigation Measures and Management (Section 4) from Mt Arthur Coal Open Cut Modification - Environmental Assessment 2013;

Key findings and recommendations are outlined in **Section 6 and 7**.

The site visit concluded that the MAC Mine is generally compliant and well maintained, with highlights including:

- There has been a recent increase in rehabilitation and closure targets;
- Additional funding has been provided for biodiversity management;
- Sophisticated real time air quality and noise management system;
- The site has generally been compliant with key monitoring criteria;
- There has been a continuity of environmental staff during the IEA period. The IEA team is satisfied the site is sufficiently resourced in regard to environmental management;
- There was a very high degree of participation from the MAC team and contractors during this IEA which illustrates the importance of environment and community compliance management at the site;
- The annual reporting (Annual Reviews) have generally been to a high standard; and
- The field performance of the site was excellent. This included no major dust issues in the field as well as excellent erosion and sediment control management.



APPENDIX A

Photographs

Note, Appendix C Rehabilitation Specialist Report includes photographs relating to rehabilitation and closure.





Photo 1: Erosion in Visual Bund. It is noted this area has plans for reworking.



Photo 2: Erosion and sediment was generally very good. Area of erosion identified on the edge of an older haul road.



Photo 3: Effective Dust Management at the site including the use of watercarts



Photo 4: Dust was being tracked along one haul road during the site inspection. Photo taken prior to watercart usage.



Photo 5: Dust from haul road was managed effectively following the use of a water cart.



Photo 6: Minor oil staining in a contractor area.



Photo 7: Minor oil staining in a contractor area.



Photo 8: Waste oil not being stored within bunds in the contractor area.



Photo 9: Oil staining within the contractor area.



Photo 10: Area of galenia within a disturbed area of the site.



Photo 11: Correct storage of hydrocarbons at the pit top (near workshop area)



Photo 12: Correct storage of hydrocarbons at the pit top (near workshop area)



Photo 13: Oil filters were stored within the timber only bin within the Thies operational area

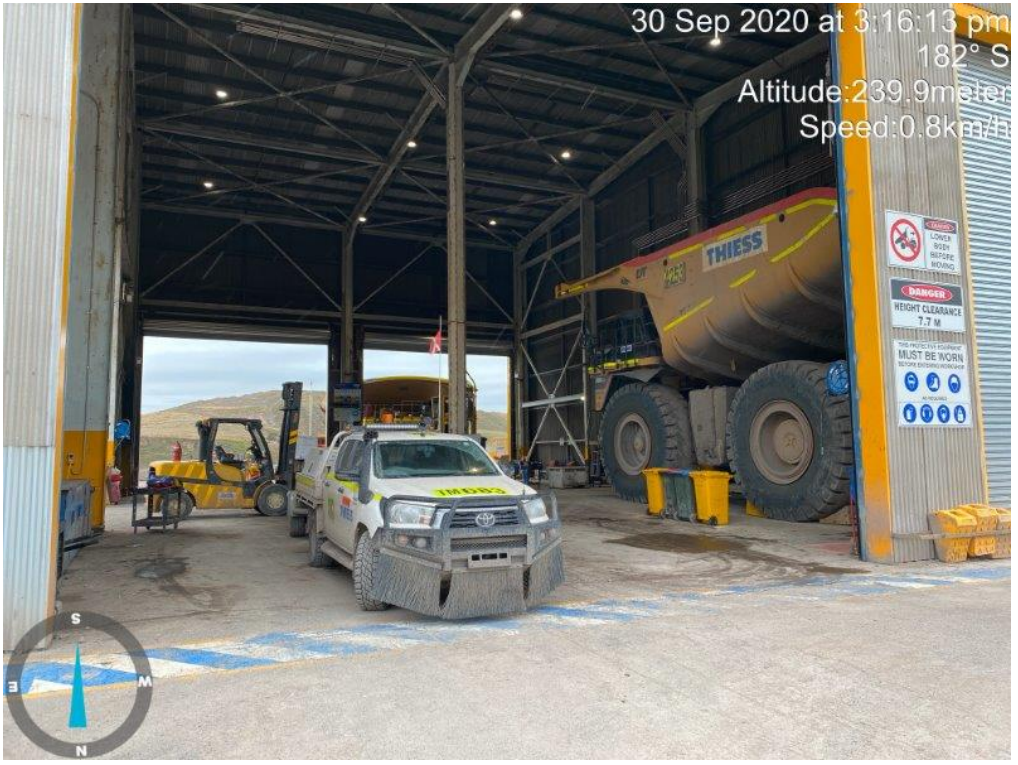


Photo 14: There is no bunding within the Thies Workshop

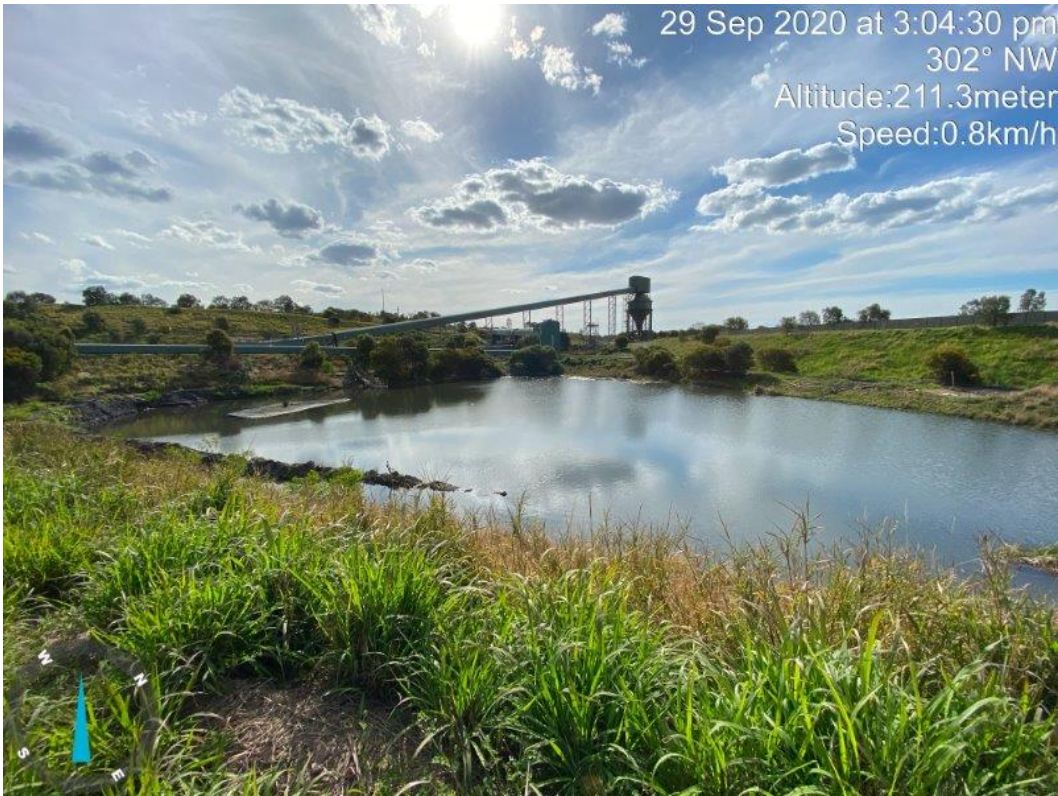


Photo 15: Dams appeared to be well designed and maintained with minimal erosion



Photo 16: Minor water leak of a pipeline at the Thiess operational area. This is being contained onsite

APPENDIX B

Compliance Spreadsheet



Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
14	<p>If the Proponent receives a written request from the owner of any privately-owned land within 3 kilometres of any approved open cut mining pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:</p> <ul style="list-style-type: none"> establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and identify measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and <p>(b) give the landowner a copy of the new or updated property inspection report.</p> <p>If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Secretary for resolution.</p>	Compliant	<p>Evidence of a detailed file containing a history of correspondence regarding a property inspection. This included details of correspondence with the resident and DPIE.</p> <p>The information in the file states that as of 3 August 2020, MAC wrote to the neighbour that "we confirm that we will not proceed with undertaking the property investigation. We will wait until we receive formal instruction from the Secretary on how to proceed with this matter".</p> <p>Based on the process followed by MAC, the site has been compliant with this condition in terms of following the required steps.</p>	
Property Investigations				
15	<p>If any landowner of privately-owned land within 3 kilometres of any approved open cut mining pit on site (including the whole of the Racecourse Road area and the area southwest of Skellatar Stock Route), or on any other land where the Secretary agrees that a property inspection is warranted claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then the Proponent shall within 3 months of receiving this claim:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and</p> <p>(b) give the landowner a copy of the property investigation report.</p> <p>If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damage to the satisfaction of the Secretary.</p> <p>If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.</p>	Compliant	As per the condition above.	
Operating Conditions				
16	<p>During mining operations on site, the Proponent shall:</p> <p>(a) implement best blasting practice to:</p> <ul style="list-style-type: none"> protect the safety of people and livestock in the area surrounding blasting operations; protect public or private infrastructure/property in the area surrounding blasting operations from blasting damage; and minimise the dust and fume emissions from blasting at the Mt Arthur mine complex; <p>(b) ensure that blasting on the site does not damage heritage sites, including Edinglassie, Rous Lench, and Balmoral;</p> <p>(c) co-ordinate the timing of blasting on site with the timing of blasting at the Drayton and Bengalla coal mines to minimise the potential cumulative blasting impacts of the three mines; and</p> <p>(d) operate a suitable system to enable the general public and surrounding landowners and tenants to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Secretary.</p>	Non-Compliant (Low Risk)	<p>a) Evidence of Blast Management Plan and other MAC Blasting Procedures. Details of blasting results are outlined in the Annual Review.</p> <p>Evidence of Blast Matrix by Todorovski Air Sciences dated 26 August 2020. This looks at blasting impacts (including potential blast fumes) based on different meteorological conditions.</p> <p>Evidence of blast summaries - eg total area, blast design and results.</p> <p>Evidence of Blast results from the Ecotech system.</p> <p>There was a reportable blast fume event that occurred at 10:37am on 17 April 2019. See Schedule 3 Condition 18 for further details about this event. MAC are therefore non-compliant with this part of the condition. Further mitigation measures have been put in place regarding blast fume management therefore there are no further recommendations regarding this aspect.</p> <p><i>Minimise the dust and fume emissions from blasting at the Mt Arthur mine complex.</i></p> <p>b) There has been no evidence of damage to these heritage sites from blasting. There is a MAC-ENC-PRG-004 Edinglassie and Rous Lench Heritage Management Program. Section 3.2 states: <i>The assessment of blast vibration vulnerability conducted at Edinglassie homestead concluded that 'blasting vibrations experienced at Edinglassie at present do not appear to be presenting any significant risk of causing building damage to sound fabric, particularly where dominant ground wave frequency is 10 Hz. The EA identified this will be within blast limits, hence no further monitoring is proposed.</i></p> <p>c) Evidence of co-ordinating blasts with other mines, including screenshots of the Muswellbrook Council website. Evidence of email to Blast Hotline, proposing the shot details.</p> <p>d) General public is notified by Blast Notification Phone and Email List as well as the Council website.</p>	
16A	<p>The Proponent shall not undertake blasting on site within 500 metres of any public road or any land outside the site not owned by the Proponent unless the Proponent has:</p> <p>(a) demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the infrastructure or land without compromising the safety of people or livestock or damaging the infrastructure and/or other buildings and structures; and</p> <p>(b) updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the infrastructure or land; or</p> <p>(c) a written agreement with the relevant infrastructure owner or landowner to allow blasting to be carried out closer to the infrastructure or land, and the Proponent has advised the Department in writing of this agreement.</p>	Compliant	<p>a) Evidence of Blast Management Plan and other MAC Blasting Procedures. Details of blasting results are outlined in the Annual Review. General public is notified by Blast Notification Phone and Email List as well as the Council website. Evidence of road closure notifications by email.</p> <p>b) See Section 4 and 6.4 of the Blast Management Plan.</p> <p>c) The site has written agreements regarding blasting with RMS, Ausgrid and Telstra.</p>	
Blast Management Plans				
17	<p>The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this approval, including:</p> <ul style="list-style-type: none"> detailed demonstration that blasting within the blast control area shown in Appendix 5 can be undertaken in a manner that will meet the blast impact assessment criteria in Table 5 at all times; and a detailed blast fume management strategy to minimise and manage blast fumes; <p>(b) include a road closure management plan, prepared in consultation with the applicable roads authority, that includes provisions for:</p> <ul style="list-style-type: none"> minimising the duration of closures, both on a per event basis and weekly basis; avoiding peak traffic periods as far as practicable; and coordinating with neighbouring mines to minimise the cumulative effect of road closures; <p>(c) include a blast monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions of this approval; and</p> <p>(d) include the requirement for Mt Arthur Coal to actively participate in Muswellbrook Council's online blasting portal.</p>	Non-Compliant (Low Risk)	<p><u>Preparation:</u> It was resubmitted for approval in March and April 2018. Updated 2018 version is available on the website.</p> <p>a) Section 5. b) Section 4. c) Section 6. d) Section 2.4.</p> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> Evidence of blast notification and road closures; Blasts recorded in the Annual Review; Evidence of blasting recorded on the portal. Evidence of fume management being recorded in blasts on blast recording spreadsheet. Blasting completed by training specialists. Figure 3 outlines the Blast Fume Management Strategy; <p><u>Blast Fume Event</u> Key aspects of the incident: - Blasting occurred at 10:40am on 17 April 2019; - This was completed by as contractor; - The EPA contacted MAC at 11:24am on 17 April to outline a complaint has been received and required an incident report by 24 April 2019. MAC provided some information by email (not an official report) on 19 April 2019. - MAC notified DPIE at 9:26am on 19 April 2019. Additional information was provided to DPIE by email on 11:13am on 24 April 2019.</p> <p>A further incident report was provided to DPIE on 10 May 2019. This original incident report to DPIE was brief and didn't contain any photos of the fume incident. The report stated that <i>'Upon firing the blast at 10:30am on 17 April 2019 NOx fume was generated and given a 4C rating by the BHP appointed shottirer.'</i></p> <p>The incident report to DPIE dated 10 May 2020 stated: <i>The following key findings were identified upon investigation:</i> 1. Pre blast checklist did not identify level of fume as a risk; 2. Product selection in the area was not designed specifically for blasting in pre-strip and clay materials; 3. The blast was located in a pre-strip area with high clay content, resulting in an incomplete combustion reaction in the blast column upon firing.</p> <p>Additional training was completed for blast contractors. The incident report stated that the pre - blast checklist did not identify the level of blast fume as a risk. Based on the fact that the shot had been sleeping for 10 days and there was clay material in the blasting area, the blast fume risk should have been high.</p> <p>It is noted that the initial blast fume rating in the email to DPIE on 19 April stated the blast was a 4A. The 10 May 2020 incident report stated the shot had a fume rating of 4C, with the original 4A rating being incorrect. Based on the incident report the fume dissipated and did not leave the mining lease. The Blast Fume rating system (ratings and example photos) from the <i>Code of Good Practice: Prevention and Management of Blast Generated NOx Gases in Surface Blasting, Edition 2, (AEISG, August 2011)</i>, is included in the internal <i>PRP-PRO 106 Pre Blasting Approval</i>.</p> <p>Based on the information within the Blast Management Plan and the blast fume incident report, this was preventable. Therefore non-compliant for implementation of the Blast Management Plan. Further mitigation measures have been put in place regarding blast fume management therefore there are no further recommendations regarding this aspect.</p>	<p>Refer to Schedule 5 Condition 2 recommendation for all management plans.</p> <p>Refer to Schedule 5 Condition 7 recommendation regarding incident reporting.</p>

AIR QUALITY

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action												
	<p>Table 12: Land subject to additional air quality mitigation upon request</p> <table border="1"> <thead> <tr> <th>Receiver No.¹</th> <th>Receiver</th> </tr> </thead> <tbody> <tr> <td>91²</td> <td>Private landholder</td> </tr> <tr> <td>94²</td> <td>Private landholder</td> </tr> <tr> <td>187</td> <td>Private landholder</td> </tr> <tr> <td>200</td> <td>Private landholder</td> </tr> <tr> <td>201</td> <td>Private landholder</td> </tr> </tbody> </table> <p>Notes: ¹ To interpret the locations referred to in Table 12, see the applicable figure in Appendix 4. ² These receivers shall maintain their rights to mitigation upon request until 31 December 2016, when the EA predicts that the project will comply with the relevant criteria at these properties.</p>	Receiver No. ¹	Receiver	91 ²	Private landholder	94 ²	Private landholder	187	Private landholder	200	Private landholder	201	Private landholder	Not Triggered	Based on the information provided by MAC this has not been triggered.	
Receiver No. ¹	Receiver															
91 ²	Private landholder															
94 ²	Private landholder															
187	Private landholder															
200	Private landholder															
201	Private landholder															
Mine-owned Land																
22A	The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Mt Arthur mine complex do not cause exceedances of the criteria listed in Tables 9, 10 and 11 at any occupied residence on mine-owned land (including land owned by another mining company) unless: (a) the tenant and landowner (if the residence is owned by another mining company) have been notified of any health risks associated with such exceedances in accordance with the notification requirements under schedule 4 of this approval; (b) the tenant of any land owned by the Proponent can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice and cause; (c) air quality monitoring is regularly undertaken to inform the tenant or landowner (if the residence is owned by another mining company) of the particulate emissions at the residence; and (d) data from this monitoring is presented to the tenant and landowner in an appropriate format for a medical practitioner to assist the tenant and landowner in making informed decisions on the health risks associated with occupying the property, to the satisfaction of the Secretary.	Not Triggered	Based on the information provided by MAC this has not been triggered. No evidence of exceedances at these properties during IEA period.													
Operating Conditions																
23	The Proponent shall: (a) implement best practice air quality management, including all reasonable and feasible measures to minimise offsite odour, fume and dust emissions of the Mt Arthur mine complex; (b) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site; (c) minimise any visible air pollution generated by the Mt Arthur mine complex; (d) minimise the surface disturbance on the site; (e) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval; (f) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d above under Table 8); and (g) co-ordinate air quality management at the Mt Arthur mine complex with air quality management at the Drayton, Mangoola and Bengalla mines to minimise cumulative air quality impacts, to the satisfaction of the Secretary.	Non-Compliant (Low Risk)	<p>a) Evidence of air quality monitoring system and actions in place during the field visit. It should be noted that: - MAC received a penalty notice for excessive wheel generated dust on 14 November 2017 based on an EPA inspection. A Penalty Notice of \$15,000 and an Official Caution were issued by the EPA for the alleged breach of 64(1) of the POEO Act, being failure to comply with condition O3.1 of the MAC EPL that occurred on 17 November 2017. - The DPIE provided a show cause notice to MAC for inadequate response to real - time air quality alarms on 14-15 December 2017. - Reporting of HVAS Exceedances - HVAS exceedance results from December 2018 were not individually investigated and reported to the DPIE. The reason for not reporting was based on the ongoing liaison with DP&E regarding the planned removal of HVAS equipment from the AQMP. - MAC received a Penalty Notice from the EPA for 'Dust over Denman and Edderton Roads on 26 October 2018'. The letter was dated 23 July 2019. - Air quality investigation reports were submitted to DPIE for 10 and 11 of December 2019. The reports showed that there were no recorded actions in response to a level 3 alarm from the dust monitoring system.</p> <p>b) Evidence of recording energy usage. No issues identified;</p> <p>c) The site inspection during the IEA noted effective dust management. Looking into two of the pits, evidence was seen of water trucks being used and speeds being minimised to reduce dust. In the afternoon some higher levels of dust were seen along the haul road near the CHPP workshop. It was noted and the MAC Specialist Environment 'called up on the UHF radio and a water truck was already on its way to water the haul road. This was a very quick action and immediately reduced dust. Dust was being managed effectively at the Mount Arthur South area at the time of the site inspection.</p> <p>There were times during the IEA period where the site did not effectively minimise visual air pollution effectively. See sub condition a). This has resulted in a <u>Non - Compliance</u> for this condition.</p> <p>d) Evidence from the Annual Reviews and field inspection indicates surface disturbance has generally been minimised.</p> <p>e) Evidence of real time and predictive system. This system that came in two years ago appears to have assisted in improving dust management at MAC.</p> <p>f) See sub condition a)</p> <p>g) Evidence of co-ordination through meetings with other sites.</p> <p>MAC are <u>non - compliant</u> for this condition based on the PINS and show cause notices from the EPA and DPIE.</p>													
Air Quality Management Plan																
24	The Proponent shall prepare and implement an Air Quality Management Plan for the Mt Arthur mine complex to the satisfaction of the Secretary. This plan must: (a) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this approval; (b) describe the air quality management system; (c) include an air quality monitoring program that: - adequately supports the air quality management system; - evaluates and reports on the: - the effectiveness of the air quality management system; - compliance with the air quality criteria; - compliance with the air quality operating conditions; and - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.	Non-Compliant (Low Risk)	<p><u>Preparation:</u> The most recent AQMP was approved on 25/11/2019 by DPIE. The prior version was approved on 27/5/2013 and covered over half of this IEA period. The assessment of preparation requirements has been completed against the 2019 document. a) Section 3. b) Section 2 and 3. c) Section 4.</p> <p><u>Implementation:</u> - Field evidence - The site inspection during the IEA noted effective dust management at the time of the site inspection. - Evidence of air quality monitoring - results and Annual Reviews; - Evidence of predictive system; - Evidence of changing operations based on the real time system. This system that came in two years ago appears to have assisted in improving dust management at MAC. This system enables MAC to determine the contribution of dust from the site, with this being a manual system prior to the current system. Evidence of predicting areas where dust would be an issue during a shift. It is noted that a company has been engaged to assist with incorporating data validation. The IEA team also notes that an air quality specialist was involved with the initial establishment of the system. However it would be preferable if an air specialist was engaged for a quality check of the real time system and dust contributions from site.</p> <p>However there is evidence of the site not effectively implementing the AQMP as per the incidents identified in Schedule 3 Condition 23. Therefore MAC is <u>non - compliant</u> for implementing the AQMP.</p>	Refer to Schedule 5 Condition 2 recommendation for all management plans. Improvement REC 6: We recommend that an independent air quality specialist is engaged to complete a quality check and review of the real time air quality management system. This includes a review of the dust contributions from the site.												
METEOROLOGICAL MONITORING																
25	During the life of the project, the Proponent shall ensure that there is a suitable meteorological station in the vicinity of the site that: (a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, unless a suitable alternative is approved by the Secretary following consultation with the EPA.	Compliant	<p>Evidence of meteorological monitoring and use of the predicted monitoring system. Results are outlined in the Annual Reviews. Evidence of meteorological station in the field. Evidence of calibration and maintenance certificates.</p> <p>Mt Arthur Coal's primary statutory real-time meteorological station located at the mine's industrial area (WS09) is an essential component of the operation's environmental monitoring system. Wind speed, wind direction, temperature, rainfall, solar radiation and humidity data is collected at 15 minute intervals and relayed using radio telemetry.</p> <p>A secondary statutory real-time meteorological station, located off site to the north west of the mine at Wellbrook (WS10), also provides representative weather data for the mine site, including prevailing wind conditions, and is used in conjunction with WS09 to determine the presence and strength of temperature inversions in the local atmosphere as part of the pre-blast environmental assessment.</p> <p>Both statutory meteorological stations comply with the Australian Standard 2923-1987 Ambient Air – Guide for measurement of horizontal wind for air quality applications and the EPA's 2017 Noise Policy for Industry. This enables there to be a backup during slight outages.</p>													
SOIL AND WATER																
Water Supply																
26	The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations to match its available water supply, to the satisfaction of the Secretary. Note: The Proponent is required to obtain all necessary water licences and approvals for the project under the Water Act 1912 and/or Water Management Act 2000.	Compliant	<p>Evidence of Site Water Balance document as well as water balance excel spreadsheets.</p> <p>Evidence of Hydro Engineering & Consulting Pty Ltd (HEC) completing a Water Balance Validation Report dated 2 December 2019.</p> <p>Evidence of water extraction from water licences.</p>													
Water Pollution																

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action												
	<table border="1"> <tr> <td>Additional Off-site Offset Area¹</td> <td>Existing vegetation and vegetation to be established</td> <td>250</td> </tr> <tr> <td>Middle Deep Creek Offset Area</td> <td>Existing vegetation and vegetation to be established</td> <td>410</td> </tr> <tr> <td>Rehabilitation Area²</td> <td>Vegetation to be established</td> <td>2,642</td> </tr> <tr> <td>Total³</td> <td></td> <td>4,365</td> </tr> </table> <p>¹ Refer to condition 37 ² Refer to the rehabilitation plan in Appendix 7. ³ In accordance with Condition 13 of Schedule 2, the Proponent may manage the 4,365 ha of offsets for the Project, in conjunction with the 449 ha of additional offsets required under the separate Mt Arthur Underground Project.</p>	Additional Off-site Offset Area ¹	Existing vegetation and vegetation to be established	250	Middle Deep Creek Offset Area	Existing vegetation and vegetation to be established	410	Rehabilitation Area ²	Vegetation to be established	2,642	Total³		4,365		Revegetation activities will involve natural and active regeneration. Natural regeneration is the development of native vegetation through any specific management actions besides livestock exclusion and preventing unwanted vehicle access. Active regeneration is the planting or seeding of indigenous vegetation and management of weeds. Active regeneration will be used in areas where the ability to regenerate naturally within a reasonable time frame has been lost, or to prevent soil erosion.	
Additional Off-site Offset Area ¹	Existing vegetation and vegetation to be established	250														
Middle Deep Creek Offset Area	Existing vegetation and vegetation to be established	410														
Rehabilitation Area ²	Vegetation to be established	2,642														
Total³		4,365														
37	<p>By the end of 31 December 2014, unless otherwise agreed by the Secretary, the Proponent shall revise the offset strategy to identify the Additional Off-site Offset Area presented in Table 13 above. The revised strategy shall be prepared in consultation with OEH, and to the satisfaction of the Secretary.</p> <p>Note: The 250 hectare size for the Additional Off-site Offset Area identified in Table 13 above is to be taken as a minimum only. The actual size of the offset shall:</p> <ul style="list-style-type: none"> -be determined in consultation with OEH, and together with the other offset areas listed in Table 13, shall fully offset the biodiversity impacts of the project; and -be adjusted to fully offset the biodiversity values that would be lost if any land within the biodiversity offset strategy identified in Table 13 is excised for the provision of public utilities or services, such as the Muswellbrook Sewage Treatment Plant. 	Compliant	MAC conducted an options evaluation of suitable sites that met the 250 hectare offset requirement of Condition 37. A 256-hectare site referred to as the HVEC portion of the Oakvale property was selected and identified in a letter the then DPE dated 19 December 2014. The Oakvale additional offset area was endorsed by the then OEH. Evidence of correspondence provided on 17 December 2014.													
38	<p>The Proponent shall ensure that the offset strategy and/or rehabilitation strategy is focused on the re- establishment of:</p> <p>(a) significant and/or threatened plant communities, including:</p> <ul style="list-style-type: none"> -Upper Hunter White Box – Ironbark Grassy Woodland; -Central Hunter Box – Ironbark Woodland; -Central Hunter Ironbark – Spotted Gum - Grey Box Forest; -Narabeen Foothills Slaty Box Woodland; -Hunter Floodplain Red Gum Woodland Complex; -White Box Yellow Box Blakely's Red Gum Woodland; -Hunter Lowlands Red Gum Forest; and <p>(b) significant and/or threatened plant species, including:</p> <ul style="list-style-type: none"> -River Red Gum (Eucalyptus camaldulensis); -Pine Donkey Orchid (Dunira tricolor); -Tiger Orchid (Cymbidium canaliculatum); -Weeping Myall (Acacia pendula); and <p>(c) habitat for significant and/or threatened animal species.</p>	Compliant	Information on the management of offsets is included in the Biodiversity MP. There is a separate Rehabilitation Strategy dated May 2017. This condition does not detail implementation, with this covered by other conditions.													
Long Term Security of Offsets																
39	<p>The Proponent shall make suitable arrangements to provide appropriate long term security for the:</p> <p>(a) biodiversity offset areas by 31 March 2015, unless otherwise agreed with the Secretary; and</p> <p>(b) re-established woodland in the Rehabilitation Area at least 2 years prior to the completion of open cut mining activities associated with the project, to the satisfaction of the Secretary and, with respect to the Thomas Mitchell Drive off-site offset area identified in Table 13 above, consult with Council.</p>	Compliant	a) This is outside the audit period. Evidence provided previously. Compliant b) Condition not yet triggered.													
Biodiversity Management Plan																
40	<p>The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with OEH and Council, and be submitted to the Secretary for approval by the end of March 2015, unless otherwise agreed with the Secretary;</p> <p>(b) describe how the implementation of the offset strategy would be integrated with the overall rehabilitation of the site (see below);</p> <p>(c) include:</p> <p>(i) a description of the short, medium, and long term measures that would be implemented to:</p> <ul style="list-style-type: none"> • implement the offset strategy; and • manage the remnant vegetation and habitat on the site and in the offset areas; <p>(ii) detailed performance and completion criteria for the implementation of the offset strategy;</p> <p>(iii) a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:</p> <ul style="list-style-type: none"> • implementing revegetation and regeneration within the disturbance areas and offset areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata; • protecting vegetation and soil outside the disturbance areas; • rehabilitating creeks and drainage lines that occur on the site, both inside and outside the disturbance areas (such as the White's Creek Diversion), to ensure no net loss of aquatic habitat; • managing salinity; • conserving and reusing topsoil; • undertaking pre-clearance surveys; • managing impacts on fauna; • landscaping the site and along public roads (including Thomas Mitchell Drive, Denman Road, Edderton Road and Roxburgh Road) to minimise visual and lighting impacts; • collecting and propagating seed; • salvaging and reusing material from the site for habitat enhancement; • salvaging, transplanting and/or propagating threatened flora and native grassland, in accordance with the Guidelines for the Translocation of Threatened Plants in Australia (Vallee et al., 2004); • controlling weeds and feral pests; • managing grazing and agriculture; • controlling access; and • bushfire management; <p>(iv) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;</p> <p>(v) a description of the potential risks to successful revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and</p> <p>(vi) details of who would be responsible for monitoring, reviewing, and implementing the plan.</p>	Non-Compliant (Low Risk)	<p><u>Preparation:</u></p> <p>a) Most recent version of the Biodiversity Management Plan approved in May 2019. Section 12.5 and Appendix 4 outline consultation. b) Section 7 and 9.3. c) i-Sections 7 - 12 has some information but no specific short, medium and long term measures for all biodiversity areas eg. remnant vegetation within the Project Approval area. It is noted that Appendix C outlines management actions within conservation areas for a period of 10 years, therefore this meets the requirements. ii-Section 12.1, Section 13 and Appendix 2. iii- Sections 8.9, 11 & Appendix 2 iv - Sections 12 and 13 and Appendix 2 v - Section 13.1 vi - Section 12.1 & 12.4</p> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> - Evidence of reporting on biodiversity in the Annual Review. Evidence of annual ecological development monitoring program, consisting of vegetation community assessment and fauna surveys. - Some evidence provided for collection of seed from the conservation and offset areas. - Evidence of weed management - field evidence and site records. Evidence of Weed Mapping Reports including offset areas and rehabilitation areas. Increase in funding for weed management. - Evidence of vertebrate pest management. - It should be noted that the IEA team assessed compliance based on the reports provided to the IEA team. A brief inspection was completed by the IEA Rehabilitation Specialist in one of the onsite offset areas. <p><u>Clearing Incident:</u></p> <p>The FY 2020 Annual Review provided details on an incident for clearing outside the disturbance boundary. In early January 2020, a contractor undertaking clearing at MAC cleared an area of approximately 250m² beyond the pegged disturbance limit, which was also beyond the approved MAC disturbance boundary.</p> <p>This has been assessed to be a failure to comply with Schedule 3, Condition 40 of Project Approval MP 09_0062 by failing to implement the approved Biodiversity Management Plan (BMP) to the satisfaction of the Secretary. Section 11.3.1 of the approved BMP refers to the MAC Land Management Procedure, which details control measures to be implemented during vegetation clearing. DPIE have issued an official caution in relation to this matter.</p> <p>Since then hard fences have been established to eliminate clearing outside the boundary. Equipment used for clearing has GPS site boundaries. Incident investigation was undertaken. There is a new fencing program in place for 2020, with these including fencing within the conservation areas. No further recommendation.</p>													
Conservation Bond																
41	<p>Within 6 months of the approval of the Biodiversity Management Plan, the Proponent shall lodge a conservation and biodiversity bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond shall be determined by:</p> <p>(a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and</p> <p>(b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Secretary.</p> <p>The calculation of the Conservation Bond must be submitted to the Department for approval at least 1 month prior to lodgement of the final bond.</p> <p>If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.</p> <p>If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works.</p>	Compliant	Evidence of letter from DPIE dated 13 February 2017 approving the conservation bond. Evidence of payment of the bond by HVEC in the letter dated 12 December 2017.													
Notes	<ul style="list-style-type: none"> -Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate (or any other mechanism agreed with OEH) can be used to reduce the liability of the conservation and biodiversity bond. -The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy or the completion of major milestones within the approved plan. 	Noted														
REHABILITATION																
Rehabilitation Objectives																
41A	The Proponent shall rehabilitate the site to the satisfaction of the DRE. The rehabilitation must comply with the objectives in Table 14, and be consistent with the rehabilitation plan shown in Appendix 7 and the final landform plan shown in Appendix 8.															

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
			<p>Various rehabilitation trials were underway at the time of the audit including OGM trial, ongoing grazing trial, surface preparation with harrows and seed distribution method trialling drone spreading. It is recommended to document these trials thoroughly to ensure any learnings are captured for future rehabilitation.</p> <p>The soil stockpile at Drayton (CCL229) was found to be infested with weeds, without treatment and did not appear to have been sown with a pasture seed mix. A recommendation is provided for this.</p> <p>As an observation, the first item in the TARP refers to the action required if there is inadequate soil resources for rehabilitation. This is currently an unknown due to a lack of a site-wide soil balance. Therefore, the required action within the TARP has not been triggered, however it was noted that trials of OGM were being conducted which may lead to possible alternatives.</p>	<p>5. Continue tree thinning and supplemental plantings of understorey and target overstorey species to track towards closure criteria.</p> <p>6. Pest animal management should continue, especially for rabbits on the rehabilitation as the burrows pose a high risk to contour bank stability.</p> <p>Surface Preparation</p> <p>7. Where required, continue to contour rip the topsoil into the overburden to 'roughen' the surface in order to minimise land slip and sheet erosion. Harrowing the final surface following ripping is a suitable practice.</p> <p>Rehabilitation Trials</p> <p>8. Continue the various trials on site (OGM, grazing, ripping and harrowing techniques) as this will provide site-based evidence for future rehabilitation</p>
HERITAGE				
Aboriginal Cultural Heritage Management Plan				
45	<p>The Proponent shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with OEH, the Aboriginal community, Council and relevant landowners;</p> <p>(b) include the following for the management of Aboriginal heritage on-site:</p> <ul style="list-style-type: none"> - a plan of management for the Thomas Mitchell Drive Offsite Offset Area (identified in Condition 36); and - a program/procedures for: <ul style="list-style-type: none"> o salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area; o protection and monitoring of Aboriginal sites outside the project disturbance area, including the scarred trees and axe grinding grooves identified on the site; o managing the discovery of any new Aboriginal objects or skeletal remains during the project; o maintaining and managing access to archaeological sites by the Aboriginal community; o ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site; and o management of the "Fairford 1" site in situ, including reasonable and feasible measures to mitigate impacts on this site, until an agreement can be reached with relevant Aboriginal stakeholders and OEH, for its salvage and relocation. 	Administrative Non-Compliance	<p>Preparation:</p> <p>a) Most recent version of the ACHMP was approved in August 2012. Evidence of consultation in Appendix 5.</p> <p>b) Evidence of Thomas Mitchell Drive plan. Covers other requirements of this condition with mostly in Section 5. Appendix 1 also illustrates the All Management Plan requirements of Schedule 5 Condition 2.</p> <p>Implementation:</p> <p>The previous IEA noted there were administrative non-compliances. These related to implementing the ACHMP.</p> <p>It is noted that the Thomas Mitchell Drive offset area has been fenced in accordance with the AHMP but the access protocols were not determined through consultation with the Aboriginal Stakeholders. This still appears to be the case, therefore this is a non-compliance.</p> <p>The ACHMP has not been updated since 2012 to cover administrative non-compliances and does not meet the review timeframes outlined in Schedule 5 Condition 4 of the Development Consent. It is noted in Section 10 of the 2019 Annual Review that:</p> <p><i>'AHMP is currently being reviewed and revised by Mt Arthur Coal, in consultation with OEH, the Aboriginal community, MSC and relevant landowners. The DPIE have requested that the revised management plans for review be submitted sequentially to avoid overloading the reviewers.'</i></p> <p>Evidence of salvage reports, collections and storage of artefacts from the Annual Review. 2018 Annual Review states: during March 2018, salvage works were undertaken in the Edderton Road realignment area in collaboration with Gillian Goode from RPS archaeologists with the assistance of the registered Aboriginal parties. During January and February 2019, salvage works were undertaken to relocate the 'Fairford 1' grinding groove site from the Roxburgh pit area in collaboration with RPS archaeologists and with the assistance of the registered Aboriginal parties.</p> <p>There is little information in the ACHMP regarding the Keeping Place (Section 5.4.4). This is an important part of the ACHMP, with further information required.</p> <p>Based on the information provided to the Audit team there is no evidence of any incidents associated with Aboriginal Cultural Heritage.</p>	<p>Refer to Schedule 5 Condition 2 recommendation for all management plans.</p> <p>NC REC 7: Access protocols need to be determined through consultation with Aboriginal Stakeholders. Additional details on the outcome of this consultation will be provided in Section 5.5 of the ACHMP regarding access into the Thomas Mitchell Drive heritage offset area.</p> <p>NC REC 8: Further information is required including location and a procedure for moving and managing items within the Keeping Place. Details should be added about who is allowed to access the Keeping Place.</p>
Historic Heritage Management Plan				
45A	<p>The Proponent shall prepare and implement a Historic Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the Heritage Branch, Council, local historical organisations and relevant landowners;</p> <p>(b) include the following for the management of other historic heritage on site:</p> <ul style="list-style-type: none"> - conservation management plans for the Edinglassie and Rous Lench homesteads; - a detailed plan for the relocation of the Beer Homestead, including provision for a landscape study to determine the most appropriate location and an architectural report to determine the most sympathetic method for relocation; and - a program/procedures for: <ul style="list-style-type: none"> o photographic and archival recording of potentially affected heritage items; o protection and monitoring of heritage items outside the project disturbance area; o monitoring, notifying and managing the effects of blasting on potentially affected heritage items; and o additional archaeological excavation and/or recording of any significant heritage items requiring demolition. 	Compliant	<p>Preparation:</p> <p>a) Most recent Historic Heritage MP dated September 2012;</p> <p>b) The management plan addresses the requirements of this condition, with this covered in Section 3. ;</p> <p>This actual condition (Schedule 3 Condition 45A) is not included within the management plan. The condition in the plan is slightly different and appears to be from a previous Development Consent modification.</p> <p>Implementation:</p> <p>The two State-significant historic heritage items with possible impacts from the Mt Arthur Coal operation are the Edinglassie and Rous Lench homesteads.</p>	
TRANSPORT				
Monitoring of Coal Transport				
46	<p>The Proponent shall keep records of the:</p> <p>(a) amount of coal transported from the site in each financial year;</p> <p>(b) number of coal haulage train movements generated by the Mt Arthur mine complex (on a daily basis); and</p> <p>(c) make these records available on its website at the end of each financial year.</p>	Compliant	<p>The amount of coal transported at site is included in the Annual Review. This includes the train movements. Appendix 6 of the Annual Reviews outline this detail. Also evidence of excel tracking spreadsheet.</p>	
Road Upgrades and Maintenance				
47	<p>The Proponent shall:</p> <p>(a) contribute to the upgrade and maintenance of Thomas Mitchell Drive, proportionate to its impact (based on usage) on that infrastructure, in accordance with the Contributions Study prepared by GHD titled, "Thomas Mitchell Drive Contributions Study, June 2014" (or its latest version), unless otherwise agreed by the Secretary;</p> <p>(b) upgrade the Thomas Mitchell Drive/New England Highway intersection to the satisfaction of the applicable roads authority, by the end of June 2011 unless otherwise agreed by the roads authority;</p> <p>(c) upgrade the Thomas Mitchell Drive/Denman Road intersection to the satisfaction of the applicable roads authority, by the end of December 2017, unless otherwise agreed by the Secretary;</p> <p>(d) realign Edderton Road and its intersection with Denman Road prior to mining within 200 metres of the road, to the satisfaction of Council and the RMS;</p> <p>(e) upgrade the intersection of Edderton Road and the secondary site access road to the satisfaction of Council prior to using this road for deliveries to the relocated explosives facility; and</p> <p>(f) maintain reasonable access to the summit of Mt Arthur for emergency services and legitimate users on a 24 hour per day basis, except for temporary closures as required for blasting.</p> <p>The road or intersection upgrades referred to in this condition may be satisfied through funding the required upgrades, subject to the agreement of the applicable roads authority, and subject to providing the funding such that the upgrades can be completed within the stated timeframe.</p> <p>For Thomas Mitchell Drive, the contributions must:</p> <p>(a) be paid to Council within three months of the GHD contributions study being issued by the Department for the upgrade works; and</p> <p>(b) be paid to Council in accordance with the maintenance schedule established in accordance with the Contributions Study during the life of the project, unless otherwise agreed with Council.</p> <p>If there is any dispute between the Proponent and Council or the RMS in relation to the funding or completion of the upgrades, then any of the parties may refer the matter to the Secretary for resolution.</p>	Compliant	<p>a) Outside IEA period but completed.</p> <p>b) Outside IEA period but completed.</p> <p>c) Letter from DPIE dated 16 April 2020 outlined an extension was granted to 31 December 2022.</p> <p>d) Evidence of completed road upgrade with deed between HVEC and Muswellbrook Shire Council dated 3 July 2018. Based on discussions MAC continue to liaise with Council regarding the longterm management of the newly realigned Edderton Road.</p> <p>e) Road upgrade completed, however final signoff is still with Council.</p> <p>f) Access has been maintained.</p>	
Note:	<p><i>-In making a determination about the applicable upgrade and maintenance contributions for Thomas Mitchell Drive, the Secretary shall take into account the contributions already paid and currently required to be paid towards the upgrade and maintenance of the local road network surrounding Muswellbrook under this approval and the planning agreement executed on 24 June 2011, and summarised in Appendix 9.</i></p> <p><i>-For clarity it is noted that while the Proponent is required to upgrade the Thomas Mitchell Drive/Denman Road intersection in accordance with Condition 47 (c), it may receive contributions from other mining companies toward the cost of accelerating this upgrade, in proportion to the respective impacts of these other mine/s on this intersection, as identified in the Contributions Study prepared by GHD titled "Thomas Mitchell Drive Contributions Study, June 2014" (or its latest version), unless otherwise agreed with the Secretary.</i></p>	Noted		
Railway Crossing				
48	The Proponent shall implement all reasonable and feasible measures to minimise blocking the railway crossing on Antene Railway Station Road, to the satisfaction of the Secretary.	Compliant	There has been no changes to this area in the last three years. No evidence of any non-compliances provided to the IEA team.	
Rail Loop Duplication				
48A	The Proponent shall ensure that the rail loop duplication is undertaken in consultation with the ARTC and relevant infrastructure/land owners (including Council), and constructed to meet relevant standards and network interface requirements, to the satisfaction of ARTC.	Not Triggered	Based on information provided by MAC, this has not occurred.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
48B	The Proponent shall prepare and implement a Construction Management Plan for the rail loop duplication and associated bridge widening to the satisfaction of the Secretary. This plan must be prepared in consultation with Council and ARTC, and must be submitted to the Secretary for approval prior to the commencement of construction activities for the rail duplication and associated bridge. The plan must describe how public safety and access to Thomas Mitchell Drive would be maintained during the construction period.	Not Triggered	Based on information provided by MAC, this has not occurred.	
VISUAL				
Mining Operations Additional Visual Impact Mitigation				
49	By the end of December 2014, the Proponent shall revise the Visual Impacts Management Report prepared by AECOM in May 2011, to the satisfaction of the Secretary. The revised report must: (a) identify the privately-owned land that is likely to experience significant visual impacts during the project; and (b) describe (in general terms) the additional mitigation measures that could be implemented to reduce the visibility of the mine from these properties.	Compliant	This is outside the Audit period. Most recent management plan is dated July 2015 titled "Mt Arthur coal Mine - Open Cut Modification Project - Visual Impacts Management Report". In terms of implementation evidence has been provided for the Visual Assessment from 2018 - titled Woodlands Stud Visual Impacts assessment. There was also a recent photo from 2020 of the tree screen. The Ecological and Rehab Assessment Program outlines the status of the visual screens. It is noted that there have been visual and lighting complaints for the site. However there has been evidence of completing inspections at dusk to manage noise, lighting and dust.	
Notes	<i>*The additional visual impact mitigation measures should be aimed at reducing the visibility of the mine from significantly affected residences or areas on privately-owned land subject to tourist and/or general public access or areas on the Woodlands thoroughbred horse stud with views of the project, and do not necessarily require measures to reduce visibility of the mine from other locations on affected properties. The additional visual impact mitigation measures do not necessarily have to include measures on the affected property itself (i.e. the additional measures may consist of measures outside the affected property boundary that provide an effective reduction in visual impacts). *Except in exceptional circumstances, the Secretary will not require additional visual impact mitigation to be undertaken for residences that are more than 5 kilometres from the mining operations.</i>	Noted	Noted	
50	Within 3 months of the Secretary approving this report, the Proponent shall advise all owners of privately-owned land identified in the report that they are entitled to additional mitigation measures to reduce the visibility of the mine from their properties.	Not Triggered	Outside of this Audit period.	
51	Upon receiving a written request from an owner of privately-owned land identified in this report, or upon receiving a direction from the Secretary regarding any other privately-owned land, the Proponent shall implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) in consultation with the landowner, and to the satisfaction of the Secretary. These mitigation measures must be reasonable and feasible, and must be implemented within a reasonable timeframe. If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.	Not Triggered	Based on information provided by MAC, this has not occurred. Evidence of liaising with neighbours through the complaint management process.	
Visual Amenity and Lighting				
52	The Proponent shall: (a) implement all reasonable and feasible measures to mitigate visual and off-site lighting impacts of the project; (b) ensure no outdoor lights shine above the horizontal; and (c) ensure that all external lighting associated with the project complies with relevant Australian Standards, including Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Secretary.	Compliant	a) According to the Annual Review visual and lighting is managed under: - MAC-ENC-PRO-071 Visual Assessment Procedure. - MAC-PRD-PRO-073 Procedure for Lighting Plant Movement and Setup. - MAC-ENC-PRO-077 Light Management Procedure. There have been numerous visual and lighting complaints during the IEA period. Evidence of consultation from March 2019 to September 2019, with the Department satisfied with the response to lighting complaints along Racecourse Road in the email dated 27 September 2019. The IEA had discussions with MAC personnel regarding the process of managing lighting. Every night MAC personnel drive around the site to visible points as part of the OCE Run'. This also assesses other environmental aspects such as noise. Evidence provided for the complaints process. The most recent lighting audit is from 20212. Although there is no evidence suggesting non - compliance the IEA team still has recommendations.	Improvement REC 10: Recommend a Lighting Audit to assess against Australian Standards AS 4282 - 1997. This will cover fixed exterior lighting and interior lighting that could impact the outdoor environment.
WASTE				
53	The Proponent shall: (a) minimise and monitor the waste generated by the project; (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of; (c) manage on-site sewage treatment and disposal in accordance with the requirements of Council; and (d) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.	Compliant	Waste generated from the project is summarised in the Annual Reviews. This includes a comparison of totals for disposal and recycling. Evidence of waste database which provides waste volumes by waste streams. Evidence of field performance. The waste management performance across site was generally high. There was no evidence of waste issues having any offsite issues, and are mostly relating to house keeping. Hence this condition has been assessed compliant. The following things were identified: - Hydrocarbons have not been stored within bunded areas (EMECO Area). - Based on information provided inspections sometimes include the contractor areas. - Servicing is not completed within bunded areas. Some areas of contamination evident (EMECO and Pit Masters area). - A small number of bins across site require labelling. - Segregation of waste was generally completed as per requirements, however it was noted at the Thiess workshop area at Mount Arthur South that one of the general waste bins was full of cardboard. - In the Thiess workshop area at Mount Arthur South it was noted that there was no spoon drain to sump system to collect runoff from within the workshop. Contaminated liquids could potentially travel out of the workshop and drain into the dirty water management system. This could occur when servicing equipment, although this is noted to be unlikely.	Improvement REC 11: Ensure all contractor areas are inspected as part of general inspections as these are areas of higher risk of poorer environmental management. Ensure future oil storage and servicing areas are within bunded areas. This recommendation currently relates to the EMECO and Pit Master Areas only. Improvement REC 12: Consider completing a review of segregation requirements and labelling of bins across site to identify improvement opportunities. Improvement REC 13: Ensure inspections are completed at a higher interval at the Thiess Workshop as the area does not have a setup to trap potentially contaminated water/liquids prior to it leaving the Thiess workshop area. Additional controls could be put in place during servicing within this workshop to prevent leakage of hydrocarbons.
BUSHFIRE MANAGEMENT				
54	The Proponent shall: (a) ensure that the project is suitably equipped to respond to any fires on site; and (b) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site.	Compliant	Evidence of internal bushfire management procedures (BHP and site Procedure). Fire suppression and control is achieved through on-site fire-fighting equipment, including a rescue truck and water carts. Evidence of inspection a maintenance along fire breaks from 2018. Consultation with the RFS was provided to the IEA team.	
SCHEDULE 4 ADDITIONAL PROCEDURES				
NOTIFICATION OF LANDOWNERS				
1	By the end of September 2014, the Proponent shall ensure that the owners of the land listed in: (a) Table 1 of schedule 3 have been notified in writing that they have the right to require the Proponent to acquire their land at any stage during the project; (b) Table 1 (noise affected land) and Table 4 of schedule 3 have been notified in writing that they are entitled to ask the Proponent to install additional noise mitigation measures at their residence at any stage during the project; and (c) Table 1 (air quality affected land) and Table 12 of schedule 3 have been notified in writing that they are entitled to ask the Proponent to install additional air quality mitigation measures at their residence at any stage during the project.	Not Triggered	Outside of the Audit period.	
2	If the results of the monitoring required in schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, except where a negotiated agreement has been entered into in relation to that impact, then the Proponent shall, within 2 weeks of obtaining the monitoring results notify the Secretary, the affected landowners and tenants (including tenants of mine- owned properties) accordingly, and provide regular monitoring results to each of these parties until the results show that the project is complying with the criteria in schedule 3.	Not Triggered	Based on the information provided results did not trigger this condition.	
3	The Proponent shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to all landowners and/or existing or future tenants (including tenants of mine owned properties) of properties where: (a) the predictions in the EA identify that the dust emissions generated by the project are likely to be greater than the air quality land acquisition criteria in schedule 3; and (b) monitoring results identify that the mine is exceeding the air quality land acquisition criteria in schedule 3, with such notice to be provided within 2 weeks of identifying the exceedance.	Not Triggered	Based on the information provided results did not trigger this condition.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
3A	The Proponent shall ensure that any receiver identified in condition 1 of schedule 4 is notified in writing of any change in the status of their acquisition or mitigation rights, at least 12 months prior to this change occurring, to the satisfaction of the Secretary.	Not Triggered	Based on the information provided results did not trigger this condition.	
INDEPENDENT REVIEW				
4	<p>If a landowner of privately-owned land considers the project to be exceeding the impact assessment criteria in schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land.</p> <p>If the Secretary is satisfied that an independent review is warranted, the Proponent shall within 2 months of the Secretary's decision:</p> <ul style="list-style-type: none"> (a) Commission and fund a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to: <ul style="list-style-type: none"> - consult with the landowner to determine his/her concerns; - conduct monitoring to determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and - if the project is not complying with these criteria then: <ul style="list-style-type: none"> o determine if the more than one mine is responsible for the exceedance, and if so the relative share of each mine regarding the impact on the land; o identify the measures that could be implemented to ensure compliance with the relevant criteria; and (b) give the Secretary and landowner a copy of the independent review. 	Compliant	<p>Evidence of Independent Review, with letter from DPIE to Mount Arthur dated 18 April 2019. This requested the nominated specialist to conduct the Independent Review to be forwarded to DPIE by 17 May 2019.</p> <p>Evidence of proposal from Jacobs dated 2 December 2019. The proposal outlined the timing of the Independent Review being completed over a 12 month period, until July 2021. The process is ongoing therefore this condition is currently compliant.</p>	
5	<p>If the independent review determines that the project is complying with the relevant impact assessment criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.</p> <p>If the independent review determines that the project is not complying with the relevant impact assessment criteria in schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent shall:</p> <ul style="list-style-type: none"> (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until the project complies with the relevant criteria; or (b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Secretary. <p>If the measures referred to in (a) do not achieve compliance with the air quality acquisition criteria in schedule 3, and the Proponent cannot secure a written agreement with the landowner to allow these exceedances within 3 months, then upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land in accordance with the procedures in conditions 7-8 below.</p>	Not Triggered	The Independent Review has not been finalised. Therefore this has not been triggered.	
6	<p>If the independent review determines that the relevant impact assessment criteria in schedule 3 are being exceeded, but that more than one mine is responsible for this non-compliance, then the Proponent shall, together with the relevant mine/s:</p> <ul style="list-style-type: none"> (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until there is compliance with the relevant criteria; or (b) secure a written agreement with the landowner and other relevant mines to allow exceedances of the relevant impact assessment criteria in schedule 3, to the satisfaction of the Secretary. <p>If the measures referred to in (a) do not achieve compliance with the air quality acquisition criteria in schedule 3, and the Proponent together with the relevant mine/s cannot secure a written agreement with the landowner to allow these exceedances within 3 months, then upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land on as equitable a basis as possible with the relevant mine/s, in accordance with the procedures in conditions 7-8 below.</p>	Not Triggered	The Independent Review has not been finalised. Therefore this has not been triggered.	
LAND ACQUISITION				
7	<p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:</p> <ul style="list-style-type: none"> (a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project, having regard to the: <ul style="list-style-type: none"> - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and - presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the 'additional noise mitigation measures' in condition 7 of schedule 3, or 'additional air quality mitigation measures' in condition 22 of schedule 3; (b) the reasonable costs associated with: <ul style="list-style-type: none"> - relocating within the Muswellbrook, Singleton or Scone local government area, or to any other local government area determined by the Secretary; and - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and (c) reasonable compensation for any disturbance caused by the land acquisition process. <p>However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.</p> <p>Upon receiving such a request, the Secretary shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:</p> <ul style="list-style-type: none"> - consider submissions from both parties; - determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above; - prepare a detailed report setting out the reasons for any determination; and - provide a copy of the report to both parties. <p>Within 14 days of receiving the independent valuer's report, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.</p> <p>However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary shall determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, and the detailed report of the party that disputes the independent valuer's determination. Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.</p> <p>If the landowner refuses to accept the Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land shall cease, unless the Secretary determines otherwise.</p>	Not Triggered	Based on the information provided results did not trigger this condition.	
8	The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 7 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.	Not Triggered	Based on the information provided results did not trigger this condition.	
SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING				
ENVIRONMENTAL MANAGEMENT				
Environmental Management Strategy				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
1	<p>The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. The strategy must:</p> <p>(a) provide the strategic framework for environmental management of the project;</p> <p>(b) identify the statutory approvals that apply to the project;</p> <p>(c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;</p> <p>(d) describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> • keep the local community and relevant agencies informed about the operation and environmental performance of the project; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the project; • respond to any non-compliance; • respond to emergencies; and <p>(e) include:</p> <ul style="list-style-type: none"> • copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and • a clear plan depicting all the monitoring to be carried out in relation to the project. 	Compliant	<p><u>Preparation:</u> Currently approved EMS is dated 27 May 2013. The EMS preparation condition in Appendix 1 is out of date and references older conditions.</p> <p>a) Section 2. b) Section 3. c) Section 8. d) Section 4 and other sections. e) other plans are referenced.</p> <p><u>Implementation:</u> - Evidence of complaints management. Complaints log and investigation. The greatest number of air quality complaints during FY2019 during the sustained period of drought. - Evidence of proactive community engagement through CCC, community funds and supporting local businesses. - Evidence of stakeholder engagement. - Evidence of incident details and reporting.</p> <p>Evidence of Incident management and reporting process.</p> <p>The IEA inspection indicated some minor issues with contamination, waste management and hydrocarbon storage in contractor areas including EMECO, Pit Masters and Theiss. Based on discussions with the MAC Environmental team these areas not often inspected by MAC.</p>	<p>As per S3C17 recommendation regarding providing sufficient information for incident reporting.</p> <p>As per REC from S3 C54 ensure all contractor areas are inspected as part of general inspections as these are areas of higher risk of poorer environmental management.</p>
Management Plans				
2	<p>The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> • the relevant statutory requirements (including any relevant approval, licence or lease conditions); • any relevant limits or performance measures/criteria; • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures; <p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> • impacts and environmental performance of the project; • effectiveness of any management measures (see c above); <p>(e) a contingency plan to manage any unpredicted impacts and their consequences;</p> <p>(f) a program to investigate and implement ways to improve the environmental performance of the project over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; and <p>(h) a protocol for periodic review of the plan.</p>	Compliant	<p>Some of the management plans are from 2012. Section 4.4 of the IEA Main document outlines the relevant management plans for MAC.</p> <p>Although the conditions generally appear to be covered, many of the management plans do not provide cross referencing tables covering the relevant Project Approval and EPL conditions.</p>	<p>Improvement REC 14: Cross referencing tables containing the relevant conditions should be added to Management Plans which have not received a recent update. This would include all relevant conditions of the Development Consent and EPL and commitments from the 2013 Environmental Assessment.</p>
Annual Review				
3	<p>By the end of June each year, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the works that were carried out in the past year, and the works that are proposed to be carried out over the next year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the:</p> <ul style="list-style-type: none"> • the relevant statutory requirements, limits or performance measures/criteria; • the monitoring results of previous years; and • the relevant predictions in the EA; <p>(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the project;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measures will be implemented over the next year to improve the environmental performance of the project.</p>	Compliant	<p>Evidence of FY 2018, 2019 and 2020 Annual Reviews.</p> <p>The Annual Reviews are sufficiently detailed to meet the requirements of this Project Approval condition. Includes details on management, monitoring and trends. They are sufficiently detailed.</p>	
Revision of Strategies, Plans and Programs				
4	<p>Within 3 months of:</p> <p>(a) the submission of an annual review under condition 3 above;</p> <p>(b) the submission of an incident report under condition 7 below;</p> <p>(c) the submission of an audit under condition 9 below; or</p> <p>(d) any modification to the conditions of this approval,</p> <p>the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within four weeks of the review the revised document must be submitted to the Secretary for approval.</p>	Administrative Non-Compliance	<p>Management Plans have not been updated to meet this condition. Many of the approved management plans are from 2012 and 2013. The IEA team has reviewed evidence illustrating consultation with DPIE regarding management plans, however there is no formal feedback outlining that DPIE were satisfied with the delay in reviewing and submitting management plans.</p>	<p>NC REC 9: In terms of the timings of updating management plans, this should be completed in accordance with Schedule 5 Condition 4 of the Development Consent.</p> <p>Refer to Schedule 5 Condition 2 recommendation for all management plans.</p>
Notes	<p>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.</p>	Noted		
Community Consultative Committee				
5	<p>The Proponent shall establish and operate a CCC for the project to the satisfaction of the Secretary. This CCC must be established by the end of March 2011 and be operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version).</p> <p>Notes:</p> <ul style="list-style-type: none"> • The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval. • In accordance with the Guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, affected councils and the general community. 	Compliant	<p>Evidence of CCC minutes as per the guideline requirements. Included on the website.</p>	
Management of Cumulative Impacts				
6	<p>In conjunction with the owners of the nearby Drayton and Bengalla mines, the Proponent shall use its best endeavours to minimise the cumulative impacts of the project on the surrounding area to the satisfaction of the Secretary.</p> <p>Note: Nothing in this approval is to be construed as requiring the Proponent to act in a manner which is contrary to the Trade Practices Act 1974.</p>	Compliant	<p>Evidence of consultation with neighbouring mines. Includes co-ordination of air quality management between Drayton, Mangoola and Bengalla. Evidence of discussions between environmental teams and general managers of these sites.</p>	
REPORTING				
Incident Reporting				
7	<p>The Proponent shall immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.</p>	Compliant	<p>The Project Approval defines an incident as: A set of circumstances that: - causes, or threatens to cause, material harm to the environment; and/or - breaches or exceeds the limits or performance measures/criteria in this approval</p> <p>A summary of incidents was outlined within the Annual Review and EPL Annual Returns. Evidence was provided for the incident report notification and reporting. Based on the information provided this condition was met. However it is noted that some incident reports were not sufficiently detailed. For example the incident report for the blast furnace incident had the submission date extended to 10 May 2019. This report did not contain any photographs of the incident. Consistent information should be provided in the incident reports.</p> <p>The EMS stated 'A written report on the incident will be provided to the DPIE within 7 days of becoming aware of the incident (or as otherwise directed by the DPIE)'.</p>	<p>Improvement REC 15: Consider improving the information provided in incident reports, this may include the addition of photographs where appropriate, consistent headings and layouts for reports. This will ensure consistency across incident reporting.</p>
Regular Reporting				
8	<p>The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval, and to the satisfaction of the Secretary.</p>	Compliant	<p>Evidence of annual reporting monthly reporting. Evidence of complaints summary.</p>	
INDEPENDENT ENVIRONMENTAL AUDIT				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
9	By the end of June 2014, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must: (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary; (b) include consultation with the relevant agencies; (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals); (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and (e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.	Compliant	Previous audit covered 1 July 2014 to 30 June 2017. Evidence of revision following DPIE comments. Final version dated 19 April 2018. a) Endorsement letter and audit team from the 2017 audit was sighted. b) Section 2 of previous audit report outlines consultation. c) Performance of key requirements has been assessed. d) Requirements assessed in previous audit. e) Recommendations included. These conditions have been followed as part of the 2020 IEA.	
Notes:	<i>*This audit team must be led by a suitably qualified auditor and include experts in surface water, groundwater and any other fields specified by the Secretary. *The audits should be coordinated with similar auditing requirements for the Mt Arthur Underground Project.</i>	Compliant	Specialists were included and endorsed in the 2017 IEA and the 2020 IEA.	
10	Within 6 weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.	Administrative Non-Compliance	The previous IEA was submitted on 1 February 2018. This site component was commenced on 13th October 2017. This is outside the six weeks. Historical non-compliance, therefore no further recommendation.	
ACCESS TO INFORMATION				
11	From the end of December 2010, the Proponent shall: (a) make the following information publicly available on its website: - a copy of all current statutory approvals for the project; - a copy of the current environmental management strategy and associated plans and programs; - a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval; - a complaints register, which is to be updated on a monthly basis; - a copy of the minutes of CCC meetings; - a copy of any Annual Reviews (over the last 5 years); - a copy of any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit; - any other matter required by the Secretary; and (b) keep this information up to date, to the satisfaction of the Secretary.	Compliant	The website was reviewed and it meets the requirements of this condition.	
APPENDIX 10				
NOISE COMPLIANCE ASSESSMENT				
Applicable Meteorological Conditions				
1	The noise criteria in Table 2 of Schedule 3 are to apply under all meteorological conditions except the following: (a) during periods of rain or hail; (b) average wind speed at microphone height exceeds 5 m/s; (c) wind speeds greater than 3 m/s measured at 10 m above ground level; or (d) temperature inversion conditions greater than 3°C/100 m, or alternatively stability class F and G.	Compliant	Noise monitoring met these requirements.	
Determination of Meteorological Conditions				
2	Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station on or in the vicinity of the site.	Compliant	Noise monitoring met these requirements.	
Compliance Monitoring				
3	Attended monitoring is to be used to determine compliance with the relevant conditions of this Approval.	Compliant	Noise monitoring met these requirements.	
4	This monitoring must be carried out at least once a month (but at least two weeks apart), unless the Secretary directs otherwise.	Compliant	Noise monitoring met these requirements.	
Note:	<i>The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the project.</i>	Compliant	Noise monitoring met these requirements.	
5	Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial Noise Policy (as amended from time to time), in particular the requirements relating to: (a) monitoring locations for the collection of representative noise data; (b) meteorological conditions during which collection of noise data is not appropriate; (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and (d) modifications to noise data collected including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.	Compliant	Noise monitoring met these requirements.	

EPL Licence 11457 (variation as at October 2019) - note new variation dated July 2020 outside of audit period

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action																								
ADMINISTRATIVE CONDITIONS																												
What the licence authorises and regulates																												
A1.1	This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation. Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.	Compliant	Coal handling and production listed in the 2018, 2019 and 2020 annual reviews, within specified limits. Works completed to this scale.																									
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Note	In relation to this licence, the licensee must comply with: a) the activity scale limits imposed by this licence; b) the activity scale limits which apply for the reporting period specified in this licence; and c) the activity scale limits imposed by other legal instruments, such as approvals currently in force under the Environmental Planning and Assessment Act 1979.	Note																										
A2	Premises or plant to which this licence applies	Compliant	The Audit reviewed compliance within the Project Approval boundary.																									
A2.1	The licence applies to the following premises: <table border="1"> <thead> <tr> <th>Premises Details</th> </tr> </thead> <tbody> <tr> <td>MT ARTHUR COAL</td> </tr> <tr> <td>THOMAS MITCHELL DRIVE</td> </tr> <tr> <td>MUSWELLBROOK</td> </tr> <tr> <td>NSW 2333</td> </tr> <tr> <td>PREMISES DEFINED BY PLAN TITLED "EPA - PLAN OF PREMISES" DRAWING NO. 322402 DATED 17/10/2016 AND SHAPE FILE EPA REFERENCE DOC16/527575.</td> </tr> </tbody> </table>				Premises Details	MT ARTHUR COAL	THOMAS MITCHELL DRIVE	MUSWELLBROOK	NSW 2333	PREMISES DEFINED BY PLAN TITLED "EPA - PLAN OF PREMISES" DRAWING NO. 322402 DATED 17/10/2016 AND SHAPE FILE EPA REFERENCE DOC16/527575.																		
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A3	Information supplied to the EPA	-																										
A3.1	Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence. In this condition the reference to "the licence application" includes a reference to: a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.	Compliant	Works are carried out generally in accordance with this licence.																									
DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND																												
Location of monitoring/discharge points and areas																												
P1	Location of monitoring/discharge points and areas	Compliant	Monitoring locations shown on figure 1 of AQMP and on appropriate figures of the Annual Reviews. AQMP states: <i>sites DC10 to DC13 are near mine edge monitors (where the criteria does not apply) set up for an eventual introduction of upwind/downwind compliance triggers required by the EPL, not for monitoring the 50µg/m3 limit as they do not represent the closest privately owned residential areas.</i> Monitoring results published on website https://www.bhp.com/sustainability/environment/regulatory-information/																									
P1.1	The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point. <table border="1"> <thead> <tr> <th colspan="4">Air</th> </tr> <tr> <th>EPA Identification no.</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>11</td> <td>Particulate Matter Monitoring - PM10</td> <td></td> <td>At coordinates E:294417 N:6423492 (GDA94 MGA56)</td> </tr> <tr> <td>12</td> <td>Particulate Matter Monitoring - PM10</td> <td></td> <td>At coordinates E:297079 N:6424951 (GDA94 MGA56)</td> </tr> <tr> <td>13</td> <td>Particulate Matter Monitoring - PM10</td> <td></td> <td>At coordinates E:300862 N:6415287 (GDA94 MGA56)</td> </tr> <tr> <td>14</td> <td>Particulate Matter Monitoring - PM10</td> <td></td> <td>At coordinates E:303216 N:6419154 (GDA94 MGA56)</td> </tr> </tbody> </table>				Air				EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	11	Particulate Matter Monitoring - PM10		At coordinates E:294417 N:6423492 (GDA94 MGA56)	12	Particulate Matter Monitoring - PM10		At coordinates E:297079 N:6424951 (GDA94 MGA56)	13	Particulate Matter Monitoring - PM10		At coordinates E:300862 N:6415287 (GDA94 MGA56)	14	Particulate Matter Monitoring - PM10		At coordinates E:303216 N:6419154 (GDA94 MGA56)
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P1.2	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.	Note																										
P1.3	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.																											

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P1.4	The following points referred to in the table below are identified in this licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises.	Compliant	<p>MAC Blast Management Plan dated 17 April 2018 details blast monitoring locations which include BP04, BP07, BP09 and BP11.</p> <p>Blast monitoring results reported in Annual Reviews and on website</p>	Improvement REC 17: Clearly identify the EPL monitoring locations and ID within the BMP and Annual Reviews (ie BP04 [EPL ID 7])																
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LIMIT CONDITIONS																				
Pollution of waters																				
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	Compliant	<p>2018 and 2019 Annual Reviews and Annual Returns state that there were no discharges during the audit period.</p> <p>In the 2020 Annual Review period there were 2 reportable incidents of uncontrolled discharge of water from the site as follows:</p> <p>On 23 January 2020 a leak from the Environment Dam to Belmont pit line was identified. Water was observed flowing along the inside of the Denman Rd visual bund, then through a rock lined drainage point and silt fence to a set of culverts under Denman Rd. Assessment determined that there was no material harm to the environment. The incident was reported to the EPA and DPIE. DPIE have determined that the EPA is the appropriate regulatory authority to administer the incident investigation. At the time of reporting the investigation is still underway with the EPA. MAC have provided information to the EPA and an action plan to reduce the risk of a similar events occurring in the future.</p> <p>On 6 February 2020, an excavator was burying a mine water pipeline across the old conveyor access road. As the excavator was completing the task, the bucket clipped the pipe causing it to rupture. The pump connected to the pipe was switched off and the pipeline was not in use at the time the event occurred. Therefore, there was only a minimal amount of residual water in the pipe at the time it was damaged. Water contained within the pipe at the time of the event flowed 160m down the conveyor corridor with a small volume entering Saddlers Creek. The majority of the water discharged from the line was contained within the conveyor corridor. Saddlers Creek had no water in it at the time of the event. There was no pooling due to the small volume of water that reached the creek which immediately soaked into the soil. Water samples were collected directly from the pipe and sent for analysis. An assessment was completed which found no material harm to the environment. The incident was reported to the EPA and DPIE, there has been no regulatory action undertaken by either agency at this time.</p> <p>Investigations of both incidents indicated that there was no material harm due to the discharges. It is understood that a PRP will be negotiated with the EPA with regard to the pipeline incident.</p> <p>There is no evidence that there was material harm from these discharge events, therefore compliant.</p>	Improvement REC 18: Implement the PRP for water pipelines in consultation with the EPA.																

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action																		
L2	Concentration limits	-																				
L2.1	For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	Not Triggered	Monitoring is only required during discharge. 2018, 2019 and 2020 Annual Reviews and Annual Returns state that there were no HRSTS discharges during the audit period.																			
L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	Not Triggered	Monitoring is only required during discharge. 2018, 2019 and 2020 Annual Reviews and Annual Returns state that there were no HRSTS discharges during the audit period.																			
L2.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.	Not Triggered	Monitoring is only required during discharge. 2018, 2019 and 2020 Annual Reviews and Annual Returns state that there were no HRSTS discharges during the audit period.																			
L2.4	Water and/or Land Concentration Limits																					
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L3	Volume and mass limits	-																				
L3.1	For each discharge point or utilisation area specified below (by a point number), the volume/mass of: a)liquids discharged to water; or; b)solids or liquids applied to the area; must not exceed the volume/mass limit specified for that discharge point or area.	Not Triggered	Monitoring is only required during discharge. 2018, 2019 and 2020 Annual Reviews and Annual Returns state that there were no HRSTS discharges during the audit period.																			
	<table border="1"> <thead> <tr> <th>Point</th> <th>Unit of Measure</th> <th>Volume/Mass Limit</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>megalitres per day</td> <td>450</td> </tr> </tbody> </table>	Point	Unit of Measure	Volume/Mass Limit	6	megalitres per day	450															
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L4	Waste	-																				
L4.1	<p>The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below.</p> <p>Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below.</p> <p>Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below.</p> <p>This condition does not limit any other conditions in this licence.</p>	Compliant	<p>Waste Database 2018, 2019 and 2020 sighted.</p> <p>Database indicates 120,000 to 220,000 kg waste oil recycled per month.</p> <p>Based on the site inspection, waste oils are appropriately stored in bunded areas or containment system.</p> <p>This condition refers to waste being received from offsite with the waste oil / hydrocarbon mixtures / emulsions in water to be used for blasting as permitted by Condition L4.4. This method of blasting has not been used in the audit period and therefore no waste oil has been received.</p> <p>No evidence of receipt of waste generated from outside of the premises was observed during the site inspection</p>																			
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NA	General or Specific exempted waste			NA																		
J120	Waste oil/hydrocarbons mixtures/emulsions in water			No more than 68,000 Litres to be stored at the premises at any time.																		
L4.2	The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by the licence.	Compliant	<p>As stated in the MAC-ENC-PRO-033 - Waste Handling and Disposal Procedure <input type="checkbox"/>No wastes generated outside of the site can be brought onto site. This is a prosecutable offence that can incur personal fines and/or imprisonment.</p> <p>No evidence of receipt of waste generated from outside of the premises was observed during the site inspection</p>																			
L4.3	This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if those activities require an environment protection licence.	Note																				
L4.4	All waste oil used in blasting operations at the premises must meet the following quality limits:																					

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action																																				
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Notes	<p>Definitions: LAeq(15 minute) is the value of LAeq(15 minute) which shall not be exceeded for more than 10% of the monitoring periods detailed in the noise monitoring program for independent noise investigations and includes the full range of weather conditions occurring at the time of monitoring.</p> <p>Day means 7am to 6pm; Evening means 6pm to 10pm; and Night means 10pm to 7am</p>	Note																																						
L6	Blasting	-																																						
L6.1	Blasting in or on the premises must only be carried out between 8am and 5pm, Monday to Saturday inclusive. Blasting in or on the premises must not take place on Sundays or Public Holidays, or at any other time without the prior approval of the EPA.	Compliant	<p>FY2018, FY2019 and FY2020 Annual Reviews state that all blasts were undertaken on Monday to Saturday between 8am and 5pm.</p> <p>According to the provided blast log, 3 blasts were recorded on 31 January 2020 at 12:11 AM, 12:14 AM and 12:16 AM and one blast was undertaken on 5 May 2020 at 1:12 AM. Additional information (blast records) was provided to verify that this was a typo within the blast log and therefore all blasts were within the approved hours.</p>	Improvement REC 19: Include day of week in blast database addition to date to confirm blasting does not occur on Sundays or public holidays.																																				
L6.2	The airblast overpressure level from blasting operations in or on the premises must not exceed: 115 dB (Lin Peak) for more than 5% of the total number of blasts during each reporting period; at either monitoring point 7, 8, 9 or 10 in Condition P1.4.	Compliant	<p>FY 2018 Annual Review states 5 blasts out of 149 (4%) exceeded 115 dBL.</p> <p>FY 2019 Annual Review states 5 blasts out of 154 (3.2%) exceeded 115 dBL.</p> <p>FY 2020 Annual Review states 4 blasts out of 183 (2.19%) exceeded 115 dBL.</p>																																					

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
L6.3	The airblast overpressure level from blasting operations in or on the premises must not exceed: 120 dB (Lin Peak) at any time; at either monitoring point 7, 8, 9 or 10 in Condition P1.4	Compliant	As reported in the FY2019 Annual Review and Annual Return, on 24 December 2018 a blast recorded an airblast overpressure of 120.6 dBL which exceeded the 120 dBL limit. Teroc undertook full investigation of the exceedance and identified that this was not an exceedance but was due to wind on the microphone. Ongoing discussions with DPIE regarding issue as non compliance now considered to be a non-monitoring non compliance. As reported in 2020 Annual Review, one blast recorded an airblast overpressure result above the maximum 120 dBL limit on 8 August 2019 at 2:17 pm, recording 124.4 dBL at the Sheppard Avenue monitor (BP07). Investigations determined that the overpressure level was not a valid result as it was the result of wind impact on the microphone, not overpressure from the blast event. DPIE have agreed the site is compliant for this blast. The non-compliance was self reported in the FY 2019 Annual Review, however based on the investigation report this is considered compliant.	
L6.4	The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed: 5 mm/second for more than 5% of the total number of blasts during each reporting period; at either monitoring point 7, 8, 9 or 10 in Condition P1.4.	Compliant	FY 2018 Annual Review states 2 blasts out of 149 (1.3%) exceeded 5mm/s FY 2019 Annual Review states 2 blasts out of 154 (1.3%) exceeded 5mm/s. FY 2020 Annual Review states 4 blasts out of 183 (2.19%) exceeded 5mm/s Based on site interview with blast team (29/9/2020) all blasts planned in accordance with preblast procedures including predicted airblast and vibration levels based on site laws. Modifications to blasts made if predictions within a threshold of exceedance. Site laws regularly updates.	
L6.5	The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed: 10 mm/second at any time; at either monitoring point 7, 8, 9 or 10 in Condition P1.4.	Compliant	FY 2018, 2019 and 2020 Annual Reviews state no exceedances of the 10 mm/s limit	
L6.6	Offensive blast fume must not be emitted from the premises. Definition: Offensive blast fume means post-blast gases from the detonation of explosives at the premises that by reason of their nature, duration, character or quality, or the time at which they are emitted, or any other circumstances: 1. are harmful to (or likely to be harmful to) a person that is outside the premises from which it is emitted, or 2. interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted.	Compliant	Blast Fume Event Key aspects of the incident: - Blasting occurred at 10:40am on 17 April 2019; - Blast was undertaken by Theiss - contractor - The EPA contacted MAC at 11:24am on 17 April to outline a complaint has been received and required an incident report by 24 April 2019. MAC provided some information by email (not an official report) on 19 April 2019. - MAC notified DPIE at 9:26am on 19 April 2019. An official incident report was provided to DPIE on 10 May 2019, which is outside the 7 day notification period. This original incident report to DPIE was brief and didn't contain any photos of the flume incident. The report stated that 'Upon firing the blast at 10:30am on 17 April 2019 NOx fume was generated and given a 4C rating by the BHP appointed shotfirer'. The Incident report to DPIE dated 10 May 2019 stated: The following key findings were identified upon investigation: 1. Pre blast checklist did not identify level of fume as a risk; 2. Product selection in the area was not designed specifically for blasting in pre-strip and clay materials; 3. The blast was located in a pre-strip area with high clay content, resulting in an incomplete combustion reaction in the blast column upon firing. Additional training was completed for blast contractors. The incident report stated that the pre - blast checklist did not identify the level of blast fume as a risk. Based on the fact that the shot had been sleeping for 10 days and there was clay material in the blasting area, the blast fume risk should have been high. Additionally, changes to the explosives have been made since to Fortis clear gel which has reduced blast fume risk. It is noted that the initial blast fume rating in the email to DPIE on 19 April stated the blast was a 4A. The 10 May 2020 incident report stated the shot had a fume rating of 4C. Based on the incident report the fume dissipated and did not leave the mining lease and therefore offensive blast fume was not emitted from the premises.	
OPERATING CONDITIONS				
Activities must be carried out in a competent manner				
O1.1	Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Compliant	Based on the site inspection observations operations are generally carried out in a competent manner. There are some more observations from the site inspection including: - minor oils spills noted in the EMECO and Pit Master Lighting contractor compounds; - servicing area at EMECO is not banded and oils were not stored in banded areas. Recommendations with regard to improvements were discussed however, it is noted that this area will be decommissioned in October 2020. - Storage of materials in particular liquids and oils at the MAC stores was good with all liquids and hydrocarbons banded, with spill kits and SDSs. - Skip bin at Theiss used for oil filters was labelled as waste timber. - Waste management at MAC areas generally good with segregation noted.	As per Schedule 3 Condition 53 of the Project Approval. Improvement REC 11: Ensure all contractor areas are inspected as part of general inspections as these are areas of higher risk of poorer environmental management. Ensure future oil storage and servicing areas are within banded areas. This recommendation currently relates to the EMECO and Pit Master Areas only. Improvement REC 12: Consider completing a review of segregation requirements and labelling of bins across site to identify improvement opportunities. Improvement REC 13: Ensure inspections are completed at a higher interval at the Theiss Workshop as the area does not have a setup to trap potentially contaminated water/liquids prior to it leaving the Theiss workshop area. Additional controls could be put in place during servicing within this workshop to prevent leakage of hydrocarbons.
O2	Maintenance of plant and equipment	-		
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	Compliant	Calibration certificates and maintenance report have been provided and viewed for monitoring equipment and operation by appropriate personnel	
O2.2	The licensee is responsible for the correct operation of the sewage treatment system on their premises.	Compliant	Monthly functional inspections and maintenance reports of the STP documented and sighted for the audit period.	
O2.3	Correct operation involves regular supervision and system maintenance. The licensee must be aware of the system management requirements and must ensure that the necessary service contracts are in place.	Compliant	Monthly functional inspections and maintenance reports of the STP documented and sighted for the audit period.	
O2.4	The sewage treatment system must be serviced by a suitably qualified and experienced wastewater technician at least once in each quarterly period and a minimum of four times per year.	Compliant	Monthly functional inspections and maintenance reports of the STP documented and sighted for the audit period. Maintenance reports prepared by Lochinvar Waste Water Treatment Services	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
O2.5	The licensee must record each inspection and any actions required or recommended by the technician including all results of tests performed on the sewage treatment system by the technician as required in Condition O2.4.	Compliant	Monthly functional inspections and maintenance reports of the STP documented and sighted for the audit period. Maintenance reports prepared by Lochinvar Waste Water Treatment Services	
O2.6	The licensee must prepare a sewage treatment system maintenance program. The program must include: a) Certification from the system provider that the sewage treatment system is operating within its capacity; b) Date, time and results of all routine maintenance procedures undertaken to the sewage treatment system; and c) Provide written records of each quarterly inspection.	Compliant	Monthly functional inspections and maintenance reports of the STP documented and sighted for the audit period. Maintenance reports prepared by Lochinvar Waste Water Treatment Services	
O3	Dust	-		
O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Non-Compliant (Low)	MAC were issued with a show cause notice from the EPA with regard to excessive wheel dust generation on 14 November 2017. Following receipt of comments the EPA issued an Official Caution for failure to comply with condition O3.1 of the EPL. Non-compliance was self reported in the FY2018 Annual Review. Refer condition 24 of PA 09_0062 for further recommendations.	
O3.2	Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.	Non-Compliant (Low)	During the audit period MAC were issued two Penalty Notices from the EPA for failure to comply with condition O3.2 of the EPL due to: - Excessive wheel dust generation on 14 November 2017 and - Dust generated from the mine being visible over Denman and Edderton Roads on 26 October 2018. The non-compliances were self reported in the FY2018 and FY 2019 Annual Reviews. Refer condition 24 of PA 09_0062 for further recommendations.	
O4	Effluent application to land	-		
O4.1	Waste water utilisation areas must effectively utilise the waste water applied to those areas. This includes the use for pasture or crop production, as well as ensuring the soil is able to absorb the nutrients, salts, hydraulic load and organic materials in the solids or liquids. Monitoring of land and receiving waters to determine the impact of waste water application may be required by the EPA.	Not Triggered	Not triggered based on site communications	
O5	Processes and management	-		
O5.1	The licensee must ensure that any liquid and/or non liquid waste generated at the premises is assessed and classified in accordance with the EPA Waste Classification Guidelines as in force from time to time.	Compliant	Waste tracking database sighted with waste classified as follows: - Hazardous Recycled - Non-Hazardous Recycled - Hazardous Disposal - Non-hazardous disposal - Contained onsite	
O5.2	The licensee must ensure that waste identified for recycling is stored separately from other waste.	Compliant	Based on site inspections, waste is managed effectively at the site. Waste segregation and recycling was noted in multiple areas of the site.	
MONITORING AND RECORDING CONDITIONS				
Monitoring records				
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Compliant	4 years of EPL monitoring data available on the bhp website: https://www.bhp.com/sustainability/environment/regulatory-information/	
M1.2	All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them.	Compliant	4 years of EPL monitoring data available on the bhp website: https://www.bhp.com/sustainability/environment/regulatory-information/	
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	Compliant	EPL monitoring data available on the website has been sighted with all data including: a) date b) time c) sampling point The EPL monitoring data does not include the names of the persons undertaking the sampling; additional evidence of field sheets has been provided including this information.	
M2	Requirement to monitor concentration of pollutants discharged	-		
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Note	Refer individual conditions	
M2.2	Air Monitoring Requirements	Admin Non-compliance	As reported in the 2018 and 2019 Annual Returns due to instrument faults data capture was less than 90% at: Monitoring point 13 (86%) and 11 (85%) in 2018 and Monitoring point 12 (86%) and 14 (78%) in 2019. Based on site discussions and interviews, it is understood that MAC are working on procedures, including triggers and alerts when monitoring equipment goes off line to decrease the time for instrument faults to be identified and to increase the data capture.	NC REC 10: Continue to investigate methods of improving the reliability of continuous and real time monitoring systems to increase data capture.
M2.3	POINT 6	Not Triggered	Monitoring is only required during discharge. 2018, 2019 and 2020 Annual Reviews and Annual Returns state that there were no HRSTS discharges during the audit period.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action																				
	<p>POINT 15</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Faecal Coliforms</td> <td>colony forming units per 100 millilitres</td> <td>Quarterly</td> <td>Grab sample</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Faecal Coliforms	colony forming units per 100 millilitres	Quarterly	Grab sample	Admin Non-compliance	As reported in the 2019 Annual Return, only 3 quarterly samples were taken in 2019 with no sample collected for the fourth quarterly (July 2019).	NC REC 11: Ensure all sampling undertaken to required frequencies for LDP 15.												
Pollutant	Units of measure	Frequency	Sampling Method																					
Faecal Coliforms	colony forming units per 100 millilitres	Quarterly	Grab sample																					
M3	Testing methods - concentration limits	-																						
M3.1	Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.	Compliant	As detailed in the Air Quality Management Plan (approved 2019) air quality monitoring is undertaken in accordance with relevant Australian Standards.																					
Notes	<i>The Protection of the Environment Operations (Clean Air) Regulation 2010 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".</i>	Note																						
M3.2	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	Compliant	As stated in the Surface Water Monitoring Program: Surface water quality monitoring and sample collection, storage and transportation will be undertaken in accordance with the procedures outlined in the relevant sections of the Australian Standard for Water Quality Sampling AS/NZS 5667.1:1998. Laboratory analysis will be undertaken by a laboratory which has relevant accreditation by the National Association of Testing Authorities (NATA), Australia.																					
M4	Environmental monitoring	-																						
M4.1	Every 12 months the licensee must monitor noise from the premises in accordance with condition L5 to determine compliance with the limits specified in condition L5.1.	Compliant	Monthly noise monitoring is undertaken in accordance with the NMP. Monitoring results are reported in monthly monitoring reports and the Annual Reviews. Noise monitoring is typically undertaken during the night-time period only. One annual day, evening and night-time monitoring event is undertaken.																					
M5	Weather monitoring	-																						
M5.1	The licensee must monitor (by sampling and obtaining results by analysis) each weather parameter specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Compliant	Evidence of meteorological monitoring and use of the predicted monitoring system. Results are outlined in the Annual Review. Evidence of meteorological station in the field. Evidence of calibration and maintenance certificates. Mt Arthur Coal's primary statutory real-time meteorological station located at the mine's industrial area (WS09) is an essential component of the operation's environmental monitoring system. Wind speed, wind direction, temperature, rainfall, solar radiation and humidity data is collected at 15 minute intervals and relayed using radio telemetry. A secondary statutory real-time meteorological station, located off site to the north west of the mine at Wellbrook(WS10), also provides representative weather data for the mine site, including prevailing wind conditions, and is used in conjunction with WS09 to determine the presence and strength of temperature inversions in the local atmosphere as part of the pre-blast environmental assessment. Both statutory meteorological stations comply with the Australian Standard 2923-1987 Ambient Air – Guide for measurement of horizontal wind for air quality applications and the EPA's 2017 Noise Policy for Industry. This enables there to be a backup during slight outages.																					
	<table border="1"> <thead> <tr> <th>PARAMETER</th> <th>UNITS OF MEASURE</th> <th>FREQUENCY</th> <th>SAMPLING METHOD</th> </tr> </thead> <tbody> <tr> <td>Air temperature</td> <td>oC</td> <td>Continuous</td> <td>Instrumental</td> </tr> <tr> <td>Wind direction</td> <td>Degrees</td> <td>Continuous</td> <td>Instrumental</td> </tr> <tr> <td>Wind speed or run</td> <td>m/sec</td> <td>Continuous</td> <td>Instrumental</td> </tr> <tr> <td>Rainfall</td> <td>mm</td> <td>Daily</td> <td>Instrumental</td> </tr> </tbody> </table>	PARAMETER	UNITS OF MEASURE	FREQUENCY	SAMPLING METHOD	Air temperature	oC	Continuous	Instrumental	Wind direction	Degrees	Continuous	Instrumental	Wind speed or run	m/sec	Continuous	Instrumental	Rainfall	mm	Daily	Instrumental			
PARAMETER	UNITS OF MEASURE	FREQUENCY	SAMPLING METHOD																					
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Rainfall	mm	Daily	Instrumental																					
M6	Recording of pollution complaints	-																						
M6.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Compliant	Complaints log for the audit period provided.																					
M6.2	The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.	Compliant	Complaints log on the website includes: a, b, d, e and f Personal details of the complaint are not recorded on the website for privacy. Personal details maintained internally and allow tracking of complaints by types, times, complainant etc.																					
M6.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Compliant	Community complaints log viewed on the website dating to June 2014																					
M6.4	The record must be produced to any authorised officer of the EPA who asks to see them.	Compliant	Community complaints log is publicly available.																					
M7	Telephone complaints line	-																						
M7.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Compliant	MAC operates a free call 24 hour Community Response Line (1800 882 044).																					
M7.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	Compliant	The MAC Community Response Line is advertised in local newspapers and the website (www.bhp.com). Goes out at least quarterly in local newspapers, newsletters to all nearest neighbours and in CCC.																					
M7.3	The preceding two conditions do not apply until 3 months after: the date of the issue of this licence	Not Triggered	Outside of the audit period																					
M8	Requirement to monitor volume or mass	-																						
M8.1	For each discharge point or utilisation area specified below, the licensee must monitor: a) the volume of liquids discharged to water or applied to the area; b) the mass of solids applied to the area; c) the mass of pollutants emitted to the air; at the frequency and using the method and units of measure, specified below.																							

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action												
	<p>POINT 6</p> <table border="1"> <thead> <tr> <th>Frequency</th> <th>Unit of Measure</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Continuous during discharge</td> <td>megalitres per day</td> <td>Weir structure and level sensor</td> </tr> </tbody> </table> <p>POINT 15</p> <table border="1"> <thead> <tr> <th>Frequency</th> <th>Unit of Measure</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Continuous during discharge</td> <td>kilolitres per day</td> <td>Flow meter and continuous logger</td> </tr> </tbody> </table>	Frequency	Unit of Measure	Sampling Method	Continuous during discharge	megalitres per day	Weir structure and level sensor	Frequency	Unit of Measure	Sampling Method	Continuous during discharge	kilolitres per day	Flow meter and continuous logger	Admin Non-compliance	As reported in the 2018 Annual Review, the EPL point 15 flow meter and continuous logger were identified to have been inactive for an unknown period of time. Based on discussions with MAC there is a process in place now to ensure the meter is being checked. No further recommendations.	
Frequency	Unit of Measure	Sampling Method														
Continuous during discharge	megalitres per day	Weir structure and level sensor														
Frequency	Unit of Measure	Sampling Method														
Continuous during discharge	kilolitres per day	Flow meter and continuous logger														
M8.2	Condition M8.1 for monitoring point 15 comes into effect on 1 October 2017.	Note														
M9	Blasting	-														
M9.1	To determine compliance with conditions L6.2 and L6.3: a) Airblast overpressure and ground vibration levels must be measured and electronically recorded for monitoring points 7, 8, 9 and 10 for the parameters specified in Column 1 of the table below; and b) The licensee must use the units of measure, sampling method, and sample at the frequency specified opposite in the other columns.	Non-Compliant (Low)	On 12 February and 5 March 2019 airblast overpressure and ground vibration results were not recorded at the Denman Road West (BP09) or Yammanie North (BP10) monitors for two blast events. The non-compliance was self reported in the FY2019 Annual Review. This has since been rectified, therefore no further recommendation.													
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Units of Measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Airblast Overpressure</td> <td>Decibels (Linear Peak)</td> <td>All Blasts</td> <td>Australian Standard AS 2187.2-2006</td> </tr> <tr> <td>Ground Vibration Peak Particle Velocity</td> <td>millimetres/second</td> <td>All Blasts</td> <td>Australian Standard AS 2187.2-2006</td> </tr> </tbody> </table>	Parameter	Units of Measure	Frequency	Sampling Method	Airblast Overpressure	Decibels (Linear Peak)	All Blasts	Australian Standard AS 2187.2-2006	Ground Vibration Peak Particle Velocity	millimetres/second	All Blasts	Australian Standard AS 2187.2-2006			
Parameter	Units of Measure	Frequency	Sampling Method													
Airblast Overpressure	Decibels (Linear Peak)	All Blasts	Australian Standard AS 2187.2-2006													
Ground Vibration Peak Particle Velocity	millimetres/second	All Blasts	Australian Standard AS 2187.2-2006													
M10	Other monitoring and recording conditions HRSTS Monitoring	-														
M10.1	The licensee must continuously operate and maintain communication equipment which makes the conductivity and flow measurements, taken at Point 6 available to the Department of Land and Water Conservation within one hour of those measurements being taken and makes them available in the format specified in the "Hunter River Salinity Trading Scheme Discharge Point Site Equipment" as published by the Department of Land and Water Conservation on 7 May 2002.	Compliant	Example maintenance work orders and inspections of the monitoring equipment provided. It is noted that monitoring is only required during discharge. 2018, 2019 and 2020 Annual Reviews and Annual Returns state that there were no HRSTS discharges during the audit period.													
M10.2	The licensee must ensure that all monitoring data is within a margin of error of 5% for conductivity measurements and 10% for discharge flow measurement.	Not Triggered	Monitoring is only required during discharge. 2018, 2019 and 2020 Annual Reviews and Annual Returns state that there were no HRSTS discharges during the audit period.													
M10.3	The licensee must mark monitoring point(s) 5 & 6, with a sign which clearly indicates the name of the licensee, whether the monitoring point is up or down stream of the discharge point(s) and that it is a monitoring point for the Hunter River Salinity Trading Scheme.	Compliant	Not sighted during the site inspection but photographic evidence provided post inspection confirming signage.													
	Waste Oil Monitoring Requirements	-														
M10.4	The Licensee must ensure that each delivery of waste oil received at the premises is subject to statistically valid sampling and analysis to assess whether the waste oil complies with the limits detailed in Condition L4.4 of this Licence. The analysis of waste oil must be conducted strictly in accordance with the testing methods specified in Condition L4.4 of this Licence.	Not Triggered	According to site communications this has not been triggered and waste oil is not currently utilised in blasting. This condition has been retained in the recent EPL variation to allow flexibility should this method be used in the future.													
	Requirement to Monitor Particulate Matter	-														
M10.5	The Licensee must record the average PM10 concentration at Monitoring Points 11, 12, 13 and 14 at intervals of 10 minutes. This data must be made available upon request by any Authorised Officer of the EPA who asks to see them.	Compliant	Raw PM10 monitoring data sighted evidencing that the PM10 concentration is recorded in 5 minute intervals which exceeds the requirements of this condition.													
REPORTING CONDITIONS																
Annual return documents																
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: 1. a Statement of Compliance, 2. a Monitoring and Complaints Summary, 3. a Statement of Compliance - Licence Conditions, 4. a Statement of Compliance - Load based Fee, 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan, 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and 7. a Statement of Compliance - Environmental Management Systems and Practices. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	Compliant	Evidence of signed Annual Returns for 2017, 2018 and 2019 sighted. Annual returns are submitted via e-connect, evidence of all submissions on e-connect have been provided. Evidence of 2019 e-connect submission confirmation email sighted. 2018 and 2019 submission dates have not been verified but there are no indications that the submissions were not on time.													
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	Compliant	Evidence of signed Annual Returns for 2017, 2018 and 2019 sighted.													
Note	The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.	Note														
R1.3	Where this licence is transferred from the licensee to a new licensee: a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.	Not Triggered	The EPL has not been transferred during the audit period													
Note	An application to transfer a licence must be made in the approved form for this purpose.	Note														
R1.4	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.	Not Triggered	The EPL has not been surrendered or revoked during the audit period													

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
R1.5	The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	Compliant	Evidence of signed Annual Returns for 2017, 2018 and 2019 sighted. Annual returns are submitted via e-connect, evidence of all submissions on e-connect have been provided. Evidence of 2019 e-connect submission confirmation email sighted. 2018 and 2019 submission dates have not been verified but there are no indications that the submissions were not on time.	
R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	Compliant	2017, 2018 and 2019 Annual Returns sighted.	
R1.7	Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	Compliant	Digital, signed authorities sighted for 2017, 2018 and 2019 Annual Returns sighted.	
R1.8	The licensee must supply annually a Blast Monitoring Report with the Annual Return, which must include the following information relating to each blast carried out within the premises during the respective reporting period: a) the date and time of the blast; b) the location of the blast; c) the blast monitoring results at each blast monitoring station; and d) an explanation for any missing blast monitoring readings.	Compliant	Evidence of the submission of all annual returns via econnect have been sighted and as have the Blast Monitoring Reports.	
R2	Notification of environmental harm	-		
Note	The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	Compliant	The Project Approval defines an incident as: A set of circumstances that: - causes, or threatens to cause, material harm to the environment; and/or - breaches or exceeds the limits or performance measures/criteria in this approval	
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	Compliant	A summary of incidents was outlined within the Annual Review and EPL Annual Returns. Evidence was provided for the incident report notification and reporting. Based on the information provided this condition was met. However it is noted that some incident reports were not sufficiently detailed. For example the incident report for the blast fume incident had the submission date extended to extended 10 May 2019. This report did not contain any photographs of the incident. Consistent information should be provided in the incident reports.	
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	Compliant		
R3	Written report	-		
R3.1	Where an authorised officer of the EPA suspects on reasonable grounds that: a) where this licence applies to premises, an event has occurred at the premises; or b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	Compliant	Evidence was provided with regard to Show Cause Notices and Notices to Provide Information as received from the EPA during the audit period. Multiple responses provided as evidence. Evidence indicates appropriate responses and consultation with EPA and the preparation of requested information and investigation reports. For example: - Notice to Provide Information and/or Records issued by the Environmental Protection Authority (EPA) on 4 December 2018 and response letter dated 17 December 2018 - Show Cause Notice on 17 March 2020 and response investigation reports dated 20 April 2020, and 22 June 2020	
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	Compliant		
R3.3	The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters.	Compliant		
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	Compliant		
R4	Other reporting conditions	-		
R4.1	HRSTS Reporting The licensee must compile a written report of the activities under the Scheme for each scheme year. The scheme year shall run from 1 July to 30 June each year. The written report must be submitted to the EPA's regional office within 60 days after the end of each scheme year and be in a form and manner approved by the EPA. The information will be used by the EPA to compile an annual scheme report.	Admin Non-compliance	Evidence of submission of 2018, 2019 and 2020 sighted. 2018 Submission not completed until 2 October 2018, outside of required 60 day reporting period (required by end August 2018). No further recommendation as it has since been completed.	
R4.2	Reporting of Blasting Monitoring The licensee must report any exceedance of the licence blasting limits to the regional office of the EPA as soon as practicable after the exceedance becomes known to the licensee or to one of the licensee's employees or agents.	Compliant	MAC's exceedance tracked has been sighted including blast monitoring exceedances and notification dates.	
R4.3	Spontaneous Combustion Control Program Reporting The monthly summaries, monthly assessments and monthly maps prepared under the spent combustion control program must be submitted to the EPA in the form of a 6 monthly report. The licensee must forward a copy of each 6 monthly report to the regional office of the EPA no later than two months after the 6 monthly period being reported.	Compliant	6 monthly reports prepared in accordance with this condition have been sighted including the summary of monthly results.	
R4.4	The monthly summaries, assessments and maps must be retained by the licensee for not less than four (4) years following the month under review. The records must be kept in a legible form and must be made available to any authorised officer of the EPA on request.	Compliant	Evidence of long term MAC data retention sighted.	
R4.5	5 The Licensee must supply the following information with the Annual Return: a) The number of deliveries and the total quantity of waste oil received at the premises during the reporting period; b) The results of all waste oil testing conducted in accordance with the conditions of this licence during the reporting period; c) The total amount of waste oil used in blasting operations during the reporting period.	Not Triggered	According to site communications this has not been triggered and waste oil is not currently utilised in blasting. This condition has been retained in the recent EPL variation to allow flexibility should this method be used in the future.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action																		
R4.6	The sewage treatment system maintenance program required by Condition O2.6 must be submitted annually to the EPA with the Annual Return.	Compliant	Evidence of the submission of all annual returns via econnect have been sighted and monthly functional inspections and maintenance reports of the STP documented and sighted for the audit period.																			
R4.7	The licensee must retain a copy of each report required by Condition O2.5 for 3 years from the date each record is made.	Compliant	Evidence of long term MAC data retention sighted.																			
GENERAL CONDITIONS																						
Copy of licence kept at the premises or plant																						
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	Compliant	EPL publicly available and accessible via the MAC website																			
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	Compliant	EPL publicly available and accessible via the MAC website																			
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	Compliant	EPL publicly available and accessible via the MAC website																			
G2	Other general conditions	-																				
G2.1	Completed Programs	Not Triggered	These programs have been completed prior to the Audit Period.																			
	<table border="1"> <thead> <tr> <th>Program</th> <th>Description</th> <th>Completed Date</th> </tr> </thead> <tbody> <tr> <td>Coal Mine Particulate Matter Control Best Practice</td> <td>Site specific determination of particulate matter control against best management practice.</td> <td>13-February-2012</td> </tr> <tr> <td>Particulate Matter Control Best Practice Implementation – Wheel Generated Dust</td> <td>Implementation of particulate matter best management practices to address wheel-generated dust.</td> <td>15-August-2014</td> </tr> <tr> <td>Particulate Matter Control Best Practice Implementation - Disturbing and Handling Overburden Under Adverse Weather Conditions</td> <td>Implementation of particulate matter best management practices to address the handling of overburden during adverse weather.</td> <td>15-August-2014</td> </tr> <tr> <td>Particulate Matter Control Best Practice Implementation - Trial of Best Practice Measures for Disturbing and Handling Overburden</td> <td>Investigation to establish best practice measures for the handling of overburden.</td> <td>30-July-2014</td> </tr> <tr> <td>Coal Mine Wind Erosion of Exposed Land Assessment</td> <td>Assessment of predicted vs actual exposed land</td> <td>23-January-2017</td> </tr> </tbody> </table>	Program	Description	Completed Date	Coal Mine Particulate Matter Control Best Practice	Site specific determination of particulate matter control against best management practice.	13-February-2012	Particulate Matter Control Best Practice Implementation – Wheel Generated Dust	Implementation of particulate matter best management practices to address wheel-generated dust.	15-August-2014	Particulate Matter Control Best Practice Implementation - Disturbing and Handling Overburden Under Adverse Weather Conditions	Implementation of particulate matter best management practices to address the handling of overburden during adverse weather.	15-August-2014	Particulate Matter Control Best Practice Implementation - Trial of Best Practice Measures for Disturbing and Handling Overburden	Investigation to establish best practice measures for the handling of overburden.	30-July-2014	Coal Mine Wind Erosion of Exposed Land Assessment	Assessment of predicted vs actual exposed land	23-January-2017			
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SPECIAL CONDITIONS																						
Spontaneous Combustion Control Program																						
E1.1	Carbonaceous material that is prone to self heating and which is not extracted as run of mine coal must be selectively removed and purposely disposed of in such a manner that will prevent the development of spontaneous combustion at the disposal site.	Compliant	6 monthly reports prepared in accordance with condition R4.3 have been sighted including the summary of monthly results including selective handling and management of spontaneous combustion..																			
E1.2	The licensee must implement a Spontaneous Combustion Control Program which must include but not be limited to the following: (a) A monthly summary of actions and procedures undertaken to prevent the development or to control the spread of spontaneous combustion at the premises; (b) An assessment of the effectiveness of the actions and procedures undertaken each month in preventing the development and control of the spread of spontaneous combustion at the premises; (c) Monthly mapping of the approximate location of the areas subject to spontaneous combustion at the premises. The map must show the respective areas in square metres of each area affected and must include a key to show the relative intensity of the heatings	Compliant	As detailed in the MOP, management of spontaneous combustion include: - Monitoring for signs spontaneous combustion; - Remedial action of spontaneous combustion; and - Overburden emplacement and coal stockpile designed to minimise Spontaneous combustion potential Relevant BHP and Mt Arthur Coal documents providing detailed management of spontaneous combustion include the MAC-ENC-PRG-002 Spontaneous Combustion Control Program. As detailed in the 6 monthly reports, as part of monthly inspections, plans are updated with the location, size and intensity of areas affected by spon com. The 6 monthly report also summarises the actions undertaken during the reporting period																			
E2	Hunter Valley Dust Risk Forecasting Trial - Spring 2017	-																				
E2.1	From 1 September 2017 to 30 November 2017 inclusively, the licensee must electronically record the following information: 1) Daily Total Tonnes Moved; and 2) Timestamped PM10 concentrations from upwind and downwind of the premises, recorded in ten minute intervals at monitoring points: 11, 12, 13 and 14. For the purposes of this condition 'Total Tonnes Moved' is calculated as: Total Tonnes Moved = Run of Mine (ROM) coal moved + Total Overburden Moved (TOM) Where: (a) ROM must be expressed in tonnes; and (b) TOM must be expressed in tonnes and must be determined by multiplying bank cubic metres of overburden moved by a density of 2.4 tonnes per bank cubic metre. TOM must include rehandled overburden.	Compliant	Complete submission of the trial data provided and sighted including: - submission letter dated 18 January 2018. As per submission the data provided included "collated real-time particulate matter monitoring from Mt Arthur Coal Mine (Monitoring Points 11, 12, 13 and 14 as defined in Environment Protection Licence 11457) for the period of 1 September 2017 – 30 November 2017. Our data collection has been highly successful, with greater than 98.3% of possible samples captured, reported and validated."																			
E2.2	The licensee must provide an electronic set of Excel spreadsheets with a separate tab for each of the items identified in Condition E2.1 to the EPA at hunter.region@epa.nsw.gov.au by 19 January 2018.	Compliant	Submission letter email and letter dated 18 January 2020 provided.																			
E3	Hunter River Salinity Trading Scheme	-																				
E3.1	This licence authorises the discharge of saline water into the Hunter River Catchment from an authorised discharge point (or points), in accordance with the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002.	Not Triggered	No discharges during the audit period																			
E3.2	For the purposes of Clauses 23 and 29 of the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002 the licensee must apply the conversion factor of 0.6.	Not Triggered	No discharges during the audit period																			

Mitigation Measures and Management (Section 4) from Mt Arthur Coal Open Cut Modification - Environmental Assessment 2013

Reference	Commitment	Requirement	Compliance Status	Evidence Collected	Recommendation
Mt Arthur Coal Open Cut Modification - Environmental Assessment 2013					
LAND RESOURCES					
Landforms and Topography	4.3.3	Producing slope angles, lengths and shapes that are compatible with the proposed land use and not prone to an unacceptable rate of erosion. This would be integrated with drainage structures and dams capable of conveying runoff from the newly created catchments whilst minimising the risk of erosion and sedimentation. This includes contour furrows or contour banks at intervals down the slope, contour ripping across the grade, and graded banks where required.	Compliant	Landform and topography design is detailed in Section 7.3.3 of the approved MOP. As stated in the MOP: <i>The geomorphic design method used is an adaptation of the Geofluv™ approach and is currently being used on several emplacements across Mt Arthur Coal. The Geofluv™ approach uses the characteristics of stable natural alluvial landforms in the local environment as an analogue on which to base the design of overburden landforms. Importantly, the approach does not replicate existing landforms, but rather uses the key characteristics that make these landforms stable in a new design. Natural landforms in alluvial materials are characterised by an integrated network of drainage channel, typically with slopes initially convex close to ridge lines, becoming concave and progressively flattening with increasing catchment area. Not all landforms will have Geofluv™, as there are places where it may not be practical to implement due to safety, stability, or land use.</i>	
		Engineered waterways, spillways and sediment control dams (using erosion blankets, groundcover vegetation and/or rip rap) are implemented to capture sediment laden runoff prior to off-site release and designed and located so as to safely convey the maximum anticipated discharge.	Compliant	Water management and erosion and sediment controls are detailed in the Water Management Plan and the MOP. No excessive erosion or sedimentation was noted during the site inspection.	
		Progressively rehabilitating the site to further integrate constructed landforms with the surrounding landscape. Rehabilitation and landscape management strategies are detailed in Section 5.	Compliant	Progressive rehabilitation including key performance indicators are detailed in the approved MOP and is reported in the Annual Reviews.	
Soils	4.3.3	Materials are stripped to indicated levels preferably in moist conditions, and placed directly onto reshaped areas where practical.	Compliant	Procedure is detailed in the MOP/Rehab Management Plan. Based on the findings of the rehabilitation specialist, the site was compliant with this aspect of the RMP.	
		Where topsoil must be stockpiled, efforts are made to reduce compaction with as coarsely textured a condition as possible.	Compliant	Procedure is detailed in the MOP/Rehab Management Plan. Based on the findings of the rehabilitation specialist, the site was compliant with this aspect of the RMP.	
		Stockpiles are a maximum of 3 m in height and if stored for greater than 12 months, seeded and fertilised and treated for weeds prior to respreading at around 0.1 m in depth.	Compliant	Based on the findings of the rehabilitation specialist, the site was generally compliant with this condition however, one stockpile was identified to have not been seeded. <i>Soil stockpiles should be shaped and seeded if greater than 6 months storage is planned. Stockpiles were observed to not be shaped or seeded with cover crop or pastures.</i>	
		An inventory of designated areas and available soil would be maintained to ensure adequate topsoil materials are available for planned rehabilitation activities.	Non-Compliant (Low)	There is no site wide soil balance. This needs to be undertaken as soon as possible in order to manage the soil resources effectively in regard to meeting required soil depth across future rehabilitation areas. Furthermore, in the event of a site deficit, work needs to be undertaken for alternatives. Soil stockpiles were observed to require herbicide treatments and signage. Based on the findings of the rehabilitation specialist, a complete soil balance is required for the site. <i>This is urgent and critical to long term rehabilitation planning and future costings.</i>	
		Thorough seedbed preparation is undertaken to ensure optimum establishment and growth of vegetation with all topsoiled areas lightly contour ripped (after topsoil spreading) to create a "key" between the soil and the spoil.	Compliant	Procedure is detailed in the MOP/Rehab Management Plan. Based on the findings of the rehabilitation specialist, the site was compliant with this aspect of the RMP.	
		operator and driver training and licensing for their job descriptions; and	Compliant	Appropriately trained personnel employed.	
Land Use – Agricultural Activities and Productivity	4.3.3	Minimisation of disturbance to agricultural lands, where practicable;	Compliant	Disturbance areas are in accordance with the approved area presented in the MOP.	
		management of soil resources at the Mt Arthur Coal Mine so that they can be used for rehabilitation; and	Compliant	Based on the findings of the rehabilitation specialist, soils are generally appropriately managed for use in rehabilitation	
		inclusion of agricultural lands in rehabilitation areas.	Compliant	As detailed in the Project approval and the MOP, at least 33 hectares of Class II agricultural capability land in the area identified in the rehabilitation plan (see Appendix 7) Rehabilitate other areas identified for agricultural use in the rehabilitation plan to sufficient agricultural capability to support grazing	
Minimisation of Disturbance to Agricultural Lands	4.3.3	The area of agricultural land disturbed by the Modification at any one time would be minimised so that beneficial agricultural uses can continue to be undertaken on available Modification grazing lands. As demonstrated by HVEC at the existing Mt Arthur Coal Mine, grazing agricultural activities can be undertaken in conjunction with the operation of a mine. In addition, HVEC supports agricultural activities in the vicinity of the Mt Arthur Coal Mine, as evidenced by Edinglassie (horse breeding) and Roxburgh Vineyard (viticulture) (Appendix A).	Compliant	Areas of disturbance are in accordance with the approved MOP.	
Bushfire Hazard	4.3.3	HVEC would continue to implement the existing bushfire management measures as per the Bushfire Management Plan and consult with the Muswellbrook BFMC and the Rural Fire Service, and provide assistance to these organisations as required.	Compliant	Evidence of internal bushfire management procedures (BHP and site Procedure). Fire suppression and control is achieved through on-site fire-fighting equipment, including a rescue truck and water carts. Evidence of inspection and maintenance along fire breaks from 2018.	
GROUNDWATER					

Reference	Commitment	Requirement	Compliance Status	Evidence Collected	Recommendation
Groundwater Monitoring	4.3.3	Groundwater monitoring at the Mt Arthur Coal Mine would continue to be undertaken in accordance with the Ground Water Monitoring Program (BHP Billiton, 2012e). The Ground Water Monitoring Program would be reviewed and, if necessary, revised to incorporate the Modification.	Non-Compliant (Low)	Groundwater monitoring FY2019 was not undertaken following the recommendations in the GWMP, rather it followed the revised monitoring and triggers recommended in interim monitoring program (2018/2019 Annual monitoring review) suggesting a number of changes. This resulted in non-compliances in monitoring frequency which changed to quarterly instead of two monthly, water quality data not being collected for required sites and reducing the number of water quality sampling events. Monitoring reported in FY20 report was in accordance with GWMP. Revised Site Water Management Plan with Groundwater monitoring plan was submitted to DPI in 2020 for comment. Surface water and groundwater response plan needs to be updated if the proposed and submitted SWMP is approved by DPIE. SWMP needs to have all baseline groundwater quality parameters presented in tabulated or graphed form, at present only EC and pH are presented. These parameters are collected as part of the monitoring suite and baseline data are required for later comparison.	NC REC 12: Surface Water and Groundwater Response Plan needs to be updated if the proposed and submitted SWMP is approved by DPI.
Impact on Groundwater Users	4.3.3	The Surface and Groundwater Response Plan (BHP Billiton, 2012f) would be reviewed and, if necessary, revised to incorporate the Modification. Notwithstanding the negligible effects due to the Modification predicted at surrounding private bores (Appendix B), consistent with the Project Approval for the Mt Arthur Coal Mine – Open Cut Consolidation Project Statement of Commitments: <i>In the event of interruption to water supply resulting from the Project, an alternative water supply will be provided, until such interruption ceases.</i> The process for identifying and compensating the interruption to water supply resulting from Mt Arthur Coal operations would be in accordance with the "protocol for adverse affects to nearby users" outlined in the Surface and Groundwater Response Plan (BHP Billiton, 2012f).	Non-Compliant (Low)	No review of Surface and Groundwater Response plan is proposed by Mt Arthur. No discussion in the annual reports relating to private bores and potential interruption to water supply resulting from Mt Arthur operation is assumed to indicate no complaints were received from private bore owners.	As per Schedule 3 Condition 34 recommendation. Annual reporting needs to make a record of no complaints from the private bore owners.
Impacts on Hunter River Alluvium		In addition, notwithstanding the minor impacts to alluvium associated with the Modification, consistent with the Project Approval for the Mt Arthur Coal Mine – Open Cut Consolidation Project Statement of Commitments: Mt Arthur Coal will continue to monitor hydro-geomorphological conditions and scrutinise for evidence of any groundwater ingress or endwall instability indicators as it progresses the previously approved mining towards the Hunter River Alluvials. Mining (other than that already approved in the MAN [Mt Arthur North] EIS) will not extend beyond a nominal 150 m buffer zone from the Hunter River Alluvials until agreement is reached with DWE regarding the installation of a lower permeability barrier along the point of connections of mining and the alluvium or other appropriate safeguards.	Non-Compliant (Low)	Section 7.4 of the Annual review FY2019 has assessed the hydro-geomorphological conditions related to cutoff wall. This report states that: <i>depressurisation observed in the underlying Permian coal seam has not significantly impacted upon groundwater levels within the alluvium</i> However, comparison of data with model, indicated that model under predicted drawdown compared to observed data. The report suggested that the model be updated. Report recommends ongoing monitoring of hydro-geomorphological conditions.	NC REC 13: It is recommended that the groundwater model be verified such that the predicted drawdown reflects the observed drawdown and that hydro-geomorphological conditions can be assessed accurately.
SURFACE WATER					
	4.5.3	Surface water management at the Mt Arthur Coal Mine would continue to be undertaken in accordance with the Site Water Management Plan (BHP Billiton, 2012a) and supplementary appendices (i.e. the Site Water Balance, Erosion and Sediment Control Plan, Surface Water Monitoring Program, Groundwater Monitoring Program and Surface and Groundwater Response Plan). The Site Water Management Plan (BHP Billiton, 2012a) would be reviewed, and if necessary, revised to incorporate the Modification.	Compliant	The current version of the SWMP is dated August 2012. Surface water management continues to be undertaken in accordance with this SWMP. An updated version of the Site Water Management Plan is required and MAC has been in consultation with DPIE regarding this Plan. Evidence of a Draft Site Water Management Plan with DPIE dated April 2020. This has not yet been approved hence is not part of the IEA.	
FLORA AND FAUNA					
Koala Monitoring	4.6.3	The Koala would continue to be monitored through the existing annual ecological monitoring surveys and pre-clearance surveys.	Compliant		
		Revegetation of the post-mine landforms: The rehabilitation strategy provides for areas for biodiversity outcomes (e.g. woodland corridors) and areas of pasture (the predominant previous site land use). However, the strategy aims for a net increase in native vegetated areas at the end of mine life. Surface development areas associated with the Mt Arthur Coal Mine are progressively rehabilitated and revegetated with species characteristic of native species endemic to the local area. Annual ecological monitoring has taken place at the Mt Arthur Coal Mine from 2003 (Umwelt, 2003, 2005, 2006a, 2007b; Cumberland Ecology, 2009a, 2010a, 2010b; Wild thing Environmental Consultants, 2008). Permanent monitoring plots within remnant and rehabilitation areas have been established throughout the Mt Arthur Coal Mine site and are monitored annually. The BRMP (BHP Billiton, 2012h) describes the use of artificial roosting/nesting boxes, nesting structures (mammal and avian), fallen timber and creation of drainage depressions for frogs.	Noted	Noted. This is not specifically a commitment.	
		Rehabilitation of creeks and drainage lines on the site: The drainage pattern of the final landform would be designed to integrate with the surrounding catchments and revegetated to achieve long-term stability and erosion control.	Not Triggered	This is a final landform condition. Note yet triggered.	
		Management of salinity: Salinity levels in topsoil and subsoil are monitored to prevent salinity impacting on vegetation establishment and landform stability.	Compliant	As detailed in the MOP, soil sampling is undertaken across stripped topsoil, topsoil stockpiles and older rehabilitated areas as an ongoing basis. Salinity levels in soils leading to erosion or limited vegetation sampling are included in the rehabilitation TARP presented in the MOP.	
		Conservation and re-use of topsoil: Topsoil is currently conserved so that it can be respread onto the surface during rehabilitation. Respread topsoil may contain native seed and beneficial micro-organisms which have been shown to be advantageous to the more rapid development of a sustainable and productive ecosystem.	Compliant	Topsoil has not been conserved well historically and the site has a deficit. However evidence has been provided of conservation of topsoil for areas cleared during the IEA period. There are recommendations relating to topsoil and ameliorates in Schedule 3 Condition 44.	
		Protection of vegetation and soil outside of the disturbance areas: Conservation and Offset areas have been created to protect vegetation and soil outside of the disturbance area.	Compliant	This condition refers to offset areas. Based on information provided this condition is compliant.	
		Pre-clearance surveys: Pre-clearance surveys are conducted within all patches of forest and woodland to be cleared and threatened flora and fauna species detected are translocated into protected habitat. Planned disturbance areas are delineated prior to clearing activities, with restriction of clearing to the minimum area necessary to undertake the approved activities.	Compliant	Pre-Clearance survey protocol outlined in the BMP. Evidence of surveys.	

Reference	Commitment	Requirement	Compliance Status	Evidence Collected	Recommendation
Existing Impact Avoidance and Mitigation Measures at the Mt Arthur Coal Mine	Table 4-11	Collecting and propagating seed: Seed present during land clearance activities would be collected for use in plant propagation programmes to provide tube stock for revegetation activities. The Mt Arthur Coal Mine has an existing Consent Condition requiring re-establishment of Acacia pendula. This has involved collection of seed from Acacia pendula to be used in a propagation programme.	Compliant	Refer to Schedule 3 Condition 14 of Mod 1 PA audit sheet. Some evidence was provided for collection of seed from the conservation and offset areas. Seed collection is also detailed in the BMP as approved in May 2019.	
		Salvaging and reusing material from the site for habitat enhancement: Large woody debris deemed suitable for habitat enhancement is identified as part of pre-clearance and post-clearance and are salvaged and re-used for habitat enhancement.	Compliant	Process for salvaging material for habitat is included in the MOP and BMP.	
		Nest Box Programme: A nest box monitoring programme is currently undertaken at the Mt Arthur Coal Mine. A total of 48 nest boxes have been established at two remnant sites (one site is within the Thomas Mitchell Drive Offset area). These boxes are visually examined annually for the presence of scats, nesting material, chewing or scratching marks, discarded bones, etc.). Box types include: Squirrel Glider boxes, microbat boxes and bird boxes.	Compliant	Nest box monitoring results are presented in the Annual Reviews.	
		Controlling weeds: In 2010, Mt Arthur Coal developed a weed action plan to improve the management of noxious and environmental weeds, which identifies priority areas as well as individual species requiring management.	Compliant	Weed and pest management is detailed in the MOP and reported in the Annual Reviews.	
		Controlling feral pests: Measures to control exotic animals are implemented by an appropriately qualified person(s) and include: the destruction of pest habitat; trapping; targeted shooting programmes and baiting. Follow-up inspections would be undertaken to assess the effectiveness of control measures implemented and the requirement for any additional control measures.	Compliant	Weed and pest management is detailed in the MOP and reported in the Annual Reviews.	
		Managing grazing and agriculture on-site: Several measures are currently undertaken to manage grazing including managing stock, grazing and fertiliser use.	Noted		
		Controlling access: Access is controlled by restricting vehicle access, preventing access to open pits or other hazardous locations, and constructing a safety berm and/or security fence at the void crest (highwalls and endwalls) to provide an engineered barrier between the pit and the surrounding area.	Compliant	Restricted access to the site was observed during the site inspection.	
		Bushfire management: Several measures are currently undertaken to manage bushfire including monitoring fuel loads, fire bans, restriction of potential ignition sources, emergency preparedness training for minesite personnel and the establishment of firebreaks.	Compliant	Evidence of internal bushfire management procedures (BHP and site Procedure). Fire suppression and control is achieved through on-site fire-fighting equipment, including a rescue truck and water carts. Evidence of inspection and maintenance along fire breaks from 2018.	
Proposed Additional Impact Avoidance and Mitigation Measures for the Modification	Table 4-12	Pine Donkey Orchid (Diuris tricolor) Translocation: If any Diuris tricolor are identified in the Modification area during the pre-clearance surveys an evaluation of whether or not the plants should be translocated would be made by an appropriately qualified person. For example, if only one plant was found then it may not be worth translocating due to the presence of known populations in the Thomas Mitchell Drive Offset area.	Not Triggered	As reported in the 2019 Annual Review, translocation trials were scheduled to be undertaken in Autumn 2021, with some trial work in Autumn 2020. The 2020 Annual Review reported that this was assessed and was determined not to be cost effective.	
		Weeping Myall (Acacia pendula) Propagation: The Mt Arthur Coal Mine has an existing Project Approval (Condition 38(b) of Schedule 3) requiring re-establishment of Acacia pendula. To date this has involved collection of seed from Acacia pendula to be used in a propagation programme. However, it is believed that the seed is being collected from local planted Acacia pendula not the Acacia pendula which is 'native' to the Hunter Catchment. Re-establishment of Acacia pendula would focus on trials of growing the plants from cuttings because the Acacia pendula which is 'native' to the Hunter Catchment is not known to produce seed.	Compliant	Re-establishment of Weeping Myall is considered in the Rehabilitation Strategy and MOP.	
		Weeping Myall (Acacia pendula) Translocation: If the trials to re-establishment of Acacia pendula via cuttings is not successful, the possibility of translocating Acacia pendula plants would be investigated. An evaluation of whether or not the plants should be translocated would be made by an appropriately qualified person.	Not Triggered	As reported in the 2019 Annual Review, translocation trials were scheduled to be undertaken in Autumn 2021, with some trial work in Autumn 2020. The 2020 Annual Review reported that this was assessed and was determined not to be cost effective.	
		Threatened Species Database: Threatened species sightings at the Mt Arthur Coal Mine would be reported to the environmental officer and maintained on a database.	Compliant	Threatened species sightings are reported in the Annual Reviews.	
Revegetation of the Post-mine Landforms	4.6.3	Refinements to the revegetation of the post-mine landforms would include (Appendix D): • limiting the location of the 'rehabilitation areas' to approved disturbance areas; • increasing the width of the 'rehabilitation areas' corridors to a minimum of 500 m; and • consideration of the landform and location of final voids.	Compliant	Revegetation and post mining landforms are approved under the MOP.	
Offsets	4.6.4	A modification to the existing Offset areas is proposed as part of the Modification (Figure 4-8). Two additional Offset areas would be required to account for additional clearance. This would include (Appendix D): • expanding the existing Saddlers Creek Conservation area by 131 ha; and • expanding the existing Middle Deep Creek Offset area by 410 ha.	Compliant	Offset areas finalised prior to the audit period. Assessed as compliant in 2017 audit.	
ABORIGINAL AND NON-INDIGENOUS CULTURAL HERITAGE ASSESSMENT					
		The existing Aboriginal Heritage Management Plan would be updated in consultation with the Aboriginal community and the OEH to specify management and mitigation measures relevant to the Modification area.	Admin Non-Compliance	Most recent version of the ACHMP was approved in August 2012. The ACHMP has not been updated since 2012. It is noted in Section 10 of the 2019 Annual Review that: 'AHMP is currently being reviewed and revised by Mt Arthur Coal, in consultation with OEH, the Aboriginal community, MSC and relevant landowners'. Comments were previously provided about updating management plans, hence no specific recommendation.	
		Where practicable, known Aboriginal heritage sites would be avoided during Modification construction and operation works.	Compliant	Based on the information provided to the Audit team there is no evidence of any incidents or disturbance of known sites associated with Aboriginal Cultural Heritage.	

Reference	Commitment	Requirement	Compliance Status	Evidence Collected	Recommendation
		Where avoidance of known Aboriginal heritage sites is not practicable, site(s) would be subject to baseline recording in consultation with the registered Aboriginal stakeholders prior to disturbance and artefacts would be salvaged for safekeeping in accordance with the stakeholder's wishes.	Compliant	Evidence of salvage reports, collections and storage of artefacts from the Annual Review. 2018 Annual Review states: during March 2018, salvage works were undertaken in the Edderton Road realignment area in collaboration with Gillian Goode from RPS archaeologists with the assistance of the registered Aboriginal parties. During January and February 2019, salvage works were undertaken to relocate the 'Fairford 1' grinding groove site from the Roxburgh pit area in collaboration with RPS archaeologists and with the assistance of the registered Aboriginal parties.	
		Salvaged Aboriginal objects would be transferred to a keeping place in the Thomas Mitchell Drive Offset Area (or other location determined in consultation with the registered Aboriginal stakeholders).	Compliant	There is little information in the ACHMP regarding the Thomas Mitchell Drive Offset Area Keeping Place (Section 5.4.4) however, the 2019 Annual Review states that the salvaged 'Fairford 1' grinding groove site has been relocated to a temporary keeping place, determined in consultation with the registered Aboriginal parties.	
		An attempt would be made to salvage and relocate the sandstone block on which grinding groove site (37-2-0111) to the Mount Arthur Conservation Area (or other location determined in consultation with the registered Aboriginal stakeholders).	Compliant	As reported in the 2019 Annual Review, the 'Fairford 1' grinding groove (37-2-0111) was salvaged and relocated in January and February 2019. The site has been relocated to a temporary keeping place, determined in consultation with the registered Aboriginal parties.	
		Any additional Aboriginal heritage sites which may be identified during the development of the Modification would be recorded and registered with the OEI in consultation with Aboriginal stakeholders. Should additional Aboriginal heritage sites be identified, they would be managed in accordance with the measures described in the Aboriginal Heritage Management Plan.	Not Triggered	Based on the information provided to the Audit team there is no evidence of any reportable incidents identification of additional sites associated with Aboriginal Cultural Heritage during the audit period.	
		Sample test pitting would be undertaken prior to salvage at sites PAD A and AS20 to AS25 to determine the need for subsurface salvage.	Not Triggered	Undertaken prior to the audit period and assessed as compliant in 2017 audit.	
		HVEC would maintain a record of known Aboriginal heritage sites (including on-site plans and in relevant Project documentation) and make employees and contractors aware of their location.	Compliant	Appendix 3 of the ACHMP presents the register of all known Aboriginal Cultural Heritage sites within the EA boundary. As reported in the Annual Reviews, the ACHMP is currently being updated in consultation with the DPIE, to update the disturbance boundary, cultural heritage site data as well as information about the grinding groove relocation.	
AIR QUALITY					
		As discussed in Section 4.8.1, HVEC currently employs air quality mitigation and management measures at the Mt Arthur Coal Mine which are generally considered best practice. These measures are described in the AQGGMP. In particular, HVEC operates a proactive dust management system which uses real-time air quality monitoring. This system involves alarms which, when triggered, involve additional dust management controls. HVEC would continue implement these mitigation measures for the Modification.	Compliant	During the audit period MAC were issued two Penalty Notices from the EPA for failure to manage dust. The site however does operate a real time system which meets the requirement of this condition.	
GREENHOUSE GAS					
	4.92	Ongoing review includes: <ul style="list-style-type: none"> reviewing equipment purchases with a view to keeping fuel efficiency levels high; maintaining equipment to ensure that diesel and electrically powered equipment are operated efficiently; reviewing mining practices to minimise double handling of materials and ensuring that coal and overburden haulage is undertaken using the most efficient routes; ensuring that lighting and heating are only used when required; increasing the use of alternative fuels where feasible; improving blasting practices to minimise diesel use and emissions; and managing spontaneous combustion to minimise emissions of all gases including greenhouse gas. 	Compliant	Greenhouse gas monitoring and management is reported in the Annual Reviews. Evidence is provided of consideration of energy efficiency in operations. The 2020 Annual Review reports that: <i>BHP is committed to reducing its operational emissions globally and has established a company-wide short-term target to maintain FY2022 emissions at or below FY2017 levels while it continues to grow its business. The company also has set a longer term goal of achieving net-zero operational GHG emissions in the latter half of this century, consistent with the Paris Agreement. In 2019, BHP announced a five-year US\$400M Climate Investment Program to support funding of initiatives to reduce the company's operational emissions and those related to its value chain.</i>	
		Ongoing monitoring and management of greenhouse gas emissions and energy consumption at Mt Arthur Coal Mine would be achieved through HVEC's participation in the Commonwealth Government's NGER system. Under NGER requirements, relevant sources of greenhouse gas emissions and energy consumption must be measured and reported on an annual basis, allowing major sources and trends in emissions/energy consumption to be identified.	Compliant	As reported in the Annual Reviews, MAC focuses on ensuring the operation complies with the regulations under the National Greenhouse and Energy Reporting (NGER) Act 2007. Total gas emissions and energy consumption are reported in the Annual Reviews.	
NOISE AND BLASTING					
		Noise would continue to be managed in accordance with the Mt Arthur Coal EMS, and the Noise Management Plan (including commitments in this EA). These plans would be revised to incorporate the changing requirements of the Modification.	Compliant	Noise is managed in accordance with the latest version of the Noise Management Plan dated May 2013 It is noted that a revised NMP has been prepared and approved by the DPIE on 7 July 2020. The 2020 NMP has not been considered as part of the scope of this audit as MAC have operated in accordance with the 2013 NMP during the audit period.	
	4.10.3	HVEC would review the existing Noise Management Plan for the site to incorporate the following additional practical management measures which may be implemented as required to ensure predictions at private receivers are met: <ul style="list-style-type: none"> procurement of noise attenuated vehicles for critical haul routes; modified alignment of haul routes for day and night scenarios; dumping of overburden in less noise-sensitive locations during night-time, then using daytime overburden placement to increase barrier heights in the vicinity of the night-time dumping locations; and use of bulldozers on overburden emplacements in less noise-sensitive locations during the night-time. 	Compliant	Noise is managed in accordance with the latest version of the Noise Management Plan dated May 2013 It is noted that a revised NMP has been prepared and approved by the DPIE on 7 July 2020. The 2020 NMP has not been considered as part of the scope of this audit as MAC have operated in accordance with the 2013 NMP during the audit period.	
		Where feasible and reasonable, mitigation measures have been introduced into the proposal to reduce potential noise emissions from the Modification. The iterative steps undertaken are described below: <ol style="list-style-type: none"> Preliminary noise modelling of scenarios representative of the maximum noise emissions from the Modification to identify the potential for noise exceedances. Evaluation of various combinations of noise management and mitigation measures to assess their relative effectiveness. Review of the effectiveness of these measures and assessment of their feasibility by HVEC. Adoption by HVEC of management and mitigation measures to appreciably reduce noise emissions associated with the Modification, including: <ul style="list-style-type: none"> procurement of noise-attenuated vehicles for critical haul routes; modified alignment of haul routes for day and night scenarios dumping of overburden in less noise-sensitive locations during night-time, then using daytime dumping to increase barrier heights in the vicinity of the night-time dumping locations; and use of bulldozers on overburden in less noise-sensitive locations during night-time. 	Compliant	Evidence of use of low noise rollers on conveyors and in CHPP. Site interviews indicate that not much equipment is attenuated, or required to be. Based on noise monitoring reports and Annual Reviews there have been no valid exceedances of the noise criteria. Based on inspections, interviews and provided email documentation there is evidence that MAC operate and utilise the real time noise monitoring to adjust operations in response to elevated noise levels and TARP triggers which are received via SMS. Based on site interviews, the mine plan is developed with consideration to design and sequencing of dumps to minimise impacts. There are multiple dump options available to OCEs to adjust operations based on prevailing conditions.	

Reference	Commitment	Requirement	Compliance Status	Evidence Collected	Recommendation
VISAL					
Progressive Rehabilitation	4.11.3	The rehabilitation of mine overburden emplacements would be undertaken on a progressive basis in order to improve integration of the Modification landforms with the surrounding environment and mitigate potential visual impacts. This would include progressive rehabilitation with selected grass, shrub and tree species. The final void would be generally screened from public view by the other mine landforms and surrounding visual bunding and screen planting. Further details are provided in Section 5.	Compliant	Rehabilitation Areas (ha) is ahead of schedule for the audit period according to the Annual Reviews 2018, 2019 & 2020.	
Night-Lighting	4.11.3	Measures that would be employed to mitigate potential impacts from night-lighting would include one or more of the following, where practicable: <ul style="list-style-type: none"> restriction of night-lighting to the minimum required for operations and safety requirements; use of directional lighting techniques to direct light away from sensitive viewpoints; and use of light shields to limit the spill of lighting. Additional mitigation measures at affected residences such as vegetation screening, may be developed in consultation with individual landholders. 	Compliant	a) According to the Annual Review visual and lighting is managed under: <ul style="list-style-type: none"> MAC-ENC-PRO-071 Visual Assessment Procedure; MAC-PRD-PRO-073 Procedure for Lighting Plant Movement and Setup; and MAC-ENC-PRO-077 Light Management Procedure. There have been numerous visual and lighting complaints during the IEA period. Evidence of consultation from March 2019 to September 2019, with the Department satisfied with the response to lighting complaints along Racecourse Road in the email dated 27 September 2019. The IEA had discussions with MAC personnel regarding the process of managing lighting. Every night MAC personnel drive around the site to visible points as part of the 'ÓCE Run'. This also assesses other environmental aspects such as noise. Evidence provided for the complaints process.	
GEOCHEMISTRY					
	4.12.3	Because of the similarity of the findings of Appendix I with previous studies, existing mitigation and management measures would remain for the Modification. In particular: <ul style="list-style-type: none"> the selective mining and burial of overburden and interburden associated with the coal seams (uneconomic coal seams, partings, and roof and floor rock) within the overburden emplacements such that the outer 5 m of the final surfaces comprises only NAF material (consistent with Dames and Moore, 2000c); final emplacement surfaces (top and batter slopes) would be treated with gypsum and/or constructed of material that is known to be non-sodic or to only have low sodicity (consistent with Dames and Moore, 2000c); and because of the predicted elemental enrichment found in some of the overburden, pH, EC, total suspended solids, total alkalinity/acidity, sulphate, arsenic, mercury, antimony, selenium, and molybdenum would be included in the suite of water quality parameters monitored in dams containing runoff from overburden areas. 	Compliant	Section 7.2.1 summarises the results of geochemical investigations and the requirement for the selective handling and burial of coal-associated overburden (and coarse rejects) at depths greater than 5m. The MOP details procedures for soil management and use of appropriate materials and ameliorants. The required water quality monitoring parameters are specified in the Surface Water Monitoring Program.	
		Additional geochemical investigations would be conducted on overburden and interburden in the future if the mining operations expand or move into new areas not covered by the previous or current investigations.	Compliant	Requirements for the characterisation of soils and overburden is detailed in the approved rehabilitation strategy.	
		A detailed geochemical testing programme would be conducted on representative samples of the tailing and coarse rejects as part of future engineering investigations into coal rejects disposal in order to confirm the geochemical characteristics of these materials.	Compliant	The rehabilitation strategy states that capping design for tailings storage facilities will be undertaken with consideration of the characteristics of both the tailings and the capping materials.	
ROAD TRANSPORT ASSESSMENT					
	4.13.3	HVEC would continue to implement the key mitigation measures identified in the Consolidation Project EA, namely fund the upgrade to: <ul style="list-style-type: none"> the intersection of Edderton Road and Denman Road; Thomas Mitchell Drive (in accordance with the terms of a planning agreement with MSC); and the intersection of Thomas Mitchell Drive and the New England Highway. 	Not Triggered	Completed prior to the audit period	
		The existing Road Management Plan would be reviewed and revised to incorporate the Modification.	Not Triggered	Completed prior to the audit period	
RAIL TRANSPORT					
	4.14.3	Given that the additional trains would only be scheduled when capacity exists on the Main Northern Railway, any potential impacts the Modification may have on line have already been considered, with ARTC accounting for increases in contracted volumes from the Mt Arthur Coal Mine in the HVCCS. This expected increase is reflected in the numerous upgrade projects being undertaken on the main line between Muswellbrook and Hexham. These upgrades are outlined in the Table 4-23.	Noted		
HAZARD AND RISK					
	4.15.3	The relocated explosives magazine and facilities would be bunded in accordance with relevant standards and guidelines. Existing site operational practices and protocols would continue to apply.	Not Triggered	As detailed in the MOP forward works program the relocation of the explosives facility to the West of the pit highwall will occur in the annual forward program period.	
EMPLOYMENT, POPULATION AND COMMUNITY INFRASTRUCTURE					
	4.16.3	HVEC would continue to develop and run programmes that help in the recruitment of local labour and would work in partnership with Councils and the local community so that the benefits of the economic activity in the region are maximised and impacts minimised, as far as possible. In this respect, a range of impact mitigation and management measures are proposed including: <ul style="list-style-type: none"> continuation of the Community Development Fund to help benefit a wide range of community needs such as education and training, community capacity building, environment, health, infrastructure projects, arts, sports and recreation; employment of local residents preferentially where they have the required skills and experience and demonstrate a cultural fit with the organisation; and purchase of local non-labour inputs to production preferentially where local producers can be cost and quality competitive. 	Compliant		

Coal Lease 396

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
SCHEDULE OF CONDITIONS OF AUTHORITY COAL 1999				
1. EXTRACTION OF COAL				
	The lease holder shall extract as large a percentage of the coal in the subject area as is practicable consistent with the provisions of the Coal Mines Regulations Act 1982 and the Regulations thereunder and shall comply with any direction given or which may be given in this regard by the Minister.	Not Triggered	No renewal.	
MINING, REHABILITATION, ENVIRONMENTAL MANAGEMENT PROCESS (MREMP)				
2. MINING OPERATIONS PLAN (MOP)				
1	Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:- (a) ongoing mining operations and environmental management; and (b) ongoing monitoring of the project.	Compliant	Evidence of Rehabilitation Management Plan (RMP) signed on 10 December 2019 (Version 1.1). The RMP period is from 31 July 2019 to 30 June 2024. The then DRE confirmed in a letter dated 15 September 2015 that the Mining Operations Plan, developed in accordance with the Department's MOP Guidelines, was acceptable to satisfy the requirements for a Rehabilitation Management Plan under Schedule 3 Condition 44 of the Mt Arthur Coal Modification Project Approval (PA 09_0062 MOD 1).	
2	The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgment.	Compliant	Both documents submitted as per the required MOP and Draft RMP Guidelines.	
3	A Plan must be lodged with the Director-General:- (a) prior to the commencement of operations; (b) subsequently as appropriate prior to the expiry of any current Plan; and (c) in accordance with any direction issued by the Director-General.	Compliant	Evidence of submission of MOP's and RMP's during the IEA period to meet this condition.	
4	The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:- (a) area(s) proposed to be disturbed under the Plan; (b) mining and rehabilitation method(s) to be used and their sequence; (c) areas to be used for disposal of tailings/waste; (d) existing and proposed surface infrastructure; (e) progressive rehabilitation schedules; (f) areas of particular environmental sensitivity; (g) water management systems (including erosion and sediment controls); (h) proposed resource recovery; and (i) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation	Compliant	The current RMP covers the period from 31 July 2019 - 30 June 2024. These documents covers the relevant information of this condition.	
5	The Plan when lodged will be reviewed by the Department of Mineral Resources.	Noted		
6	The Director-General may within two (2) months of the lodgement of a Plan, require modification and relodgement.	Noted		
7	If a requirement in accordance with clause (6) is not issued within two months of the lodgement of a Plan, lease holder may proceed with implementation of the Plan submitted subject to the lodgement of the required security deposit within the specified time.	Noted		
8	During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.	Noted		

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
3. ANNUAL ENVIRONMENTAL MANAGEMENT REPORT (AEMR)				
1	Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.	Compliant	Evidence of Annual Reviews.	
2	The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:- (a) the accepted Mining Operations Plan; (b) development consent requirements and conditions; (c) Environment Protection Authority and Department of Land and Water Conservation licences and approvals; (d) any other statutory environmental requirements; (e) details of any variations to environmental approvals applicable to the lease area. and (f) where relevant, progress towards final rehabilitation objectives.	Compliant	Evidence of Annual Reviews. Covers requirements a - f a) Covered in Section 8.4 of the Annual Review. B) It is generally covered, but there is no reference to the actual conditions. c) Compares criteria within Section 6; d) Generally covered but there is no reference to the actual conditions. e) N/A. f) Section 6.5	Improvement REC 20: Include a cross referencing table in the Annual Review outlining the conditions relevant to the Development Consent and Mining Lease.
3	After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.	Noted		
4	The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies.	Noted	Evidence of responding to actions from the previous Annual Review. Section 5.	
SHAFTS, DRIFTS, ADITS				
14	Operations shall be conducted in such a manner as not to cause any danger to persons or stock and the lease holder shall provide and maintain adequate protection to the satisfaction of the Minister around each shaft or excavation opened up or used by the lease holder.	Not Triggered	No evidence of this being triggered.	
DUMPS				
15	The lease holder shall comply with any direction, given or which may be given by the Inspector regarding the dumping, depositing or removal of material extracted as well as the stabilisation and revegetation of any dumps of coal, minerals, mine residues, tailings or overburden situated on the subject area or the associated colliery holding.	Not Triggered	No evidence of this being triggered.	
16	The lease holder shall comply with any direction given or which may be given by the Minister regarding the spraying of coal dumps on the subject area.	Not Triggered	No evidence of this being triggered.	
DUST				
17	The lease holder shall take such precautions as are necessary to abate any dust nuisance.			
MANAGEMENT AND REHABILITATION OF LANDS (GENERAL)				
18	The lease holder shall not interfere in any way with any fences on or adjacent to the subject area unless with the prior written approval of the owner thereof or the Minister and subject to such conditions as the Minister may stipulate.	Not Triggered	No evidence of this being triggered	
19	The lease holder shall observe any instruction given or which may be given by the Minister with a view to minimising or preventing public inconvenience or damage to public or private property.	Not Triggered	No evidence of this being triggered	
20	If required to do so by the Minister and within such time as may be stipulated by the Minister the lease holder shall carry out to the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent landholdings to determine the effect of operations on any such structures, buildings and pipelines.	Not Triggered	No evidence of this being triggered	
21	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister any lands within the subject area which may have been disturbed by the lease holder.	Not Triggered	No rehabilitation in this lease area.	
22	Upon completion of operations on the surface of the subject area or upon the expiry or sooner determination of this authority or any renewal thereof, the lease holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.	Not Triggered	No rehabilitation in this lease area.	
23	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of, the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the lease holder,	Not Triggered	No rehabilitation in this lease area.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
24	The lease holder shall take all precautions against causing outbreak of fire on the subject area.	Compliant	Bushfire Management Plan.	
25	The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment.	Compliant	No issues determined during the IEA period in this lease.	
BLASTING				
26	The lease holder shall monitor noise and vibration and institute controls, generally in accordance with the recommendations of Australian Standard AS-2187-1993 and ANZEC Guidelines.	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
a	Ground Vibration The lease holder shall design all blasts on the basis that the ground vibration peak particle velocity generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA Licence for the mine, at any dwelling or occupied premises not owned by the lease holder, the holder of an authority under the Mining Act, or not subject to a valid agreement with the lease holder, with respect to the effects of blasting.	Compliant	Evidence of blasting results.	
b	Blast Overpressure The lease holder shall design all blasts on the basis that the blast overpressure noise level generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA Licence for the mine, at any dwelling or occupied premises not owned by the lease holder, the holder of an authority under the Mining Act, or not subject to a valid agreement with the lease holder, with respect to the effects of blasting.	Compliant	Evidence of blasting results.	
TREES (PLANTING AND PROTECTION OF) FLORA AND FAUNA AND ARBOREAL SCREENS				
27	If so directed by the Minister, the lease holder shall ensure that operations are carried out in such manner so as to minimise disturbance to flora and fauna within the subject area.	Not Triggered	No rehabilitation in this lease area.	
29	The lease holder shall maintain an arboreal screen to the satisfaction of the Minister within such parts of the subject area as may be specified by the Minister and shall plant such trees or shrubs as may be required by the Minister to preserve the arboreal screen in a condition satisfactory to the Minister.	Not Triggered	No rehabilitation in this lease area.	
SOIL EROSION				
30	The lease holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the lease holder shall observe and perform any instructions given or which may be given by the Minister with a view to minimising or preventing soil erosion.	Compliant	No specific issues identified in this domain.	
ROADS				
31	The lease holder shall pay to Muswellbrook Council, Department of Land and Water Conservation or the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive of making good any damage caused by operations carried on by or under the authority of the lease holder to any road adjoining or traversing the surface or the excepted surface, as the case may be of the subject area. PROVIDED HOWEVER that the amount to be paid by the lease holder as aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Land and Water Conservation or the Chief Executive, Roads and Traffic Authority as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in settlement of a claim for compensation for the same damage.	Not Triggered	No public roads in this lease.	
32	In the event of operations being conducted on the surface of any road, track or firetrail traversing the subject area or in the event of such operations causing damage to or interference with any such road, track or firetrail the lease holder, at his own expense, shall if directed to do so by the Minister provide to the satisfaction of the Minister an alternate road, track or firetrail in a position as required by the Minister and shall allow free and uninterrupted access along such alternate road, track or firetrail and, if required to do so by the Minister, the lease holder shall upon completion of operations rehabilitate the surface of the original road, track or firetrail to a condition satisfactory to the Minister.	Not Triggered	No public roads in this lease.	
CATCHMENT AREAS				
33 a	Operations shall be carried out in such a way as not to cause any pollution of the Hunter Catchment Area.	Not Triggered	No evidence of this being triggered in this lease area.	
b	If the lease holder is using or about to use any process which in the opinion of the Minister is likely to cause contamination of the waters of the said Catchment Area the lease holder shall refrain from using or cease using as the case may require such process within twenty four (24) hours of the receipt by the lease holder of a notice in writing under the hand of the Minister requiring the lease holder to do so.	Not Triggered	No evidence of this being triggered in this lease area.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
c	The lease holder shall comply with any regulations now in force or hereafter to be in force for the protection from pollution of the said Catchment Area.	Not Triggered	No evidence of this being triggered in this lease area.	
TRANSMISSION LINES, COMMUNICATION LINES AND PIPELINES				
41	The lease holder shall as far as is practicable so conduct operations as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the surface or the excepted surface of the subject area and shall comply with any direction given or which may be given by the Minister in this regard.	Not Triggered	No evidence of this being triggered in this lease area.	
ABORIGINAL PLACE OR RELIC				
43	The lease holder shall not knowingly destroy, deface or damage any Aboriginal place or relic within the subject area except in accordance with an authority issued under the National Parks and Wildlife Act, 1974, and shall take every precaution in drilling, excavating or disturbing the land against any such destruction, defacement or damage.	Compliant	Activities managed under the Aboriginal Heritage Management Plan.	
LABOUR/EXPENDITURE				
44	The lease holder shall during each year of the term of the authority: (a) ensure that at least two workers are efficiently employed on the subject area; or (b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than thirty-five thousand dollars (\$35,000). The Minister may, at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure or labour required.	Compliant	MAC operations are well above this criteria.	
ADDITIONAL INFORMATION				
45	The lease holder shall if directed by the Minister and within such time as the Minister may stipulate furnish to the Minister: (a) information regarding the ownership of the land within the subject area; (b) information regarding the ownership of the coal within the subject area prior to 1st January, 1982; (c) an indemnity in a form approved by the Minister indemnifying the Crown and the Minister against any wrong payment effected as a result of incorrect information furnished by the lease holder; (d) information regarding the financial viability of the lease holder and operations within and associated with the subject area; and (e) information regarding shareholdings in the lease holder.	Not Triggered	No evidence of this being triggered in this lease area.	
SERVICE OF NOTICES				
46	Within a period of three (3) months from the date of this authority or a period of three (3) months from the date of service of the notice of renewal, or within such further time as the Director General may allow, the lease holder shall serve on each landholder within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area. If there are ten (10) or more landholders affected the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.	Not Triggered	No evidence of this being triggered in this lease area.	
INSPECTORS				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
47	<p>(a) Where an Inspector under the Mining Act 1992 is of the opinion that any condition of this authority relating to operations within the subject area, or any provision of the Mining Act, 1992, relating to operations within the subject area, are not being complied with by the lease holder, the Inspector may serve on the lease holder a notice stating that and give particulars of the reason why, and may in such notice direct the lease holder:</p> <p>(i) to cease operations within the subject area in contravention of that condition or Act; and</p> <p>(ii) to carry out within the specified time works necessary to rectify or remedy the situation.</p> <p>(b) The lease holder shall comply with the directions contained in any notice served pursuant to sub paragraph (a) of this condition. The Director General may confirm, vary or revoke any such direction.</p> <p>(c) A notice referred to in his condition may be served on the Colliery Manager.</p>	Not Triggered	No evidence of this being triggered in this lease area.	
INDEMNITIES				
48	The lease holder shall indemnify and keep indemnified the Crown from and against all actions suits and claims and demands of whatsoever nature and all costs charges and expense which may be brought against the lease holder or which the lease holder may incur respect of any accident or injury to any person or property which may arise out of the construction maintenance or working of any workings now existing or to be made by the lease holder within the boundaries of the subject area or in connection with any of the operations notwithstanding that all other conditions of this authority shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do hereunder.	Noted		
49	The lease holder shall save harmless the Crown from payment of compensation and from and against all claims, actions, suits or demands whatsoever in the event of any damage resulting from mining operations under or near the subject area.	Noted		
PROSPECTING (GENERAL)				
50	<p>(a) Where the lease holder desires to commence prospecting operations in the subject area the lease holder shall notify the Director General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations.</p> <p>(b) Where the lease holder notifies the Director General pursuant to sub paragraph - (a.) of this condition the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.</p>	Not Triggered	Outside of IEA period.	
SECURITY DEPOSIT				
51	<p>The joint security of \$4,030,400.00 lodged with the Minister by the Lease holder for the purpose of ensuring the fulfilment by the leaseholder of its obligations under Consolidated Coal Lease 744, (Act 1973), includes the obligations of this lease. In the event that the lease holder fails to fulfill any of the lease holder's obligations under these authorities the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purposes of the clause a lease holder shall be deemed to have failed to fulfill the lease holder's obligations under these authorities, if the lease holder fails to comply with any condition or provision of these authorities, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision of these authorities or of any provision of the Act or regulations made thereunder.</p> <p>(b) The lease holder must provide the security required by sub-clause (a) hereof in one of the following forms:-</p> <p>(i) cash, or</p> <p>(ii) a security certificate in such form and given by such surety as may from time to time be approved by the Minister.</p> <p>(c) The Minister may at any time, vary the amount of security required in accordance with this condition.</p>	Compliant	<p>Evidence of Rehabilitation bond. Most recent 17 September 2019.</p> <p>Evidence of breakdown by leases.</p>	
ROYALTY AT ADDITIONAL RATE				
54	The lease holder shall during the term of this authority pay to the Minister royalty at the additional rate as prescribed by the Regulations for coal recovered by open cut mining methods from the area.	Compliant	Evidence of three separate Annual Royalties for mining leases covering financial year periods. Documents are undated. Evidence from 'Revenue NSW'. Meets requirements of this condition.	
SPONTANEOUS COMBUSTION MANAGEMENT PLAN				
55	The lease holder shall submit a Spontaneous Combustion Management Plan. The implementation of this plan will be to the satisfaction of the Department of Mineral Resources.	Compliant	Activities managed under the Spontaneous Combustion Management Plan.	

Coal Lease 744

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
MINING LEASE CONDITIONS 2007				
NOTICE TO LANDHOLDERS				
1	<p>Within a period of three months from the date of renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.</p> <p>If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.</p>	Not Triggered	No renewal.	
Environmental Harm				
2	The proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the development.	Not Triggered	No evidence of environmental harm based on the information provided.	
Mining Operations Plan				
3 (a)	Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director- General of the Department of Primary industries.	Compliant	<p>Evidence of Rehabilitation Management Plan (RMP) signed on 10 December 2019 (Version 1.1). The RMP period is from 31 July 2019 to 30 June 2024.</p> <p>The then DRE confirmed in a letter dated 15 September 2015 that the Mining Operations Plan, developed in accordance with the Department's MOP Guidelines, was acceptable to satisfy the requirements for a Rehabilitation Management Plan under Schedule 3 Condition 44 of the Mt Arthur Coal Modification Project Approval (PA 09_0062 MOD 1).</p>	
3 (b)	<p>The MOP must:</p> <ul style="list-style-type: none"> • identify areas that will be disturbed by mining operations; • detail the staging of specific mining operations; • identify how the mine will be managed to allow mine closure; • identify how mining operations will be carried out on site in order to prevent and or minimise harm to the environment; • reflect the conditions of approval under: <ul style="list-style-type: none"> the Environmental Planning and Assessment Act 1979 the Protection of the Environment Operations Act 1997 - and any other approvals relevant to the development including the conditions-of this lease; and • have regard to any relevant guidelines adopted by the Director-General. 	Compliant	RMP and MOP's meet this requirement.	
3 (c)	The titleholder may apply to the Director-General to amend an approved MOP at anytime.	Compliant	RMP and MOP's meet this requirement.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
3 (d)	It is not a breach of this condition if: i)the operations constituting the breach were necessary to comply with a lawful order or direction given under the Mining Act 1992, the Environmental Planning and Assessment Act 1979, Protection of the Environment Operations Act 1997 or the Occupational Health and Safety Act 2000; and ii)the Director-General had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out	Compliant	RMP and MOP's meet this requirement.	
3 (e)	A MOP ceases to have effect 7 years after date of approval or other such period as identified by the Director-General. An approved amendment to the MOP under condition 5 does not constitute an approval for the purpose of this paragraph unless otherwise identified by the Director-General.	Compliant	RMP and MOP's meet this requirement.	
Environment Management Reporting				
4	The lease holder must lodge Environmental Management Reports (EMR) with The Director-General annually or at dates otherwise directed by the Director-General.	Compliant	As per the Annual Reviews. Meets requirement of these conditions.	
5	The EMR must - report against compliance with the MOP; - report on progress in respect of rehabilitation completion criteria; report on the extent of compliance with regulatory requirements; and - have regard to any relevant guidelines adopted by the Director-General;	Compliant	As per the Annual Reviews. Meets requirement of these conditions.	
6	Additional environmental reports may be required on specific surface disturbing operations or environmental incidents from time to time as directed in writing by the Director-General and must be lodged as instructed.	Compliant	Evidence of additional incident reports.	
Rehabilitation				
7	Disturbed land must be rehabilitated to a sustainable/agreed end land use to the satisfaction of the Director-General.	Compliant	No current rehabilitation in this lease.	
Subsidence Management				
8 (a)	The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.	Not Triggered	Not required for open cut operations.	
8 (b)	Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or miniwalls, associated first workings (gate roads, installation roads and associated main headings, etc.), and pillar extractions, and are otherwise defined by the Applications for Subsidence Management Approvals guidelines (EDG17)	Not Triggered		
8 (c)	The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, an approval under the Coal Mine Health and Safety Act 2002, or the document New Subsidence Management Plan Approval Process - Transitional Provisions (EDP09).	Not Triggered		
8 (d)	Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.	Not Triggered		
8 (e)	Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence - Policy.	Not Triggered		
Working Requirement				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
9	<p>The lease holder must:</p> <p>(a) ensure that at least 23 competent people are efficiently employed on the lease area on each weekday except Sunday or any weekday that is a public holiday,</p> <p>OR</p> <p>(b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$402,500 per annum whilst the lease is in force.</p> <p>The Minister may at any time or times, by instrument in writing served on the lease holder, increase or decrease the expenditure required or the number of people to be employed.</p>	Compliant	Far more than these number of workers.	
Control of Operations				
10 (a)	<p>If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:-</p> <p>(i) cease working the lease; Or</p> <p>(ii) Cease that part of the operation not complying with the Act or conditions; until in the opinion of the Environmental Officer the situation is rectified.</p>	Not Triggered	Based on the information provided this specific condition has not been triggered. Evidence of consultation with government agencies.	
10 (b)	The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.	Not Triggered		
10 (c)	A direction referred to in this condition may be served on the Mine Manager.	Not Triggered		
Reports				
11	<p>The lease holder must provide an exploration report, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following:</p> <p>(a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;</p> <p>(b) Details of expenditure incurred in conducting that exploration;</p> <p>(c) A summary of all geological findings acquired through mining or development evaluation activities;</p> <p>(d) Particulars of exploration proposed to be conducted in the next twelve months period;</p> <p>(e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.</p>	Compliant	Evidence of exploration reports between 2018 and 2020. The DPIE sent a letter dated 16 January 2019 outlining that leases CCL 744, CL 396, MPL 263, ML 1358, ML 1487, ML 1548, ML 1593, ML 1655, ML 1739, ML 1757 did not need to be submitted until 26 February 2019. Therefore MAC met these timing requirements.	
Licence to Use Reports				
12	<p>(a) The lease holder grants to the Minister, by way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright.</p> <p>(b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.</p>	Noted		
Confidentiality				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
13 (a)	AU-exploration reports submitted in accordance with the conditions of this lease will be kept confidential while the lease is in force, except in cases where: (i) the lease holder has agreed that- specified reports may be made non- confidential. (ii) reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.	Noted		
13 (b)	Confidentiality will be continued beyond the termination of a lease ""{here an application for a flow-on title was lodged during the currency. of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated.	Noted		
13 (c)	The Director-General may extend the period of confidentiality.	Noted		
Terms of the non-exclusive licence				
14	The terms of the non-exclusive copyright licence granted under condition 12 are:	Noted		
14 (a)	the Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.	Noted		
14 (b)	the Minister and any sub-licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.	Noted		
14 (c)	the lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.	Noted		
14 (d)	there is no royalty payable by the Minister for the licence.	Noted		
14 (e)	if the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder, that licence is revocable on the giving of a period of not less than three month's notice.	Noted		
Blasting				
15 (a)	Ground Vibration The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment and Climate Change.	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
15 (b)	Blast Overpressure The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the- case may be, unless determined otherwise by the Department of Environment and Climate Change.	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
Safety				
16	Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned .shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.	Compliant	No evidence of non - compliances.	
Exploratory Drilling				
17 (1)	At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Water and Energy regional hydrogeologist of the intention to drill exploratory drill holes together with information in the location of the proposed holes.	Not Triggered	Based on exploration reports and figures within these report, there was no drilling in this lease.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
17 (2)	<p>If the lease holder drills exploratory drill holes he must satisfy the Director-General that:-</p> <p>(a) all cored holes are accurately surveyed and permanently marked in accordance with departmental guidelines so that their location can be easily established;</p> <p>b) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;</p> <p>c) all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters;</p> <p>(d) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;</p> <p>(e) if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.</p> <p>(f) once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director-General.</p> <p>(g) once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.</p>	Not Triggered	Based on exploration reports and figures within these report, there was no drilling in this lease.	
Prevention of Soil Erosion and Pollution				
18	Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.	Compliant	No issues identified within this domain.	
Transmission lines, Communication lines and Pipelines				
19	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions he may stipulate.	Not Triggered	Based on information provided there was no movement of externally owned transmission lines, communications lines or pipeline	
Fences, Gates				
20	<p>(a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate.</p> <p>(b) Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.</p>	Compliant	No evidence of non - compliances.	
Roads and Tracks				
21 (a)	Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate.	Compliant	No evidence of non - compliances.	
21 (b)	(b)The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.	Compliant	No evidence of non - compliances.	
22	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, top soiled and revegetated as soon as possible after they are no longer required for mining operations.	Compliant	No evidence of non - compliances.	
Trees and Timber				
23 (a)	The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or if such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden.	Compliant	No evidence of non - compliances.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
23 (b)	The lease holder must not cut, destroy, ringbark or remove any timber or other vegetative cover on the lease area except such as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provisions of the Native Vegetation Act 2003.	Compliant	No evidence of non - compliances.	
23 (c)	The lease holder must obtain all necessary approvals or licences before using timber from any Crown land within the lease area.	Compliant	No evidence of non - compliances.	
Resource Recovery				
25 (a)	Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to recover such minerals.	Not Triggered	No evidence of this being triggered.	
25 (b)	The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.	Not Triggered	No evidence of this being triggered.	
25 (c)	The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.	Not Triggered	No evidence of this being triggered.	
25 (d)	The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General has incorporated the views of the lease holder.	Not Triggered	No evidence of this being triggered.	
25 (e)	The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992.	Not Triggered	No evidence of this being triggered.	
25 (f)	After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.	Not Triggered	No evidence of this being triggered.	
Indemnity				
26	The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.	Noted		
Single Security (extended)				
28 (a)	The single security given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under Coal Lease 396 (Act 1973) and Mining Purposes Lease 263 (Act 1973) is extended to apply to this lease.	Compliant	Evidence of Rehabilitation bond provided.	
28 (b)	If the lease holder fails to fulfil any one or more of the obligations under this lease, then the security held may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of the lease if the lease holder fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder.	Noted		
Prescribed Dam				
29 (a)	Notwithstanding any Mining Operations Plan, the lease holder must not mine within any Part of the lease area which is within the notification area of the Bays water 2 Main Dam without the prior written approval of the Minister and subject to any conditions he may stipulate.	Not Triggered	Evidence of disturbance footprint identifies no issues occurred.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
29 (b)	<p>Where the lease holder desires to mine within the notification area he must:</p> <p>(i) at least twelve (12) months before mining is to commence or such lesser time as the Minister may permit, notify the Minister of the desire to do so. A plan of the mining system to be implemented must accompany the notice; and</p> <p>(ii) provide such information as the Minister may direct.</p>	Not Triggered	Evidence of disturbance footprint identifies no issues occurred.	
29 (c)	<p>The Minister must not, except in the circumstances set out in sub-paragraph (ii), grant approval unless sub-paragraph (i) of this paragraph has been complied with.</p> <p>(i) This sub-paragraph is complied with if:</p> <p>(a) the Dams Safety Committee as constituted by Section 7 of the Dams Safety Act 1978 and the owner of the dam have been notified in writing of the desire to mine referred to in paragraph (B).</p> <p>(b) the notifications referred to in clause (a) are accompanied by a description or plan of the area to be mined.</p> <p>(c) the Director-General has complied with any reasonable request made by the Dams Safety Committee or the owner of the dam for further information in connection with the mining proposal.</p> <p>(d) the Dams Safety Committee has made its recommendations concerning the mining proposal or has informed the Minister in writing that it does not propose to make any such recommendations; and</p> <p>(e) where the Dams Safety Committee has made recommendations the approval is in terms that are:</p> <p>(i) in accordance with those recommendations; or</p> <p>(ii) where the Minister does not accept those recommendations or any of them - in accordance with a determination under sub-paragraph (ii) of this paragraph.</p> <p>(ii) Where the Minister does not accept the recommendations of the Dams Safety Committee or where the Dams Safety Committee has failed to make any recommendations and has not informed the Minister in writing that it does not propose to make any recommendations, the approval shall be in terms that are, in relation to matters dealing with the safety of the dam:</p> <p>(a) as determined by agreement between the Minister and the Minister administering the Dams Safety Act 1978; or</p> <p>(b) in the event of failure to reach such agreement - as determined by the Premier.</p>	Not Triggered	Evidence of disturbance footprint identifies no issues occurred.	
29 (d)	<p>The Minister, on notice from the Dams Safety Committee, may at any time or times:</p> <p>(i) cancel any approval given where a notice pursuant to Section 18 of the Dams Safety Act 1978 is given.</p> <p>(ii) suspend for a period of time, alter, omit from or add to any approval given or conditions imposed.</p>	Not Triggered	Evidence of disturbance footprint identifies no issues occurred.	
SUSPENSION OF MINING OPERATIONS				
30	The holder of a consolidated mining lease may not suspend mining operations in the mining area other than in accordance with the consent of the Minister.	Not Triggered		
SPECIAL CONDITIONS				
31	The registered holder shall not work or cause to be worked any seam of coal within the subject area without leaving, if the Minister by order given in writing to the registered holder so directs, a barrier of such width or a protective pillar or pillars of such size or sizes as is specified in the order, against any surface improvements or any feature whether natural or artificial.	Not Triggered		
32	The registered holder shall permit the free and uninterrupted passage of stock through that part of the lease area covered by a Travelling Stock Reserve and must conduct operations in a manner that does not cause danger to travelling stock.	Not Triggered		

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
33	The leases holder shall be limited to the following purposes and conditions within the specified areas described on the plan annexed hereto and marked "B":	Not Triggered		

Mining Lease 1487

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
SCHEDULE OF CONDITIONS OF AUTHORITY (COAL)				
EXTRACTION OF COAL				
1	The lease holder shall extract as large a percentage of the coal in the subject area as is practicable consistent with the provisions of the Coal Mines Regulations Act 1982 and the Regulations thereunder and shall comply with any direction given or which may be given in this regard by the Minister.	Compliant	Extraction within this lease.	
MINING, REHABILITATION, ENVIRONMENTAL MANAGEMENT PROCESS (MREMP)				
MINING OPERATIONS PLAN (MOP)				
2 (1)	Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:- (a) ongoing mining operations and environmental management; and (b) ongoing monitoring of the project.	Compliant	Activities generally in accordance with the MOP.	
2 (2)	The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgment.	Compliant	Activities generally in accordance with the MOP.	
2 (3)	A Plan must be lodged with the Director-General:- (a) prior to the commencement of operations; (b) subsequently as appropriate prior to the expiry of any current Plan; and (c) in accordance with any direction issued by the Director-General.	Compliant	Activities generally in accordance with the MOP.	
2 (4)	The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:- (a) area(s) proposed to be disturbed under the Plan; (b) mining and rehabilitation method(s) to be used and their sequence; (c) areas to be used for disposal of tailings/waste; (d) existing and proposed surface infrastructure; (e) progressive rehabilitation schedules; (f) areas of particular environmental sensitivity; (g) water management systems (including erosion and sediment controls); (h) proposed resource recovery; and (i) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation	Compliant	Activities generally in accordance with the MOP.	
2 (5)	The Plan when lodged will be reviewed by the Department of Mineral Resources.	Compliant	Activities generally in accordance with the MOP.	
2 (6)	The Director-General may within two (2) months of the lodgement of a Plan, require modification and relodgement.	Compliant	Activities generally in accordance with the MOP.	
2 (7)	If a requirement in accordance with clause (6) is not issued within two months of the lodgement of a Plan, lease holder may proceed with implementation of the Plan submitted subject to the lodgement of the required security deposit within the specified time.	Compliant	Activities generally in accordance with the MOP.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
2 (8)	During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.	Compliant	Activities generally in accordance with the MOP.	
ANNUAL ENVIRONMENTAL MANAGEMENT REPORT (AEMR)				
3 (1)	Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.	Compliant	Evidence of Annual Reviews.	
3 (2)	The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:- (a) the accepted Mining Operations Plan; (b) development consent requirements and conditions; (c) Environment Protection Authority and Department of Land and Water Conservation licences and approvals; (d) any other statutory environmental requirements; (e) details of any variations to environmental approvals applicable to the lease area. and (f) where relevant, progress towards final rehabilitation objectives.	Compliant	Evidence of Annual Reviews.	
3 (3)	After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.	Compliant	Evidence of Annual Reviews.	
3 (4)	The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies.	Compliant	Evidence of Annual Reviews.	
SHAFTS, DRIFTS, ADITS				
14	Operations shall be conducted in such a manner as not to cause any danger to persons or stock and the lease holder shall provide and maintain adequate protection to the satisfaction of the Minister around each shaft or excavation opened up or used by the lease holder.	Compliant	Based on the information provided the site has been compliant.	
DUMPS				
15	The lease holder shall comply with any direction, given or which may be given by the Inspector regarding the dumping, depositing or removal of material extracted as well as the stabilisation and revegetation of any dumps of coal, minerals, mine residues, tailings or overburden situated on the subject area or the associated colliery holding.	Not Triggered	Based on the information provided this was not triggered.	
16	The lease holder shall comply with any direction given or which may be given by the Minister regarding the spraying of coal dumps on the subject area.	Not Triggered	Based on the information provided this was not triggered.	
DUST				
17	The lease holder shall take such precautions as are necessary to abate any dust nuisance.	TBC		
MANAGEMENT AND REHABILITATION OF LANDS (GENERAL)				
18	The lease holder shall not interfere in any way with any fences on or adjacent to the subject area unless with the prior written approval of the owner thereof or the Minister and subject to such conditions as the Minister may stipulate.	Compliant	Based on the information provided the site has been compliant. Evidence of inspections.	
19	The lease holder shall observe any instruction given or which may be given by the Minister with a view to minimising or preventing public inconvenience or damage to public or private property.	Compliant	Based on the information provided the site has been compliant. Evidence of inspections.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
20	If required to do so by the Minister and within such time as may be stipulated by the Minister the lease holder shall carry out to the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent landholdings to determine the effect of operations on any such structures, buildings and pipelines.	Compliant	Based on the information provided the site has been compliant. Evidence of inspections.	
21	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister any lands within the subject area which may have been disturbed by the lease holder.	Compliant	There was some general directions about improving rehabilitation in the Visual Dump 1 area with a letter from DPIE - RR dated 29 June 2018. Additional information was outlined in the RMP and Annual Review. It is understood that additional re-working is to be undertaken in this area. Appears to be doing additional work in this lease which makes it compliant with this condition. Works still ongoing. See Rehabilitation Specialist Report for specific recommendations based on photo areas. This includes VD1, CD1 and VD5 areas.	
22	Upon completion of operations on the surface of the subject area or upon the expiry or sooner determination of this authority or any renewal thereof, the lease holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.	Not Triggered	Operations ongoing.	
23	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the lease holder.	Compliant	There was some general directions about improving rehabilitation in the Visual Dump 1 area with a letter from DPIE - RR dated 29 June 2018. Additional information was outlined in the RMP and Annual Review. It is understood that additional re-working is to be undertaken in this area. Appears to be doing additional work in this lease which makes it compliant with this condition. Works still ongoing. See Rehabilitation Specialist Report for specific recommendations based on photo areas. This includes VD1, CD1 and VD5 areas.	
24	The lease holder shall take all precautions against causing outbreak of fire on the subject area.	Compliant	Bushfire Management Plan	
25	The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse, groundwater or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse, groundwater, or catchment area or any undue interference to fish or their environment.	Compliant	Based on the information provided there has been a discharge of a pipeline within this lease. Evidence of pipeline leakage with details provided on 23 January 2020, with details provided in Section 11 of the Annual Review. The IEA Team understands there will be a Pollution Reduction Program in place in consultation with the EPA. The IEA has identified there were and still are numerous pipelines on site that will discharge offsite if a leak occurs. However this condition refers to satisfaction of the minister, and no evidence has been provided of any fines or prosecutions from the DPIE-RR regarding water discharge.	REC As per S3C30: Implement the Pollution Reduction Program once it is final from the EPA.
BLASTING				
26	The lease holder shall monitor noise and vibration and institute controls, generally in accordance with the recommendations of Australian Standard AS-2187-1993 and ANZEC Guidelines.	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
26 (a)	Ground Vibration The lease holder shall design all blasts on the basis that the ground vibration peak particle velocity generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA Licence for the mine, at any dwelling or occupied premises not owned by the lease holder, the holder of an authority under the Mining Act, or not subject to a valid agreement with the lease holder, with respect to the effects of blasting.	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
26 (b)	Blast Overpressure The lease holder shall design all blasts on the basis that the blast overpressure noise level generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA Licence for the mine, at any dwelling or occupied premises not owned by the lease holder, the holder of an authority under the Mining Act, or not subject to a valid agreement with the lease holder, with respect to the effects of blasting.	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
TREES (PLANTING AND PROTECTION OF) FLORA AND FAUNA AND ARBOREAL SCREENS				
27	If so directed by the Minister, the lease holder shall ensure that operations are carried out in such manner so as to minimise disturbance to flora and fauna within the subject area.	TBC		
29	The lease holder shall maintain an arboreal screen to the satisfaction of the Minister within such parts of the subject area as may be specified by the Minister and shall plant such trees or shrubs as may be required by the Minister to preserve the arboreal screen in a condition satisfactory to the Minister.	Compliant	Evidence of screen including maintenance and monitoring reports.	
SOIL EROSION				
30	The lease holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the lease holder shall observe and perform any instructions given or which may be given by the Minister with a view to minimising or preventing soil erosion.	Compliant	There is soil erosion, but additional works are being completed.	
ROADS				
31	The lease holder shall pay to Muswellbrook Council, Department of Land and Water Conservation or the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive of making good any damage caused by operations carried on by or under the authority of the lease holder to any road adjoining or traversing the surface or the excepted surface, as the case may be of the subject area. PROVIDED HOWEVER that the amount to be paid by the lease holder as aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Land and Water Conservation or the Chief Executive, Roads and Traffic Authority as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in settlement of a claim for compensation for the same damage.	Compliant	Evidence of continued road maintenance contributions.	
32	In the event of operations being conducted on the surface of any road, track or firetrail traversing the subject area or in the event of such operations causing damage to or interference with any such road, track or firetrail the lease holder, at his own expense, shall if directed to do so by the Minister provide to the satisfaction of the Minister an alternate road, track or firetrail in a position as required by the Minister and shall allow free and uninterrupted access along such alternate road, track or firetrail and, if required to do so by the Minister, the lease holder shall upon completion of operations rehabilitate the surface of the original road, track or firetrail to a condition satisfactory to the Minister.	Not Triggered		
CATCHMENT AREAS				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
33	<p>(a) Operations shall be carried out in such a way as not to cause any pollution of the Hunter River Catchment Area.</p> <p>(b) If the lease holder is using or about to use any process which in the opinion of the Minister is likely to cause contamination of the waters of the said Catchment Area the lease holder shall refrain from using or cease using as the case may require such process within twenty four (24) hours of the receipt by the lease holder of a notice in writing under the hand of the Minister requiring the lease holder to do so.</p> <p>(c) The lease holder shall comply with any regulations now in force or hereafter to be in force for the protection from pollution of the said Catchment Area.</p>	Not Triggered	Condition 25 refers to the pipeline discharge. However there is no evidence of any pollution of the Hunter River Catchment. It should be noted the majority of water was from the Hunter River as part of a WAL.	
TRANSMISSION LINES, COMMUNICATION LINES AND PIPELINES				
41	The lease holder shall as far as is practicable so conduct operations as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the surface or the excepted surface of the subject area and shall comply with any direction given or which may be given by the Minister in this regard.	Not Triggered	Based on information provided there was no movement of externally owned transmission lines, communications lines or pipeline	
ABORIGINAL PLACE OR RELIC				
43	The lease holder shall not knowingly destroy, deface or damage any aboriginal place or relic within the subject area except in accordance with an authority issued under the National Parks and Wildlife Act, 1974, and shall take every precaution in drilling, excavating or disturbing the land against any such destruction, defacement or damage.	Compliant	Based on information provided this has not occurred.	
LABOUR/EXPENDITURE				
44	<p>The lease holder shall during each year of the term of the authority:</p> <p>(a) ensure that at least 141 workers are efficiently employed on the subject area; or</p> <p>(b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than \$2,467,500.00.</p> <p>The Minister may, at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure or labour required.</p>	Compliant	Greater than this number are employed.	
ADDITIONAL INFORMATION				
45	<p>The lease holder shall if directed by the Minister and within such time as the Minister may stipulate furnish to the Minister:</p> <p>(a) information regarding the ownership of the land within the subject area;</p> <p>(b) information regarding the ownership of the coal within the subject area prior to 1st January, 1982;</p> <p>(c) an indemnity in a form approved by the Minister indemnifying the Crown and the Minister against any wrong payment effected as a result of incorrect information furnished by the lease holder;</p> <p>(d) information regarding the financial viability of the lease holder and operations within and associated with the subject area; and</p> <p>(e) information regarding shareholdings in the lease holder.</p>	Not Triggered	No evidence of this being triggered.	
SERVICE OF NOTICES				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
46	<p>Within a period of three (3) months from the date of this authority or a period of three (3) months from the date of service of the notice of renewal, or within such further time as the Director General may allow, the lease holder shall serve on each landholder within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area.</p> <p>If there are ten (10) or more landholders affected the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.</p>	Not Triggered	Not renewed in IEA period.	
INSPECTORS				
47	<p>(a) Where an Inspector under the Mining Act 1992 is of the opinion that any condition of this authority relating to operations within the subject area, or any provision of the Mining Act, 1992, relating to operations within the subject area, are not being complied with by the lease holder, the Inspector may serve on the lease holder a notice stating that and give particulars of the reason why, and may in such notice direct the lease holder:</p> <p>(i) to cease operations within the subject area in contravention of that condition or Act; and</p> <p>(ii) to carry out within the specified time works necessary to rectify or remedy the situation.</p> <p>(b) The lease holder shall comply with the directions contained in any notice served pursuant to sub paragraph (a) of this condition. The Director General may confirm, vary or revoke any such direction.</p> <p>(c) A notice referred to in his condition may be served on the Colliery Manager.</p>	Not Triggered	No evidence provided on this being triggered.	
INDEMNITIES				
48	The lease holder shall indemnify and keep indemnified the Crown from and against all actions suits and claims and demands of whatsoever nature and all costs charges and expense which may be brought against the lease holder or which the lease holder may incur respect of any accident or injury to any person or property which may arise out of the construction maintenance or working of any workings now existing or to be made by the lease holder within the boundaries of the subject area or in connection with any of the operations notwithstanding that all other conditions of this authority shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do hereunder.	Noted		
49	The lease holder shall save harmless the Crown from payment of compensation and from and against all claims, actions, suits or demands whatsoever in the event of any damage resulting from mining operations under or near the subject area.	Noted		
PROSPECTING (GENERAL)				
50	<p>(a) Where the lease holder desires to commence prospecting operations in the subject area the lease holder shall notify the Director General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations.</p> <p>(b) Where the lease holder notifies the Director General pursuant to sub paragraph (a) of this condition the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.</p>	Not Triggered		
SECURITY DEPOSIT				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
51	<p>(a) The lease holder shall, upon request by the Director General, lodge with the Minister the sum of \$50,000 (Fifty thousand dollars), as security for the fulfillment of the obligations of the lease holder under this authority. In the event that the lease holder fails to fulfill any of the lease holder's obligations under this authority the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purposes of the clause a lease holder shall be deemed to have failed to fulfill the lease holder's obligations under this authority, if the lease holder fails to comply with any condition or provision of this authority, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision of this authority or of any provision of the Act or regulations made thereunder.</p> <p>(b) The lease holder must provide the security required by sub-clause (a) hereof in one of the following forms:-</p> <p>(i) cash, or</p> <p>(ii) a security certificate in such form and given by such surety as may from time to time be approved by the Minister.</p> <p>(a) The Minister may at may time after the commencement of this authority or any renewal hereof, vary the amount of security required in accordance with this condition.</p>	Compliant	<p>Evidence of Rehabilitation bond. Most recent 17 September 2019.</p> <p>Evidence of breakdown by leases.</p>	
ROYALTY AT ADDITIONAL RATE				
54	The lease holder shall during the term of this authority pay to the Minister royalty at the additional rate as prescribed by the Regulations for coal recovered by open cut mining methods from the area.	Compliant	Evidence of three separate Annual Royalties for mining leases covering financial year periods. Documents are undated. Evidence from 'Revenue NSW'. Meets requirements of this condition.	
ADDITIONAL CONDITIONS				
55	The lease holder will supply coal to Macquarie Generation in accordance with Macquarie Generation Contract No 41, or any mutually agreed variations to that contract.	Compliant	This did occur during the period. The conveyor stopped running in late 2019. The conveyor was decommissioned in early 2020.	
56	Prior to commencement of mining operations, the lease holder shall prepare a Spontaneous Combustion Management Plan to the satisfaction of the Director- General.	Compliant	Evidence of this management plan.	
57	As required in the tender document issued in March 1977, the lease holder is required to pay a grant fee of \$5,000,000.00 (Five million dollars) upon the grant of a mining lease. This fee is to be paid within 28 days of the granting of the lease.	Not Triggered	Outside the period.	

Mining Lease 1358

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
SCHEDULE OF CONDITIONS				
METHODS OF OPERATION				
1	The lease holder shall extract as large a percentage of the coal in the subject area as is possible consistent with the provisions of the Coal Mines Regulation Act 1982 and the Regulations thereunder and shall comply with any direction given or which may be given in this regard by the Minister.	Compliant	Outlined in the RMP/MOP.	
2	(a) The lease holder shall not commence or carry out any underground mining operations within the subject area unless with the consent of the Minister first had and obtained and subject to such conditions, as the Minister may impose. (b) Where the lease holder intends to carry out underground mining operations within the subject area the lease holder shall furnish to the Minister a plan showing the proposed workings in the section of land to be so mined together with such other details as the Minister may require.	Compliant	No underground activities.	
3	(a) The lease holder shall not carry out open cut or surface mining operations, or the removal of overburden or highwall mining, within the subject area or within the lands overlying the subject area unless with consent of the Minister and subject to such conditions as the Minister may impose. (b) Where the lease holder intends to carry out open cut workings, surface mining operations or the removal of overburden or highwall mining within the subject area or within the lands overlying the subject area the lease holder shall apply for approval to carry out such operations in accordance with Instructions for Open Cut Application or Instructions for Highwall Mining Applications provided by the Director-General.	Compliant	General condition covered by RMP/MOP.	
DISPOSAL OF COAL				
4	Where any coal mined from within the subject area is not immediately saleable, the lease holder shall, unless otherwise approved by the Minister, store, for future disposal by the lease holder, any such coal in such a manner and location as the Minister may approve and subject to such conditions as the Minister may impose.	Not Triggered		
DUMPS AND COAL PREPARATION PLANT				
6	The lease holder shall comply with any direction, given or which may be given by the Inspector regarding the stabilisation and revegetation of any dumps of coal, minerals, mine residues, tailings or overburden situated on the subject area.	Compliant	Saddlers Creek rehabilitation has been included within this area. Noted consultation with the Resources Regulator in this area. Works are still ongoing and evidence proposed activities within this area.	
7	The lease holder shall comply with any direction given or which may be given by the Minister regarding the spraying of coal dumps on the subject area.	Not Triggered		
8	The lease holder shall advise the Minister prior to the erection or operation of any coal ' preparation plant or any other plant for the purpose of the beneficiation of coal on the subject area. Such plant is to be as generally described and located in the project Environmental Impact Statement as varied from time to time with the consent of the Minister.	Not Triggered		
DAMS AND ESCAPE OF WATER				
9	Settling dams or other dams constructed or to be constructed on the subject area shall be constructed, maintained and sealed to the satisfaction of the Inspector.			
10	The lease holder shall provide and maintain efficient means to prevent contaminated waters discharging or escaping from the subject area onto surrounding areas.			
DAMS AND ESCAPE OF WATER				
11	The lease holder shall take such precautions as are necessary to abate any dust nuisance.			
12	The lease holder shall carry out regular inspections of above-ground conveyor systems and shall promptly remove any spillages.			
AGREEMENT TO TRANSFER				
13	The lease holder shall not enter into any agreement to transfer, sell or otherwise dispose of its interest in this authority for a period of one (1) year from the date of this authority without first notifying the Minister, in writing, and obtaining the Minister's consent to such action.	Not Triggered		
MANAGEMENT AND REHABILITATION OF LANDS (GENERAL)				
14	The lease holder shall not interfere in any way with any fences on or adjacent to the subject area unless with the prior written approval of the owner thereof or the Minister and subject to such conditions as the Minister may stipulate.	Not Triggered	No evidence of this being triggered.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
15	The lease holder shall observe any instruction given or which may be given by the Minister with a view to minimising or preventing public inconvenience or damage to public or private property as far as practicable and consistent with the lease holder's rights under this authority and under any applicable statute.	Not Triggered	No evidence of this being triggered.	
16	Subject to any specific condition of this authority providing for rehabilitation of any part of the subject area affected by mining or activities associated therewith, the lease holder shall; (a) shape and revegetate to the satisfaction of the Minister, any part of the subject area that may, in the opinion of the Minister have been damaged or deleteriously affected by mining operations and ensure such areas are permanently stabilised, and, (b) reinstate and make safe, including sealing and/or fencing, any excavation within the subject area.	Compliant	There was some general directions about improving rehabilitation across site in a letter from DPIE - RR dated 29 June 2018. Additional information was outlined in the RMP and Annual Review. It is understood that additional re-working is to be undertaken in the Saddlers Creek area. Appears to be doing additional work in this lease which makes it compliant with this condition. Works still ongoing therefore no further recommendation.	
17	If required to do so by the Minister and within such time as may be stipulated by the Minister the lease holder shall carry out to the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent landholdings to determine the effect of operations on any such structures, buildings and pipelines.	Not Triggered	No evidence of this being triggered.	
18 (a)	The lease holder shall each year once operations have commenced, submit for the Minister's approval an "Annual Environmental Management Report" relating to the operations of the lease holder on the subject area.	Compliant	Annual Review meets these requirements.	
18 (b)	The date by which the Report must be submitted will be determined by the Minister after consulting with the lease holder.	Compliant	Annual Review meets these requirements.	
18 (c)	The Report shall comprise: (i) a plan showing short, medium and long term mining plans; (ii) a rehabilitation report (in respect of open cut operations) and/or a surface environmental management report (in respect of underground operations); (iii) a review of performance in terms of Environment Protection Authority and Department of Water Resources licence and approval conditions (related to the Clean Air Act 1961, the Clean Waters Act 1970, the Noise Control Act 1975, the Environmentally Hazardous Chemical Act 1985, the Pollution Control Act 1970 and the Water Act 1912) applicable to the subject area; (iv) a review of performance in terms of Development Consent conditions for the subject area; (v) a listing of any variations obtained to approvals applicable to the subject area during the previous year.	Compliant	Annual Review meets these requirements.	
14 (d)	The Minister may, by notice in writing, direct the lease holder to undertake any operations or remedial actions in such a reasonable manner and within such a reasonable period as may be specified in that notice so as to ensure that operations on the subject area conform to the requirements of relevant statutory approvals or licences.	Compliant	There was some general directions about improving rehabilitation across site in a letter from DPIE - RR dated 29 June 2018. Additional information was outlined in the RMP and Annual Review. It is understood that additional re-working is to be undertaken in the Saddlers Creek area. Appears to be doing additional work in this lease which makes it compliant with this condition. Works still ongoing therefore no further recommendation.	
14 (e)	The lease holder shall conduct operations on the subject area in accordance with an "open cut application" approved by the Minister and any conditions contained in the Minister's approval of that application. Where the lease holder is of the opinion that the approved operations should be amended the lease holder shall submit an amendment for the Minister's approval.	Compliant	No evidence of non - compliance with this condition.	
19	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by the lease holder.	Compliant	There was some general directions about improving rehabilitation across site in a letter from DPIE - RR dated 29 June 2018. Additional information was outlined in the RMP and Annual Review. It is understood that additional re-working is to be undertaken in the Saddlers Creek area. Appears to be doing additional work in this lease which makes it compliant with this condition. Works still ongoing.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
20	Upon completion of operations on the surface of the subject area or upon the expiry or sooner determination of this authority or any renewal thereof, the lease holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.	Not Triggered	Operations still ongoing.	
21	The lease holder shall maintain the subject area in a clean and tidy condition at all times.	Compliant	General tidy from site inspection.	
22	The lease holder shall take all precautions against causing outbreak of fire on the subject area.	Compliant	Bushfire MP.	
23 (a)	Ground Vibration The lease holder shall ensure that the ground vibration peak particle velocity generated by any blasting within the subject area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be.	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
23 (b)	Blast Overpressure The lease holder shall ensure that the blast overpressure noise level generated by any blasting within the subject area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be.	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
23 (c)	Blasting will not be carried out outside the hours of 9 am and 5 pm except with the prior notification and approval of the Inspector.	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
24	Where the lease holder intends to conduct operations in or adjacent to any river, stream, creek, tributary, lake, dam or reservoir the subject of a proclamation under the Fisheries and Oyster Farms Act, 1935, relating to or prohibiting the taking of species of fish, the lease holder shall, not less than seven (7) days before commencement of such operations give notice in writing to the District Inspector of Fisheries setting out details of such operations and the river, stream, creek, tributary, lake, dam or reservoir that shall or may be affected thereby.	Not Triggered	Evidence of extraction limit and alluvial standoff boundary.	
25	The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area, or any undue interference to fish or their environment.	Not Triggered	No evidence of this being triggered.	
TREES (PLANTING AND PROTECTION OF) FLORA AND FAUNA AND ARBOREAL SCREENS				
26	The lease holder shall carry out operations in such a manner as to interfere as little as possible with flora and fauna and shall not cut or damage any tree, shrub or other vegetative cover except such as may directly obstruct or prevent the carrying out of the operations.	Compliant	Operations still ongoing.	
27	The lease holder shall plant such grasses, trees or shrubs or such other vegetation as may be required by the Minister and care for same during the currency of this authority or any renewal thereof, to the satisfaction of the Minister.	Compliant		
28	The lease holder shall not fell trees, strip bark or cut timber on any land within the subject area except with the approval of the owner/occupier and subject to the payment to the owner of the trees, bark or timber of compensation as agreed or as assessed by the Warden.	Compliant		
29	The lease holder shall maintain an arboreal screen to the satisfaction of the Minister within such parts of the subject area as may be specified by the Minister and shall plant such trees or shrubs as may be required by the Minister to preserve the arboreal screen in a condition satisfactory to the Minister.	Compliant		
30	The lease holder shall cover with top dressing material, to the Minister's satisfaction, such parts of the subject area as may be stipulated by the Minister and shall plant and maintain, to the Minister's satisfaction, such grasses, trees or shrubs or such other vegetation as may be required by the Minister.	Compliant		
31	Notwithstanding the provisions of Condition No 26, the lease holder shall not destroy or injure any tree, sapling, shrub or scrub on any protected land, as defined by the Soil Conservation Act, 1938, except in accordance with an authority issued by the Catchment Areas Protection Board, under Section 21D of that Act.	Compliant		
SOIL EROSION				
32	The lease holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the lease holder shall observe and perform any instructions given or which may be given by the Minister with a view to minimising or preventing soil erosion.	Compliant	No evidence of non - compliance with this condition.	
33	The lease holder shall ensure that any topsoil or other material suitable for topdressing purposes which may be disturbed during operations shall be removed separately for replacement as far as may be practicable and the lease holder shall plant or sow such grasses, shrubs or trees in the replaced surface material as may be considered necessary by the Minister to control or prevent soil erosion.	Compliant	Topsoil has been stripped and stockpiled in this area. Erosion control is as per the site ESCP and relevant site procedures.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
34	In the event of any excavations being made the lease holder shall ensure that such are refilled and the topsoil previously removed is replaced and levelled. All such refilling and levelling shall be done to the satisfaction of the Minister.	Compliant	Topsoil has been stripped and stockpiled in this area. Erosion control is as per the site ESCP and relevant site procedures.	
35	The lease holder shall ensure that the runoff from any disturbed area including the overflow from any depression or ponded area is discharged in such a manner that it will not cause erosion.	Compliant	No evidence of non - compliance with this condition. No evidence of runoff from rehabilitation or disturbed areas offsite.	
ROADS				
36	The lease holder shall pay to Muswellbrook Shire Council, Department of Conservation and Land Management or the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive of making good any damage caused by operations carried on by or under the authority of the lease holder to any road and road easements adjoining or traversing the surface of the subject area. PROVIDED HOWEVER that the amount to be paid by the lease holder as aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Conservation and Land Management or the Chief Executive, Roads and Traffic Authority as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in settlement of a claim for compensation for the same damage.	Compliant	Evidence of continued road maintenance contributions.	
37	In the event of operations being conducted on the surface of any road, track or fire trail traversing the subject area or in the event of such operations causing damage to or interference with any such road, track or fire trail the lease holder, at his own expense, shall if directed, to do so by the Minister provide to the satisfaction of the Minister an alternate road, track or fire trail in a position as required by the Minister and shall allow free and uninterrupted access along such alternate road, track or fire trail and, if required to do so by the Minister, the lease holder shall upon completion of operations rehabilitate the surface of the original road, track or fire trail to a condition satisfactory to the Minister.	Not Triggered		
TRIG. STATIONS AND SURVEY MARKS				
38 (a)	The marks in connection with any trigonometrical station, Permanent Mark or State Survey Mark (under the Survey Co-ordination Act, 1949) erected on or near the subject area shall not be interfered with and the unrestricted right of access to such station by authorised persons and also the right to clear sight lines to surrounding stations is reserved at all times.	Compliant		
38 (b)	The lease holder shall take all necessary precautions to preserve the trigonometrical station, Permanent Mark or State Survey Mark (under the Survey Co-ordination Act, 1949) and the cairn, mast and vanes which might be erected upon the subject area.	Compliant		
38 (c)	No buildings or other structures shall be erected which would make observations to and from surrounding trigonometrical stations difficult to effect.	Compliant		
38 (d)	(d) In the event of operations interfering with or damaging any trigonometrical station, Permanent Mark or State Survey Mark (under the Survey Co-ordination Act, 1949) erected on or near the subject area, or if required to do so by the Minister, the lease holder shall relocate any such trigonometrical station, Permanent Mark or State Survey Mark (under the Survey Co-ordination Act, 1949) to the satisfaction of, and in a position required by, the Department of Conservation and Land Management, the Land Information Centre, Bathurst and the Minister and, if required to do so by the Minister, and subject to such conditions as the Minister may impose, the lease holder, upon completion of operations shall relocate any such trigonometrical station, Permanent Mark or State Survey Mark (under the Survey Co-ordination Act, 1949) to its original position.	Not Triggered		
RESERVES				
39	The lease holder shall permit the free and uninterrupted passage of stock through that part or those parts, as the case may be, of the subject area covered by the relocated Beers Travelling Stock Reserve as agreed with the Pastures Protection Board and shall conduct operations as not to cause any danger to persons and travelling stock.	Compliant	No reasons to determine non - compliance.	
40	The lease holder shall as far as may be practicable so conduct operations as not to interfere in any way with the public use and enjoyment of the relocated Reserve No. 28829 for camping purposes.	Compliant	No reasons to determine non - compliance.	
TRANSMISSION LINES. COMMUNICATION LINES AND PIPELINES				
41	The lease holder shall as far as is practicable so conduct operations as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the surface or the excepted surface of the subject area and shall comply with any direction given or which may be given by the Minister in this regard.	Not Triggered	Based on information provided there was no movement of externally owned transmission lines, communications lines or pipeline	
42	Unless with the consent of Pacific Power or Shortland Electricity, as the case may be, the lease holder shall not carry out any operations within any easement for any power transmission line traversing the subject area.	Not Triggered	Based on information provided there was no movement of externally owned transmission lines, communications lines or pipeline	
ABORIGINAL PLACE OR RELIC				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
43	The lease holder shall not knowingly destroy, deface or damage any aboriginal place or relic within the subject area except in accordance with an authority issued under the National Parks and Wildlife Act, 1974, and shall take every precaution in drilling, excavating or disturbing the land against any such destruction, defacement or damage.	Compliant	Based on information provided this has not occurred.	
LABOUR/EXPENDITURE				
44	The lease holder shall during each year of the term of the authority:- (a) ensure that at least 136 workers are efficiently employed on the subject area or (b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than \$2,380,000.00. The Minister may, at any time, increase or decrease the amount of expenditure or labour required.	Compliant	Greater than this number are employed.	
ADDITIONAL INFORMATION				
45	The lease holder shall if directed by the Minister and within such time as the Minister may stipulate furnish to the Minister:- (a) information regarding the ownership of the land within the subject area; (b) information regarding the ownership of the coal within the subject area prior to 1st January 1982; (c) an indemnity in a form approved by the Minister indemnifying the Crown and the Minister against any wrong payment effected as a result of incorrect information furnished under clauses (a) and (b) of this condition; (d) information regarding the financial viability of the lease holder and operations within and associated with the subject area; and (e) information regarding shareholdings in the lease holder.	Not Triggered		
SERVICE OF NOTICES				
46	Within a period of three months from the date of this authority or a period of three months from the date of service of the notice of renewal, or within such further time as the Director-General may allow the lease holder shall serve on each owner and occupier of the private land and on each occupier of the Crown land held under a pastoral lease within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area. If there are ten or more owners or occupiers affected the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes, the surface and shall contain an adequate plan and description of the subject area.	Not Triggered	Not renewed in IEA period.	
INSPECTORS				
47	(a) Where the Inspector is of the opinion that any condition of this authority relating to operations within the subject area, or any provision of the Mining Act, 1992, relating to operations within the subject area, are not being complied with by the lease holder, the Inspector may serve on the lease holder a notice stating that and give particulars of the reason why, and may in such notice direct the lease holder:- (i) to cease operations within the subject area in contravention of that condition or Act; and (ii) to carry out within the specified time works necessary to rectify or remedy the situation. (b) The lease holder shall comply with the lawful directions contained in any notice served pursuant to sub-paragraph (a) of this condition. The Director-General may confirm, vary or revoke any such direction. (c) A notice referred to in this condition may be served on the Colliery Manager.	Not Triggered	Although there has been consultation with DPI-RR this does not appear to have been triggered.	
INDEMNITIES				
49	The lease holder shall save harmless the Crown from payment of compensation and from and against all claims, actions, suits or demands whatsoever in the event of any damage resulting from mining operations under or near the subject area.	Noted		
PROSPECTING (GENERAL)				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
50	<p>(a) Where the lease holder desires to commence prospecting operations in the subject area the lease holder shall notify the Director-General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations.</p> <p>(b) Where the lease holder notifies the Director-General pursuant to sub-paragraph (a) of this condition the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.</p>	Not Triggered		
51	<p>(a) The lease holder shall, within two (2) months of being requested by the Director-General, lodge with the Minister the sum of \$50,000.00 in accordance with Instructions for Manner of Lodgment of Security Deposits as security for the fulfillment of the obligations of the lease holder under this authority. In the event that the lease holder fails to fulfil any of its obligations under this authority the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purposes of this clause a lease holder shall be deemed to have failed to fulfil its obligations under this authority, if it fails to comply with any condition or provision of this authority, any provision of the Act or regulations made thereunder or any condition or direction lawfully imposed or given pursuant to a condition or provision of this authority or of any provision of the Act or regulations made thereunder.</p> <p>(b) The Minister may at any time after the commencement of this authority or any renewal thereof, vary the amount of security required in accordance with this condition.</p> <p>(c) Where the amount of security has been increased pursuant to clause (b) hereof the lease holder shall, within two (2) months of being requested by the Minister, lodge a security for the amount of security required, in which case the Minister shall refund or release to the lease holder the security previously lodged.</p>	Compliant	Evidence of bond.	
ROYALTY AT ADDITIONAL RATE				
52	The lease holder shall during the term of this authority pay to the Minister royalty at the additional rate as prescribed by the Regulations for crown coal recovered by open cut mining methods from the area.	Compliant	Evidence of three separate Annual Royalties for mining leases covering financial year periods. Documents are undated. Evidence from 'Revenue NSW'. Meets requirements of this condition.	
MISCELLANEOUS				
53	Within ninety (90) days of the grant of this lease, the lease holder shall reimburse the Electricity Commission of New South Wales (trading as Pacific Power) all reasonable costs of exploration previously carried out in the lease area. This reimbursement is to be in current costs terms and any dispute regarding the amount shall be referred to the Minister for resolution.	Not Triggered		
54	Should the lease holder acquire exclusive rights to the use of the land within the Beers Travelling Stock Reserve or Camping Reserve No. 28829, documentary evidence confirming these rights must be forwarded to the Minister.	Not Triggered		
55	The lease holder shall ensure that no contaminated mine water is released from the area of the lease other than in accordance with a water discharge licence issued by the Environment Protection Authority	Not Triggered		
56	The lease holder shall seek approval from Pacific Power or Shortland Electricity, as the case may be, prior to the relocation of any of their power transmission lines.	Not Triggered		
57	The lease holder shall be responsible for all costs associated with the relocation of any power transmission line.	Not Triggered		
58	The lease holder shall, if mining operations within the subject area adversely effect the insulation capability of the 500 Kv Transmission line, and if required by Pacific Power, meet the reasonable costs of upgrading insulation on the 500Kv transmission line to combat dust deposition effects due to the operations of the lease holder.	Not Triggered		
59	The lease holder shall limit peak particle velocity at the 500 Kv Transmission line towers to 25 mm/sec, as set out in Section 11 of the SAA Explosives Code AS 2187-1983 Part 2, unless otherwise agreed by Pacific Power.	Not Triggered		
60	Whilst the lease holder shall do all that is reasonably practical to avoid flyrock in the vicinity of the 500 Kv Transmission line, the lease holder shall pay all costs associated with any reasonable repair to the said 500 Kv Transmission Line made necessary by flyrock damage from mining operations.	Not Triggered		
61	The lease holder shall, if it's operations are found to adversely affect or are confidently predicted to have an adverse affect, and if required by Pacific Power, undertake further theoretical and practical research into the risks involved with dust clouds passing through the 500 Kv Transmission Line and it's structures, to the satisfaction of Pacific Power.	Not Triggered		
62	The lease holder shall provide evidence to the satisfaction of Pacific Power that the lease holder's public liability insurance policy will cover any operational costs and loss of profit arising from any unagreed and unintentional outage of the 500 Kv Transmission line caused by the lease holders activities.	Not Triggered		
63	The lease holder shall obtain the written approval of Pacific Power for all activities, structures and improvements within the 500 Kv Transmission line easement.	Not Triggered		

Mining Lease 1548

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
CONDITIONS OF AUTHORITY (ML) (2004)				
Notice to Landholders				
1	<p>Within a period of three months from the date of grant/renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.</p> <p>If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.</p>	Not Triggered	No renewal.	
Mining, Rehabilitation, Environmental Management Process (MREMP)				
Mining Operations Plan (MOP)				
2 (1)	<p>Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:-</p> <p>(a) ongoing mining operations and environmental management; and</p> <p>(b) ongoing monitoring of the project.</p>	Compliant	Activities generally in accordance with the MOP.	
2 (2)	The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.	Compliant	Activities generally in accordance with the MOP.	
2 (3)	<p>A Plan must be lodged with the Director-General:-</p> <p>(a) prior to the commencement of mining operations (including mining purposes);</p> <p>(b) subsequently as appropriate prior to the expiry of any current Plan; and</p> <p>(c) in accordance with any direction issued by the Director-General.</p>	Compliant	Activities generally in accordance with the MOP.	
2 (4)	<p>The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:-</p> <p>(a) area(s) proposed to be disturbed under the Plan;</p> <p>(b) mining and rehabilitation method(s) to be used and their sequence;</p> <p>(c) areas to be used for disposal of tailings/waste; (d) existing and proposed surface infrastructure;</p> <p>(d) existing flora and fauna on the site;</p> <p>(f) progressive rehabilitation schedules;</p> <p>(g) areas of particular environmental, ecological and cultural sensitivity and measures to protect these areas;</p> <p>(h) water management systems (including erosion and sediment controls);</p> <p>(i) proposed resource recovery; and</p> <p>(j) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation.</p>	Compliant	Activities generally in accordance with the MOP.	
2 (5)	The Plan when lodged will be reviewed by the Department of Mineral Resources.	Compliant	Activities generally in accordance with the MOP.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
2 (6)	The Director-General may within two (2) months of the lodgement of a Plan, require modification and re-lodgement.	Compliant	Activities generally in accordance with the MOP.	
2 (7)	If a requirement in accordance with clause (6) is not issued within two (2) months of the lodgement of a Plan, the lease holder may proceed with implementation of the Plan.	Compliant	Activities generally in accordance with the MOP.	
2 (8)	During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.	Compliant	Activities generally in accordance with the MOP.	
Annual Environmental Management Report (AEMR)				
3 (1)	Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.	Compliant	Evidence of Annual Reviews.	
3 (2)	The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of: (a) the accepted Mining Operations Plan; (b) development consent requirements and conditions; (c) Department of Environment and Conservation and Department of Infrastructure, Planning and Natural Resources licences and approvals; (d) any other statutory environmental requirements; (e) details of any variations to environmental approvals applicable to the lease area; and (f) where relevant, progress towards final rehabilitation objectives.	Compliant	Evidence of Annual Reviews.	
3 (3)	After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.	Compliant	Evidence of Annual Reviews.	
3 (4)	The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies and the local council.	Compliant	Evidence of Annual Reviews.	
Subsidence Management				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
4	<p>(a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.</p> <p>(b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or miniwalls, associated first workings (gateroads, installation roads and associated main headings, etc), and pillar extractions, and are otherwise defined by the Guideline for Applications for Subsidence Management Approvals.</p> <p>(c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, an approval under the Goa/ Mines Regulation Act 1982, or the document New Subsidence Management Plan Approval Process - Transitional Provisions.</p> <p>(d) Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.</p> <p>(e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence - Policy.</p>	Not Triggered	Not part of this Open Cut IEA.	
Working Requirement				
5	<p>The lease holder must:</p> <p>(a) ensure that at least 4 competent people are efficiently employed on the lease area on each week day except Saturday or any week day that is a public holiday,</p> <p>OR</p> <p>(b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$70,000 per annum whilst the lease is in force.</p> <p>The Minister may at any time or times, by instrument in writing served on the lease holder, increase or decrease the expenditure required or the number of people to be employed.</p>	Compliant	Covers this requirement.	
Control of Operations				
6	<p>(a) If an Environmental Officer of the Department of Mineral Resources believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:-</p> <p>(i) cease working the lease; or</p> <p>(ii) cease that part of the operation not complying with the Act or conditions; until in the opinion of the Environmental Officer the situation is rectified.</p> <p>(b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.</p> <p>(c) A direction referred to in this condition may be served on the Mine Manager.</p>	Not Triggered	Despite consultation with DPIE-RR this specific condition has not been triggered.	
Reports				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
7	<p>7. The lease holder must provide an exploration report, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director- General may stipulate, of each year. The report must be to the satisfaction of the Director- General and contain the following:</p> <p>(a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;</p> <p>(b) Details of expenditure incurred in conducting that exploration;</p> <p>(c) A summary of all geological findings acquired through mining or development evaluation activities;</p> <p>(d) Particulars of exploration proposed to be conducted in the next twelve months period;</p> <p>(e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.</p>	Compliant	Evidence of exploration reports between 2018 and 2020. The DPIE sent a letter dated 16 January 2019 outlining that leases CCL 744, CL 396, MPL 263, ML 1358, ML 1487, ML 1548, ML 1593, ML 1655, ML 1739, ML 1757 did not need to be submitted until 26 February 2019. Therefore MAC met these timing requirements.	
Licence to Use Reports				
8	<p>(a) The lease holder grants to the Minister, by way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright.</p> <p>(b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.</p>	Noted		
Confidentiality				
9	<p>(a) All exploration reports submitted in accordance with the conditions of this lease will be kept confidential while the lease is in force, except in cases where:</p> <p>(i) the lease holder has agreed that specified reports may be made non-confidential.</p> <p>(ii) reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.</p> <p>(b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated.</p> <p>(c) The Director-General may extend the period of confidentiality.</p>	Noted		
Terms of the non-exclusive licence				
10	<p>The terms of the non-exclusive copyright licence granted under condition 8 (a) are:</p> <p>(a) the Minister may sub-licence others to publish, print, adapt and reproduce but not on- licence reports.</p> <p>(b) the Minister and any sub-licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.</p> <p>(c) the lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavors to identify those parts of the report for which the lease holder owns the copyright.</p> <p>(d) there is no royalty payable by the Minister for the licence.</p> <p>(e) if the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder, that licence is revocable on the giving of a period of not less than three months notice.</p>	Noted		
Blasting				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
11 (a)	<p>Ground Vibration</p> <p>The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment and Conservation.</p>	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
11 (b)	<p>Blast Overpressure</p> <p>The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Conservation.</p>	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
Safety				
12	<p>Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.</p>	Compliant	No evidence of non - compliance.	
Rehabilitation				
13	<p>(a) Land disturbed must be rehabilitated to a stable and permanent form suitable for a subsequent land use acceptable to the Director-General and in accordance with the Mining Operations Plan so that:-</p> <ul style="list-style-type: none"> • there is no adverse environmental effect outside the disturbed area and that the land is properly drained and protected from soil erosion. • the state of the land is compatible with the surrounding land and land use requirements. • the landforms, soils, hydrology and flora require no greater maintenance than that in the surrounding land. • in cases where revegetation is required and native vegetation has been removed or damaged, the original species must be re-established with close reference to the flora survey included in the Mining Operations Plan. If the original vegetation was not native, any re-established vegetation must be appropriate to the area and at an acceptable density. • the land does not pose a threat to public safety. <p>(b) Any topsoil that is removed must be stored and maintained in a manner acceptable to the Director-General.</p>	Not Triggered	Ongoing condition. Not yet final rehabilitation.	
14	<p>The lease holder must comply with any direction given by the Director-General regarding the stabilisation and revegetation of any mine residues, tailings or overburden dumps situated on the lease area.</p>	Not Triggered	No specific directions in this lease.	
Exploratory Drilling				
15 (1)	<p>At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Infrastructure, Planning and Natural Resources regional hydrogeologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.</p>	Not Triggered	There was no drilling on this lease in the audit period.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
15 (2)	<p>If the lease holder drills exploratory drill holes he must satisfy the Director-General that:-</p> <p>(a) all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;</p> <p>(b) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;</p> <p>(c) all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters;</p> <p>(d) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;</p> <p>(e) if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.</p> <p>(f) once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director-General.</p> <p>(g) once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.</p>	Not Triggered	There was no drilling on this lease in the audit period.	
Prevention of Soil Erosion and Pollution				
16	Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.	TBC		
Transmission lines, Communication lines and Pipelines				
17	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the area without the prior written approval of the Director-General and subject to any conditions he may stipulate.	Not Triggered	Based on information provided there was no movement of externally owned transmission lines, communications lines or pipeline	
Fences, Gates				
18	<p>(a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate.</p> <p>(b) Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.</p>	Not Triggered	Based on information provided this was not triggered.	
Roads and Tracks				
19	<p>(a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate.</p> <p>(b) The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.</p>	Not Triggered	Based on information provided this was not triggered.	
20	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they are no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Infrastructure, Planning and Natural Resources.	Not Triggered	Based on information provided this was not triggered.	
Trees and Timber				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
21	<p>(a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or if such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden.</p> <p>(b) The lease holder must not cut, destroy, ringbark or remove any timber or other vegetative cover on the lease area except such as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provisions of the Native Vegetation Conservation Act 1997.</p> <p>(c) The lease holder must have any necessary licence from State Forests of NSW before using timber from any Crown land within the lease area.</p>	Not Triggered	Based on information provided this was not triggered.	
Resource Recovery				
23 (a)	Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to recover such minerals.	Not Triggered	Based on information provided this was not triggered.	
23 (b)	The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.	Not Triggered	Based on information provided this was not triggered.	
23 (c)	The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.	Not Triggered	Based on information provided this was not triggered.	
23 (d)	The Director-General shall issue no such report unless the matter has firstly been thoroughly discussed with and a report to the Director-General has incorporated the views of the lease holder.	Not Triggered	Based on information provided this was not triggered.	
23 (e)	The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992.	Not Triggered	Based on information provided this was not triggered.	
23 (f)	After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.	Not Triggered	Based on information provided this was not triggered.	
Indemnity				
24	The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.	Noted		
Single Security (extended)				
26 (a)	The single security given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under Mining Lease No.1487 (Act 1992) is extended to apply to this lease.	Compliant	<p>Evidence of Rehabilitation bond. Most recent 17 September 2019.</p> <p>Evidence of breakdown by leases.</p>	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
26 (b)	If the lease holder fails to fulfil any one or more of the obligations under this lease, then the security held may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of the lease if the lease holder fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder.	Not Triggered	Based on information provided this was not triggered.	
Additional Royalty				
27	The lease holder must in respect of coal recovered by open cut mining methods pay additional royalty to the Minister at the rate prescribed by the Mining Regulation 2003.	Compliant	Evidence of three separate Annual Royalties for mining leases covering financial year periods. Documents are undated. Evidence from 'Revenue NSW'. Meets requirements of this condition.	

Mining Lease 1593

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
MINING LEASE CONDITIONS 2004				
Notice to Landholders				
1	<p>Within a period of three months from the date of grant/renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.</p> <p>If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.</p>	Not Triggered	No renewal.	
Mining, Rehabilitation, Environmental Management Process (MREMP)				
Mining Operations Plan (MOP)				
2 (1)	<p>Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:-</p> <p>(a) ongoing mining operations and environmental management; and</p> <p>(b) ongoing monitoring of the project.</p>	Compliant	Activities generally in accordance with the MOP.	
2 (2)	The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.	Compliant	Activities generally in accordance with the MOP.	
2 (3)	<p>A Plan must be lodged with the Director-General:-</p> <p>(a) prior to the commencement of mining operations (including mining purposes);</p> <p>(b) subsequently as appropriate prior to the expiry of any current Plan; and</p> <p>(c) in accordance with any direction issued by the Director-General.</p>	Compliant	Activities generally in accordance with the MOP.	
2 (4)	<p>The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:-</p> <p>(a) area(s) proposed to be disturbed under the Plan;</p> <p>(b) mining and rehabilitation method(s) to be used and their sequence;</p> <p>(c) areas to be used for disposal of tailings/waste;</p> <p>(d) existing and proposed surface infrastructure;</p> <p>(e) existing flora and fauna on the site;</p> <p>(f) progressive rehabilitation schedules;</p> <p>(g) areas of environmental, ecological and cultural sensitivity and measures to protect these areas;</p> <p>(h) water management systems (including erosion and sediment controls);</p> <p>(i) proposed resource recovery; and</p> <p>(j) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation.</p>	Compliant	Activities generally in accordance with the MOP.	
2 (5)	The Plan when lodged will be reviewed by the Department.	Compliant	Activities generally in accordance with the MOP.	
2 (6)	The Director-General may within two (2) months of the lodgement of a Plan, require modification and re-lodgement.	Compliant	Activities generally in accordance with the MOP.	
2 (7)	If a requirement in accordance with clause (6) is not issued within two (2) months of the lodgement of a Plan, the lease holder may proceed with implementation of the Plan.	Compliant	Activities generally in accordance with the MOP.	
2 (8)	During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.	Compliant	Activities generally in accordance with the MOP.	
Annual Environmental Management Report (AEMR)				
3 (1)	Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.	Compliant	Evidence of Annual Reviews.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
3 (2)	<p>The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:</p> <p>(a) the accepted Mining Operations Plan;</p> <p>(b) development consent requirements and conditions;</p> <p>(c) Department of Environment and Conservation and Department of Planning licences and approvals;</p> <p>(d) any other statutory environmental requirements;</p> <p>(e) details of any variations to environmental approvals applicable to the lease area; and</p> <p>(f) where relevant, progress towards final rehabilitation objectives.</p>	Compliant	Evidence of Annual Reviews. Meets requirements.	
3 (3)	After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.	Compliant	Evidence of Annual Reviews.	
3 (4)	The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies and the local council.	Compliant	Evidence of Annual Reviews.	
Subsidence Management				
4 (a)	The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.	Not Triggered	Not part of this Open Cut IEA.	
4 (b)	Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or miniwalls, associated first workings (gateroads, installation roads and associated main headings, etc.), and pillar extractions, and are otherwise defined by the Applications for Subsidence Management Approvals guidelines (EDG17)	Not Triggered	Not part of this Open Cut IEA.	
4 (c)	The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, an approval under the Coal Mine Health and Safety Act 2002, or the document New Subsidence Management Plan Approval Process - Transitional Provisions (EDP09).	Not Triggered	Not part of this Open Cut IEA.	
4 (d)	Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.	Not Triggered	Not part of this Open Cut IEA.	
4 (e)	Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence - Policy.	Not Triggered	Not part of this Open Cut IEA.	
Working Requirement				
5	<p>The lease holder must:</p> <p>(a) ensure that at least 16 competent people are efficiently employed on the lease area on each week day except Sunday or any week day that is a public holiday,</p> <p>OR</p> <p>(b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$280,000 per annum whilst the lease is in force.</p> <p>The Minister may at any time or times, by instrument in writing served on the lease holder, increase or decrease the expenditure required or the number of people to be employed.</p>	Compliant	Covers this requirement.	
Control of Operations				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
6	<p>(a) If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:-</p> <p>(i) cease working the lease; or</p> <p>(ii) cease that part of the operation not complying with the Act or conditions; until in the opinion of the Environmental Officer the situation is rectified.</p> <p>(b) The lease holder must comply with any direction given. The Director- General may confirm, vary or revoke any such direction.</p> <p>(c) A direction referred to in this condition may be served on the Mine Manager.</p>	Not Triggered	No mining in this area. Not triggered.	
Reports				
7	<p>The lease holder must provide an exploration report, within a period of twenty- eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following:</p> <p>(a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;</p> <p>(b) Details of expenditure incurred in conducting that exploration;</p> <p>(c) A summary of all geological findings acquired through mining or development evaluation activities;</p> <p>(d) Particulars of exploration proposed to be conducted in the next twelve months period;</p> <p>(e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.</p>	Compliant	Evidence of exploration reports between 2018 and 2020. The DPIE sent a letter dated 16 January 2019 outlining that leases CCL 744, CL 396, MPL 263, ML 1358, ML 1487, ML 1548, ML 1593, ML 1655, ML 1739, ML 1757 did not need to be submitted until 26 February 2019. Therefore MAC met these timing requirements.	
Licence to Use Reports				
8	<p>(a) The lease holder grants to the Minister, by way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright.</p> <p>(b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.</p>	Noted		
Confidentiality				
9	<p>(a) All exploration reports submitted in accordance with the conditions of this lease will be kept confidential while the lease is in force, except in cases where:</p> <p>(i) the lease holder has agreed that specified reports may be made non- confidential.</p> <p>(ii) reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.</p> <p>(b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent Dow-on title, has terminated.</p> <p>(c) The Director-General may extend the period of confidentiality.</p>	Noted		
Terms of the non-exclusive licence				
10	<p>The terms of the non-exclusive copyright licence granted under condition 8 (a) are:</p> <p>(a) the Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.</p> <p>(b) the Minister and any sub- licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.</p> <p>(c) the lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.</p> <p>(d) there is no royalty payable by the Minister for the licence.</p> <p>(e) if the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder, that licence is revocable on the giving of a period of not less than three months notice.</p>	Noted		
Blasting				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
11 (a)	<p>Ground Vibration</p> <p>The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment and Conservation.</p>	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
11 (b)	<p>Blast Overpressure</p> <p>The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Conservation.</p>	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
Safety				
12	<p>Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.</p>	Compliant	No evidence of non - compliance.	
Rehabilitation				
13	<p>(a) Land disturbed must be rehabilitated to a stable and permanent form suitable for a subsequent land use acceptable to the Director-General and in accordance with the Mining Operations Plan so that:-</p> <ul style="list-style-type: none"> • there is no adverse environmental effect outside the disturbed area and that the land is properly drained and protected from soil erosion. • the state of the land is compatible with the surrounding land and land use requirements. • the landforms, soils, hydrology and flora require no greater maintenance than that in the surrounding land. • in cases where revegetation is required and native vegetation has been removed or damaged, the original species must be re-established with close reference to the flora survey included in the Mining Operations Plan. If the original vegetation was not native, any re-established vegetation must be appropriate to the area and at an acceptable density. • the land does not pose a threat to public safety. <p>(b) Any topsoil that is removed must be stored and maintained in a manner acceptable to the Director-General.</p>	Not Triggered	Not triggered.	
14	<p>The lease holder must comply with any direction given by the Director-General regarding the stabilisation and revegetation of any mine residues, tailings or overburden dumps situated on the lease area.</p>	Not Triggered		
Exploratory Drilling				
15	<p>(1) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Natural Resources regional hydrogeologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.</p> <p>(2) If the lease holder drills exploratory drill holes he must satisfy the Director- General that:-</p> <p>(a) all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;</p> <p>(b) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;</p> <p>(c) all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters;</p> <p>(d) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;</p> <p>(e) if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.</p> <p>(f) once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director-General.</p> <p>(g) once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition</p>	Not Triggered	There was no drilling on this lease in the audit period.	
Prevention of Soil Erosion and Pollution				
16	<p>Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.</p>	Compliant	No evidence of large erosion in this lease.	
Transmission lines, Communication lines and Pipelines				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
17	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions he may stipulate.	Not Triggered	Based on information provided there was no movement of externally owned transmission lines, communications lines or pipeline.	
Fences, Gates				
18	(a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate. (b) Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.	Not Triggered	Based on information provided this was not triggered.	
Roads and Tracks				
19	(a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate. (b) The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.	Not Triggered	Based on information provided this was not triggered.	
20	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they are no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Natural Resources.	Not Triggered	Based on information provided this was not triggered.	
Trees and Timber				
21	(a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or if such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden. (b) The lease holder must not cut, destroy, ringbark or remove any timber or other vegetative cover on the lease area except such as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provisions of the Native Vegetation Act 2003. (c) The lease holder must obtain all necessary approvals or licences before using timber from any Crown land within the lease area.	Not Triggered	Based on information provided this was not triggered.	
Resource Recovery				
23 (a)	Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to recover such minerals.	Not Triggered	Based on information provided this was not triggered.	
23 (b)	The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.	Not Triggered	Based on information provided this was not triggered.	
23 (c)	The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.	Not Triggered	Based on information provided this was not triggered.	
23 (d)	The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General has incorporated the views of the lease holder.	Not Triggered	Based on information provided this was not triggered.	
23 (e)	The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992.	Not Triggered	Based on information provided this was not triggered.	
23 (f)	After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.	Not Triggered	Based on information provided this was not triggered.	
Indemnity				
24	The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.	Noted		
Single Security (extended)				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
26	<p>(a) The single security given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under Consolidated Coal Lease 744 (Act 1973), Coal Lease 396 (Act 1973) and Mining Purposes Lease 263 (Act 1973) are extended to apply to this lease.</p> <p>(b) If the lease holder fails to fulfil any one or more of the obligations under this lease, then the security held may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of the lease if the lease holder fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder.</p>	Compliant	<p>Evidence of Rehabilitation bond. Most recent 17 September 2019.</p> <p>Evidence of breakdown by leases.</p>	

Mining Lease 1655

Date of Lease: 3 March 2011

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
MINING LEASE CONDITIONS 2010				
Notice to Landholders				
1	<p>(a) Within a period of three months from the date of grant/renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.</p> <p>(b) If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.</p>	Not Triggered	No renewal.	
Environmental Harm				
2	<p>(a) The lease holder must implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of any activities under this lease.</p> <p>(b) For the purposes of this condition:</p> <p>(i) environment means components of the earth, including:</p> <p>(A) land, air and water, and (B) any layer of the atmosphere, and (C) any organic or inorganic matter and any living organism, and (D) human-made or modified structures and areas, and includes interacting natural ecosystems that include components referred to in paragraphs (A)-(C).</p> <p>(ii) harm to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution, contributes to the extinction or degradation of any threatened species, populations or ecological communities and their habitats and causes impacts to places, objects and features of significance to Aboriginal people.</p>	Not Triggered	Not triggered	
Mining Operations Plan				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
3	<p>(a) Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General.</p> <p>(b) The MOP must:</p> <ul style="list-style-type: none"> (i) identify areas that will be disturbed by mining operations; (ii) detail the staging of specific mining operations; (iii) identify how the mine will be managed to allow mine closure; (iv) identify how mining operations will be carried out in order to prevent and or minimise harm to the environment; (v) reflect the conditions of approval under: <ul style="list-style-type: none"> • the Environmental Planning and Assessment Act 1979 • the Protection of the Environment Operations Act 1997 • and any other approvals relevant to the development including the conditions of this lease; and • have regard to any relevant guidelines adopted by the Director-General. <p>(c) The leaseholder may apply to the Director-General to amend an approved MOP at any time.</p> <p>(d) It is not a breach of this condition if:</p> <ul style="list-style-type: none"> (i) the operations constituting the breach were necessary to comply with a lawful order or direction given under the Mining Act 1992, the Environmental Planning and Assessment Act 1979, Protection of the Environment Operations Act 1997, Mine Health and Safety Act 2004 I Coal Mine Health and Safety Act 2002 and Mine Health and Safety Regulation 2007 I Coal Mine Health and Safety Regulation 2006 or the Occupational Health and Safety Act 2000; and (ii) the Director-General had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out. <p>(e) A MOP ceases to have effect 7 years after date of approval or other such period as identified by the Director-General.</p>	Compliant	Activities generally in accordance with the MOP.	
Environment Management Report				
4	<p>(a) The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the Director-General.</p> <p>(b) The EMR must:</p> <ul style="list-style-type: none"> (i) report against compliance with the MOP; (ii) report on progress in respect of rehabilitation completion criteria; (iii) report on the extent of compliance with regulatory requirements; and (iv) have regard to any relevant guidelines adopted by the Director-General; 	Compliant	Evidence of Annual Reviews. Meets requirements.	
Environment Incident Report				
5	<p>(a) The lease holder must report any environmental incidents. The report must:</p> <ul style="list-style-type: none"> (i) be prepared according to any relevant Departmental guidelines; (ii) be submitted within 24 hours of the environmental incident occurring; <p>(b) For the purposes of this condition, environmental incident includes:</p> <ul style="list-style-type: none"> (i) any incident causing or threatening material harm to the environment (ii) any breach of Conditions 1 to 9 and 11 to 24; (iii) any breach of environment protection legislation; or, (iv) a serious complaint from landholders or the public. <p>(c) For the purposes of this condition, harm to the environment is material if:</p> <ul style="list-style-type: none"> (i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or (ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, where loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment. 	Not Triggered	Not triggered	
Additional Environmental Reports				
6	Additional environmental reports may be required from time to time as directed in writing by the Director-General and must be lodged as instructed.	Noted	Annual Reviews include updates following government feedback.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
Rehabilitation				
7	Any disturbance as a result of activities under this lease must be rehabilitated to the satisfaction of the Director-General.	Not Triggered	Lease is still active, with this a final landform condition.	
Blasting				
10	<p>a) Ground Vibration The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment, Climate Change and Water.</p> <p>(b) Blast Overpressure The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment, Climate Change and Water.</p>	Compliant	Evidence of blasting results. See Condition L6 for further details. Meets the requirements.	
Safety				
11	Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be notified in writing to the Department and filled in or otherwise rendered safe to a standard acceptable to the Director-General.	Compliant	No evidence of non - compliance.	
Prevention of soil erosion and pollution				
12	Prospecting operations must be carried out in a manner that does not cause or aggravate air pollution, water (including groundwater) pollution, soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan.	Compliant	No evidence of non - compliance.	
Transmission lines, Communication lines and Pipelines				
13	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions stipulated.	Not Triggered	Based on information provided there was no movement of externally owned transmission lines, communications lines or pipeline.	
Roads and Tracks				
14	<p>(a) The lease holder must pay to the relevant roads authority in control of the road or track the reasonable costs incurred by the roads authority in making good any damage to roads or tracks caused by operations carried out under this lease less any amount paid or payable from the Mine Subsidence Compensation Fund.</p> <p>(b) During wet weather the use of any road or track must be restricted so as to prevent damage to the road or track.</p> <p>(c) Existing access tracks should be used for all operations where reasonably practicable. New access tracks must be kept to a minimum and be positioned in order to minimise damage to the land, watercourses or vegetation.</p> <p>(d) Temporary access tracks must be rehabilitated and revegetated to the satisfaction of the Director-General as soon as reasonably practicable after they are no longer required under this lease.</p>	Not Triggered	Based on information provided this was not triggered.	
Trees and Vegetation				
15	<p>(a) The lease holder must not fell trees, strip bark or cut timber on any land subject of this lease without the consent of the landholder who is entitled to the use of the timber.</p> <p>(b) The lease holder must contact Forests NSW and obtain any required permit, licence or approval before taking timber from any Crown land within the lease area.</p> <p><i>Note: Any clearing not authorised under the Act must comply with the requirements of the Native Vegetation Act 2003. Any clearing or taking of timber on Crown land is subject to the requirements of the Forestry Act 1916.</i></p>	Not Triggered	Based on information provided this was not triggered.	
Indemnity				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
18	The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.	Noted		
Single Security (extended)				
21	The single security given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under Mining Lease 1487 (Act 1992) and Mining Lease 1548 (Act 1992) is extended to apply to this lease.	Compliant	Evidence of Rehabilitation bond. Most recent 17 September 2019. Evidence of breakdown by leases.	
Suspension of Mining Operations				
23	The holder of a mining lease may not suspend mining operations in the mining area other than in accordance with the consent of the Minister.	Noted		
Cooperation Agreement				
24	<p>The lease holder must make every reasonable attempt, and be able to demonstrate their attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issues such as:</p> <ul style="list-style-type: none"> • access arrangements • operational interaction procedures • dispute resolution • information exchange • well location • timing of drilling • potential resource extraction conflicts and • rehabilitation issues. <p><i>Note: Exploration Reports (Geological and Geophysical)</i> <i>The lease holder must lodge reports to the satisfaction of the Director-General in accordance with section 163C of the Mining Act 1992 and in accordance with clause 57 of the Mining Regulation 2010.</i> <i>Reports must be prepared in accordance with Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales (Department of Industry and Investment, 2010).</i></p>	N/A	N/A to the context of this Audit.	

Mining Lease No 263

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
1	In the event that the registered holder proposes to deposit or dump on the subject area any mine residues or tailings in conjunction with open cut workings or surface mining operations to be carried out in the Bayswater No.2 Colliery Holding, the registered holder shall include any such proposal in its application to carry out any such workings or operations, and the registered holder shall not dump or deposit any mine residues or tailings on the subject area until the Minister has approved of the carrying out of open cut workings or surface mining operations and subject to such conditions as the Minister may impose.	Compliant	This covers the pit top area. Some overburden. No issues with compliance with this condition.	
2	The registered holder shall comply with any direction, (including directions regarding the spraying, stabilisation and revegetation of dumps) given or which may be given by the Minister regarding the dumping on the subject area of any: - (a) coal (b) minerals (c) mine residues, or (d) tailings	Not Triggered	Based on the information provided there has been no direction.	
3	Settling dams or other dams constructed or to be constructed on the subject area shall be constructed, maintained and sealed to the satisfaction of the Minister.	Not Triggered	Final landuse condition.	
4	The registered holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contaminated waters discharging or escaping from the subject area onto surrounding areas and shall comply with any direction given or which may be given in this regard by the Minister.	Compliant	No issues identified.	
5	The registered holder shall take such precautions as are necessary to abate any dust nuisance and shall comply with any direction given or which may be given in this regard by the Minister.	Not Triggered	Based on the information provided there has been no direction.	
6	The registered holder shall not interfere in any way with any fence on or adjacent to the subject area unless with the consent in writing of the owner thereof.	Not Triggered	Based on the information provided this as not triggered.	
7	The registered holder shall observe any instruction given or which may be given by the Minister with a view to minimising or preventing public inconvenience or damage to public or private property.	Not Triggered	Based on the information provided this as not triggered.	
8	The registered holder shall conduct operations on the subject area in such a manner as to interfere as little as possible with any access to ratepayers properties.	Compliant	No issues identified.	
9	If so directed by the Minister and at any time or times as may be stipulated by the Minister the registered holder shall lodge for the Minister's approval a management plan comprising such details as he may specify including detailed proposals for rehabilitation of the subject area and erosion and pollution control. The Minister may at any time amend any such plan and the registered holder shall conduct operations in accordance with any such management plan as may be approved or amended by the Minister.	Not Triggered	Based on the information provided this as not triggered.	
10	Upon completion of operations on the surface of the subject area or upon the expiry or sooner determination of this lease, or any renewal thereof, the registered holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in clean, tidy and safe condition to the satisfaction of the Minister.	Not Triggered	Final landuse condition.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
11	If so directed by the Minister the registered holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by the operations hereby authorised.	Not Triggered	Based on the information provided this as not triggered.	
12	The registered holder shall maintain the subject area in a clean and tidy condition at all times to the satisfaction of the Minister and shall as far as may be practicable prevent the spread of any oil or other pollutant on the subject area.	Compliant	This ML was in a clean and tidy condition.	
13	The registered holder shall take all precautions against causing outbreak of fire on the subject area and shall comply with any direction, including directions regarding the construction of firebreaks, given or which may be given in this regard by the Minister.	Not Triggered	Based on the information provided this as not triggered.	
14	The registered holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any stream or watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any stream, watercourse or catchment area, or any undue interference to fish or their environment	Compliant	No surface water or major contamination issues identified.	
15	The registered holder shall not cut, damage or interfere in any way with any tree, shrub or other vegetative cover except such as may directly obstruct or prevent the carrying out of the operations.	Not Triggered	Based on the information provided this as not triggered.	
16	All trees, shrubs and other vegetative cover which the registered holder cuts down removes or damages for the purposes of the operations shall be disposed of by the registered holder to the satisfaction of the Minister.	Not Triggered	Based on the information provided this as not triggered.	
17	Operations shall be carried out in such a manner as to interfere as little as possible with natural flora and fauna and the registered holder shall comply with any direction given or which may be given in this regard by the Minister or the Secretary.	Compliant	No specific issues identified.	
18	If directed so to do the Minister the registered holder shall plant such grasses, trees or shrubs or such other vegetation as may be required by the Minister and care for same during the currency of this lease or any renewal thereof, to the satisfaction of the Minister	Not Triggered	Based on the information provided this as not triggered.	
19	If so directed by the Minister the registered holder shall maintain an arboreal screen to the satisfaction of the Minister within that part of the subject area as may be specified by the Minister and if so directed by the Minister the registered holder shall plant such trees or shrubs as may be required by the Minister to preserve any such arboreal screen in a condition satisfactory to the Minister.	Not Triggered	Based on the information provided this as not triggered.	
20	If so directed by the Minister the registered holder shall cover with topsoil, to the Minister's satisfaction, such parts of the subject area as may be stipulated by the Minister and shall plant and maintain, to the Minister's satisfaction, such grasses, trees or shrubs or such other vegetation as may be required by the Minister.	Not Triggered	Based on the information provided this as not triggered.	
21	The registered holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the registered holder shall observe and perform any instruction given or which may be given by the Minister or the Secretary with a view to minimising or preventing soil erosion.	Compliant	No specific issues identified.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
22	The registered holder shall ensure that any topsoil which may be disturbed during operations shall be removed separately for replacement as far as may be practicable.	Compliant	No specific issues identified during this IEA period. Here is a noted lack of topsoil.	
23	In the event of any excavations being made the registered holder shall ensure that such are refilled and the topsoil previously removed is replaced and levelled. All such refilling and levelling shall be done to the satisfaction of the Minister.	Compliant	No specific issues identified during this IEA period. Here is a noted lack of topsoil.	
24	The registered holder shall plant or sow such grasses, shrubs or trees in the replaced surface material as may be considered necessary by the minister to control or prevent erosion.	Not Triggered	Area is active.	
25	The registered holder shall ensure that the run off from any disturbed area including the overflow from any depression or ponded area is discharged in such a manner that it will not cause erosion.	Not Triggered	No evidence of discharge from this lease during the IEA period.	
26	(a) Subject to paragraph (b) of this condition and unless with the consent of the Minister first had and obtained and subject to such conditions as he may impose the registered holder shall not interfere with or impair the stability of any overhead conveyor traversing or adjacent to the subject area. (b) In the event of operations interfering with or impairing the stability of any overhead conveyor traversing or adjacent to the subject area or if required so to do by the Minister the registered holder shall, at his own expense, relocate any such overhead conveyor to the satisfaction of, and in position required by, The Electricity Commission of NSW and the Minister and, if required so to do by the Minister, and subject to such conditions as he may impose, the registered holder upon completion of operations and at his own expense, shall relocate any such overhead conveyor to its original position.	Not Triggered	Based on the information provided this as not triggered.	
27	The registered holder shall ensure that access to any overhead conveyor structures is available at all times to employees of The Electricity Commission of NSW in the performance of their duties.	Compliant	Access is available.	
28	The registered holder shall ensure that road access to two wheel drive standard is available at all times to the Mount Arthur North survey station, and the registered holder shall ensure that such access is available at all times to employees of The Electricity Commission of NSW in performance of their duties.	Compliant	Access is available.	
29	Within a period of three months from the date of lease or a period of three months from the date of service of the notice of renewal, as the case may be, or within such further time as the Secretary may allow the registered holder shall serve on each owner and occupier of the private land and on each occupier of the Crown land held under a pastoral lease within the subject area a notice in writing indicating that the lease has been granted or renewed as the case may be and whether the lease includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area. If there are ten or more owners or occupiers affected the registered holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this lease has been granted or renewed as the case may be; state whether the lease includes the surface and shall contain an adequate plan and description of the subject area.	Not Triggered	Based on the information provided this as not triggered.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
30	<p>(a) where the District Inspector of Coal Mines is of the opinion that any condition of this lease relating to operations within the subject area, or any provision of the Coal Mining Act, 1973, relating to operations within the subject area, is not being complied with by the registered holder he may serve on the registered holder a notice stating that he is of that opinion and giving particulars of the reason why he is of that opinion and may in such notice direct the registered holder: -</p> <p>(i) to cease operations within the subject area in contravention of the that condition or Act; and</p> <p>(ii) to carry out within the specified time works, at the expense of the registered holder, necessary to rectify or remedy the situation.</p> <p>(b) The registered holder shall comply with the directions contained in any notice served pursuant to sub-paragraph (a) of this condition. Provided however that the Chief Inspector Coal Mines may confirm, vary or revoke any such direction.</p> <p>(c) A notice referred to in this condition may be served on the Colliery Manager.</p>	Not Triggered	Based on the information provided this as not triggered.	
Indemnities				
31	The registered holder shall indemnify and keep indemnified the Crown from and against all actions suits and claims and demands of whatsoever nature and all actions suits and claims and demands of whatsoever nature and all costs charges and expenses which may be brought against the registered holder or which the registered holder may incur in respect of any accident or injury to any person or property which may arise out of the construction maintenance or working of any workings now existing or to be made by the registered holder within the boundaries of the subject area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the registered holder or that any such accident or injury shall arise from any act or thing which the registered holder may be licensed or compelled to do hereunder.	Noted		
32	The registered holder shall save harmless the Crown from payment of compensation and from and against all claims, actions, suits or demands whatsoever in the event of any damage resulting from operations under or near the subject area.	Noted		
33 (a)	The registered holder shall, within two (2) months of being required so to do by the Secretary, lodge with the Minister the sum of ten thousand dollars (\$10,000.00) in cash as security for the fulfilment of the obligations of the registered holder fails to fulfil any of his obligations under this lease, the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purposes of this clause a registered user shall be deemed to have failed to fulfil his obligations under this lease, if he fails to comply with any condition or provision of this lease, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision of this lease, or of any provision of the Act or regulations made thereunder.	Compliant	Evidence of bond.	
33 (b)	The registered holder shall subject to the approval of the Minister, be entitled to provide by way of an alternative to the cash security required by subclause (a) hereof, security in the form of an interest bearing deposit in the name of the Minister for Mineral Resources (or such other form of deposit approved by the Minister), banker's certificate or undertaking or bond in such a form and given by such surety as the Minister may approve.	Compliant	Evidence of bond.	
33 (c)	The Minister may at any time or times after the commencement of this lease, or any renewal thereof, vary the amount of security required in accordance with this condition.	Noted		

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
33 (d)	Where the amount of security has been increased pursuant to clause (c) hereof the registered holder shall, within two (2) months of being required so to do by the Minister, lodge a further security in cash or in one of the forms specified in clause (b) hereof in a form and given by a surety approved as may be approved by the Minister for the amount of security required, in which case the Minister shall refund or release to the registered holder the security previously lodged.	Noted		
34 (a)	(a) In the event that the registered holder does not purchase the lands occupied by the Denman-Singleton Pastures Protection Board as an alternative Travelling Stock Reserve, being part Lot 700, parish of Brougham, county of Durham as shown on land of Sub-division, Certificates of Title Vol 10800 Fol 226 and Vol 6984 Fol 34, the registered holder shall, at its own expense and within such time as may be specified by the Minister, provide an alternative Travelling Stock Reserve in a position and to a standard approved by the Minister and the registered holder shall comply with any further direction given by the Minister regarding all alternative Travelling Stock Reserve. (b) Notwithstanding that the registered holder may have complied with the provisions of paragraph (a) of this condition, the registered holder shall not, except with the approval of the Minister first had and obtained and subject to such conditions as he may impose, carry out any operations within any lands occupied by the Denman-Singleton Pastures Protection Board as an alternative Travelling Stock Reserve, within the subject area.	Noted		
35	Spoil dumps shall be graded by the registered holder to form undulating or flat sloping areas, and shall be planted with grass, shrubs or indigenous trees, as directed by the Minister.	Not Triggered	This is a final landuse condition.	
36	Upon completion of operations or the sooner determination of this lease the registered holder shall rehabilitate any areas disturbed to the satisfaction of the Minister.	Not Triggered	This is a final landuse condition.	
37	Any topsoil which may otherwise be buried during the operations shall be removed separately for replacement on the reshaped soil	Not Triggered	This is a final landuse condition. Noted lack of topsoil.	

Mining Lease 1739

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
MINING LEASE CONDITIONS				
Notice to Landholders				
1	<p>(a) Within a period of three months from the date of grant/renewal of this mining lease, the lease holder must serve on each landholder a notice in writing indicating that this mining lease has been granted/renewed and whether the lease includes the surface. A plan identifying each landholder and individual land parcel subject to the lease area, and a description of the lease area must accompany the notice.</p> <p>(b) If there are ten or more landholders, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this mining lease has been granted/renewed; state whether the lease includes the surface and must contain a plan and description of the lease area. If a notice is made under condition 1(b), compliance with condition 1(a) is not required.</p>	Not Triggered	No renewal.	
Rehabilitation				
2	Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.	TBC		
Mining Operations Plan and Annual Rehabilitation Report				
3 (a)	The lease holder must comply with an approved Mining Operations Plan (MOP) in carrying out any significant surface disturbing activities, including mining operations, mining purposes and prospecting. The lease holder must apply to the Minister for approval of a MOP. An approved MOP must be in place prior to commencing any significant surface disturbing activities, including mining operations, mining purposes and prospecting.	Compliant	Activities generally in accordance with the MOP.	
3 (b)	<p>The MOP must identify the post mining land use and set out a detailed rehabilitation strategy which:</p> <p>(i) Identifies areas that will be disturbed;</p> <p>(ii) Details the staging of specific mining operations, mining purposes and prospecting;</p> <p>(iii) Identifies how the mine will be managed and rehabilitated to achieve the post mining land use;</p> <p>(iv) Identifies how mining operations, mining purposes and prospecting will be carried out in order to prevent and or minimise harm to the environment; and</p> <p>(v) Reflects the conditions of approval under</p> <ul style="list-style-type: none"> The Environmental Planning and Assessment Act 1979; The Protection of the Environment Operations Act 1997; and Any other approvals relevant to the development including the conditions of this mining lease. 	Compliant	Activities generally in accordance with the MOP.	
3 (c)	The MOP must be prepared in accordance with the ESG3: Mining Operations Plan (MOP) Guidelines September 2013 published on the Departments website at www.resource.nsw.gov.au/environment	Compliant	Activities generally in accordance with the MOP.	
3 (d)	The lease holder may apply to the Minister to amend an approval MOP at any time.	Compliant	Activities generally in accordance with the MOP.	
3 (e)	<p>It is not a breach of this condition if:</p> <p>(i) The operations which, but for this condition 3(e) would be a breach of condition 3(a), were necessary to comply with a lawful order or direction given under the Environmental Planning and Assessment Act 1979, the Protection of the Environment Operations Act 1997, the Mine Health and Safety Act 2004/Coal Mine Health and Safety Act 2002 and Mine Health and Safety Regulation 2007/Coal Mine Health and Safety Regulation 2006 or the Work Health and Safety Act 2011; and</p> <p>(ii) The Minister had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.</p>	Compliant	Activities generally in accordance with the MOP.	
3 (f)	<p>The lease holder must prepare a Rehabilitation Report to the satisfaction of the Minister. The report must:</p> <p>(i) Provide a detailed review of the progress of rehabilitation against the performance measures and criteria established in the approved MOP;</p> <p>(ii) Be submitted annually on the grant anniversary date (or at such other times as agreed by the Minister); and</p> <p>(iii) Be prepared in accordance with any relevant annual reporting guidelines published on the Department's website at www.resources.nsw.gov.au/environment</p> <p>Note: The Rehabilitation Report replaces the Annual Environmental Management Report.</p>	Compliant	Activities generally in accordance with the MOP.	
Compliance Report				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
4 (a)	The lease holder must submit a Compliance Report to the satisfaction of the Minister. The report must be prepared in accordance with any relevant guidelines or requirements published by the Minister for compliance reporting.	Compliant	Evidence of letter from DPIE RR dated 12 December 2017. This outlines the replacing: <i>These will be replaced with requirements that the titleholder:</i> <i>(a) notify the Resources Regulator of any non-compliance with the conditions of the Mining Lease or the legislation within 7 days of the non-compliance being identified; and</i> <i>(b) provide environmental incident notifications and reports to the Secretary within 7 days of those notification and reports being provided to relevant authorities under environmental legislation.</i> Based on the information provided the site has met this condition in this lease.	
4 (b)	The Compliance Report must include: (i) The extent to which the conditions of this mining lease or any provisions of the Act or the regulations applicable to activities under this mining lease, have or have not been complied with; (ii) Particulars of any non-compliance with any such conditions or provisions, (iii) The reasons for any such non-compliance; (iv) Any action taken, or to be taken, to prevent any recurrence, or to mitigate the effects, of that non-compliance.	Condition Not Applicable		
4 (c)	The Compliance Report must be lodged with the Department annually on the grant anniversary date for the life of this mining lease.	Condition Not Applicable		
4 (d)	In addition to annual lodgement under Condition 4(c) above, a Compliance Report: (i) Must accompany any application to renew this mining lease under the Act (ii) Must accompany any application to transfer this mining lease under the Act; and (iii) Must accompany any application to cancel, or to partially cancel, this mining lease under the Act.	Condition Not Applicable		
4 (e)	Despite the submission of any Compliance Report under (c) or (d) above, the titleholder must lodge a Compliance Report with the Department at any date or dates otherwise required by the Minister.	Condition Not Applicable		
4 (f)	A Compliance Report must be submitted one month prior to the expiry of this mining lease, where the licence holder is not seeking to renew or cancel this mining lease.	Condition Not Applicable		
Environmental Incident Report				
5 (a)	The lease holder must notify the Department of all: (i) Breaches of the conditions of this mining lease or breaches of the Act causing or threatening material harm to the environment; and (ii) Breaches of environmental protection legislation causing or threatening material harm to the environment (as defined in the Protection of the Environment Operations Act 1997), arising in connection with significant surface disturbing activities, including mining operations, mining purposes and prospecting operations, under this mining lease. The notification must be given immediately after the lease holder becomes aware of the breach. Note: Refer to www.resources.nsw.gov.au/environment for notification contact details.	Condition Not Applicable	<u>See comment above about DPIE - RR letter.</u> Based on information provided this was not triggered.	
5 (b)	The lease holder must submit an Environment Incident Report to the Department within seven (7) days of all breaches referred to in condition 5(a)(i) and (ii). The Environmental Incident Report must include: (i) The details of the mining lease; (ii) Contact details for the lease holder; (iii) A map identifying the location of the incident and where material harm to the environment has or is likely to occur; (iv) A description of the nature of the incident or breach, likely causes and consequences; (v) A timetable showing actions taken or planned to address the incident and to prevent future incidents or breaches referred to in 5(a). (vi) A summary of all previous incidents or breaches which have occurred in the previous 12 months relating to significant surface disturbing activities, including mining operations, mining purposes and prospecting operations under this mining lease. Note: The lease holder should have regard to any relevant Director General's guidelines in the preparation of an Environment Incident Report. Refer to www.resources.nsw.gov.au/environment for further details.	Condition Not Applicable		
5 (c)	In addition to the requirements set out in conditions 5(a) and (b), the lease holder must immediately advise the Department of any notification made under section 148 of the Protection of the Environment Operations Act 1997 arising in connection with significant surface disturbing activities including mining operations, mining purposes and prospecting operations, under this mining lease.	Condition Not Applicable		
Group Security				
8	The lease holder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the mining lease, including obligations of all or any kind under the mining lease that may arise in the future. The amount of the security deposit to be provided as a group security has been assessed by the Minister at \$113,520,000. The leases covered by the group security include: Mining Lease 1358, 1487, 1548, 1593 and 1655 (Act 1992). This group security is extended to apply to this lease.	Compliant	Evidence of Rehabilitation bond. Most recent 17 September 2019. Evidence of breakdown by leases.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
Cooperation Agreement				
9	The lease holder must make every reasonable attempt, and be able to demonstrate its attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issues such as: <ul style="list-style-type: none"> • Access arrangements • Operational interaction procedures • Dispute resolution • Information exchange • Well location • Timing of drilling • Potential resource extraction conflicts; and • Rehabilitation issues 	N/A	N/A to the context of this Audit.	
Exploration Reporting				
Note: Exploration Reports (Geological and Geophysical)	The lease holder must lodge reports to the satisfaction of the Minister in accordance with section 163C of the Mining Act 1992 and in accordance with clause 57 of the Mining Regulation 2010. Reports must be prepared in accordance with Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales (Department of Trade and Investment; Regional Infrastructure and Services 2010).	Compliant	Evidence of Exploration Reports. Prepared as per the requirements.	
Special Conditions				
	The standard conditions apply to all mining leases. The Division of Resources and Energy (DRE) reserves the right to impose special conditions, based on individual circumstances, where appropriate.	Noted		

Mining Lease 1757

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
MINING LEASE CONDITIONS				
Notice to Landholders				
1	<p>(a) Within a period of three months from the date of grant/renewal of this mining lease, the lease holder must serve on each landholder a notice in writing indicating that this mining lease has been granted/renewed and whether the lease includes the surface. A plan identifying each landholder and individual land parcel subject to the lease area, and a description of the lease area must accompany the notice.</p> <p>(b) If there are ten or more landholders, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this mining lease has been granted/renewed; state whether the lease includes the surface and must contain a plan and description of the lease area. If a notice is made under condition 1(b), compliance with condition 1(a) is not required.</p>	Not Triggered	No renewal. This lease covers the discharge channel only.	
Rehabilitation				
2	Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.	TBC		
Mining Operations Plan and Annual Rehabilitation Report				
3 (a)	The lease holder must comply with an approved Mining Operations Plan (MOP) in carrying out any significant surface disturbing activities, including mining operations, mining purposes and prospecting. The lease holder must apply to the Minister for approval of a MOP. An approved MOP must be in place prior to commencing any significant surface disturbing activities, including mining operations, mining purposes and prospecting.	Compliant	Activities generally in accordance with the MOP.	
3 (b)	<p>The MOP must identify the post mining land use and set out a detailed which:</p> <p>(i) Identifies areas that will be disturbed;</p> <p>(ii) Details the staging of specific mining operations, mining purposes and prospecting;</p> <p>(iii) Identifies how the mine will be managed and rehabilitated to achieve the post mining land use;</p> <p>(iv) Identifies how mining operations, mining purposes and prospecting will be carried out in order to prevent and or minimise harm to the environment; and</p> <p>(v) Reflects the conditions of approval under:</p> <ul style="list-style-type: none"> The Environmental Planning and Assessment Act 1979 The Protection of the Environment Operations Act 1997; and Any other approvals relevant to the development including the conditions of this mining lease. 	Compliant	Activities generally in accordance with the MOP.	
3 (c)	The MOP must be prepared in accordance with the ESG3: Mining Operations Plan (MOP) Guidelines September 2013 published on the Department's website at www.resourcesandenergy.nsw.gov.au/miners-and-explorers/rules-and-forms/pgf/environmental-guidelines	Compliant	Activities generally in accordance with the MOP.	
3 (d)	The lease holder may apply to the Minister to amend an approved MOP at any time.	Compliant	Activities generally in accordance with the MOP.	
3 (e)	<p>It is not a breach of this condition if:</p> <p>(i) The operations which, but for this condition 3(e) would be a breach of condition 3(a), were necessary to comply with a lawful order or direction given under the Environmental Planning and Assessment Act 1979, the Protection of the Environment Operations Act 1997, the Work Health and Safety (Mines and Petroleum Sites) Act 2013 and Work Health and Safety (Mines and Petroleum Sites) Regulation 2014 or the Work Health and Safety Act 2011; and Work Health and Safety Regulation 2011.</p> <p>(ii) The Minister had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.</p>	Noted		
3 (f)	<p>The lease holder must prepare a Rehabilitation Report to the satisfaction of the Minister. The report must:</p> <p>(i) Provide a detailed review of the progress of rehabilitation against the performance measures and criteria established in the approved MOP;</p> <p>(ii) Be submitted annually on the grant anniversary date (or at such other times as agreed by the Minister); and</p> <p>(iii) Be prepared in accordance with any relevant annual reporting guidelines published on the Department's website at www.resourcesandenergy.nsw.gov.au/miners-and-explorers/rules-and-forms/pgf/environmental-guidelines</p> <p>Note: The Rehabilitation Report replaces the Annual Environmental Management Report.</p>	Compliant	Covered by the Annual Review.	
Compliance Report				

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
4 (a)	The lease holder must submit a Compliance Report to the satisfaction of the Minister. The report must be prepared in accordance with any relevant guidelines or requirements published by the Minister for compliance reporting.	Compliant	Evidence of letter from DPIE RR dated 12 December 2017. This outlines the replacing: <i>These will be replaced with requirements that the titleholder:</i> <i>(a) notify the Resources Regulator of any non-compliance with the conditions of the Mining Lease or the legislation within 7 days of the non-compliance being identified; and</i> <i>(b) provide environmental incident notifications and reports to the Secretary within 7 days of those notification and reports being provided to relevant authorities under environmental legislation.</i> Based on the information provided the site has met this condition in this lease.	
4 (b)	The Compliance Report must include: (i) The extent to which the conditions of this mining lease or any provisions of the Act, the regulations applicable to activities under this mining lease, have or have not been complied with; (ii) Particulars of any non-compliance with any such conditions or provisions; (iii) The reasons for any such non-compliance; (iv) Any action taken, or to be taken, to prevent any recurrence, or to mitigate the effects, of that non-compliance	Condition Not Applicable		
4 (c)	The Compliance Report must be lodged with the Department annually on the grant anniversary date for the life of this mining lease.	Condition Not Applicable		
4 (d)	In addition to annual lodgement under condition 4(c) above, a Compliance Report: (i) Must accompany any application to renew this mining lease under the Act; (ii) Must accompany any application to transfer this mining lease under the Act; and (iii) Must accompany any application to cancel, or to partially cancel, this mining lease under the Act.	Condition Not Applicable		
4 (e)	Despite the submission of any Compliance Report under (c) and (d) above, the titleholder must lodge a Compliance Report with the Department at any date or dates otherwise required by the Minister.	Condition Not Applicable		
4 (f)	A Compliance Report must be submitted one month prior to the expiry of this mining lease, where the licence holder is not seeking to renew or cancel this mining lease.	Condition Not Applicable		
Environmental Incident Report				
5 (a)	The Lease holder must notify the Department of all: (i) Breaches of the conditions of this mining lease or breaches of the Act causing or threatening material harm to the environment; and (ii) Breaches of environmental protection legislation causing or threatening material harm to the environment (as defined in the Protection of the Environment Operations Act 1997), arising in connection with significant surface disturbing activities, including mining operations, mining purposes and prospecting operations, under this mining lease. The notification must be given immediately after the lease holder becomes aware of the breach. Note: Refer to www.resourcesandenergy.nsw.gov.au/miners-and-explorers/rules-and-forms/pgf/environmental-guidelines for notification contact details.	Condition Not Applicable	Based on information provided this was not triggered.	
5 (b)	The lease holder must submit an Environmental Incident Report to the Department within seven (7) days of all breaches referred to in condition 5(a)(i) and (ii). The Environmental Incident Report must include: (i) The details of the mining lease; (ii) Contact details for the lease holder; (iii) A map identifying the location of the incident and where material harm to the environment has or is likely to occur; (iv) A description of the nature of the incident or breach, likely causes and consequences; (v) A timetable showing actions taken or planned to address the incident and to prevent future incidents or breaches referred to in 5(a). (vi) A summary of all previous incidents or breaches which have occurred in the previous 12 months relating to significant surface disturbing activities, including mining operations, mining purposes and prospecting operations under this mining lease Note: The lease holder should have regard to any relevant Secretary's guidelines in the preparation of an Environmental Incident Report. Refer to www.resourcesandenergy.nsw.gov.au/miners-and-explorers/rules-and-forms/pgf/environmental-guidelines for further details.	Condition Not Applicable	Based on information provided this was not triggered.	

Condition Number	Condition	Compliance Status	Evidence Collected	Recommended Action
5 (c)	In addition to the requirements set out in conditions 5(a) and (b), the lease holder must immediately advise the Department of any notification made under Section 148 of the Protection of the Environment Operations Act 1997 arising in connection with significant surface disturbing activities including mining operations, mining purposes and prospecting operations, under this mining lease.	Condition Not Applicable	Based on information provided this was not triggered.	
Group Security				
8	The lease holder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the mining lease, including obligations of all or any kind under the mining lease that may arise in the future. The amount of the security deposit to be provided as a group security has been assessed by the Minister at \$113,520,000. The leases covered by the group security include: Mining Lease 1358, 1487, 1548, 1593, 1655 (Act 1992). This group security is extended to apply to this lease.	Compliant	Evidence of Rehabilitation bond. Most recent 17 September 2019. Evidence of breakdown by leases.	
Cooperation Agreement				
9	The lease holder must make every reasonable attempt, and be able to demonstrate its attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issues such as: <ul style="list-style-type: none"> • Access arrangements • Operational interaction procedures • Dispute resolution • Information exchange • Well location • Timing of drilling • Potential resource extraction conflicts; and • Rehabilitation issues 	N/A	N/A to the context of this Audit.	
Exploration Reporting				
Note: Exploration Reports (Geological and Geophysical)	The lease holder must lodge reports to the satisfaction of the Minister in accordance with section 163C of the Mining Act 1992 and in accordance with clause 59 of the Mining Regulation 2016. Reports must be prepared in accordance with Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales.	Compliant	Evidence of Exploration Reports. Prepared as per the requirements.	



APPENDIX C

Rehabilitation Specialist Report



7 January 2021

Attention: Chris Jones

Dear Chris,

Re: Mount Arthur IEA – Rehabilitation Summary of Recommendations (Version 2)

GENERAL RECOMMENDATIONS

Soil Management

1. Undertake a complete site soil balance. This is urgent and critical to long term rehabilitation planning and future costings.
2. Soil stockpiles should be either nominated as long-term or short-term stockpiles. Long-term stockpiles should be shaped and seeded. Stockpiles were observed to not be shaped or seeded with cover crop or pastures. Soil stockpiles should be sign posted and the locations updated on a GIS based program (created by the soil balance in Point 1). No stockpile signage was observed.
3. Soil stockpiles should be managed for weeds to avoid an increase to the weed seed bank. Stockpile was infested with weeds creating a weed seed bank for future management.

GENERAL OBSERVATIONS

Soil Management

1. Soil was being tested and treated with ameliorants as per recommendations from CPSS Consultant.

Tracks

2. Incorporate access tracks throughout the rehabilitation. This is very important to access the geomorphic landform designs for inspections, monitoring, maintenance and future land uses. This is not a compliance issue however there are many areas reliant on access via active mining areas and tracks.

Rehabilitation Maintenance

3. The rehabilitation management GIS program is commendable and should be continued and expanded to incorporate all related activities past and future.
4. Weed management across site requires a strong focus in seasons such as 2020 and should be flexible to suit the seasonal changes.
5. Continue tree thinning and supplemental plantings of understorey and target overstorey species to track towards closure criteria.
6. Pest animal management should continue, especially for rabbits on the rehabilitation as the burrows pose a high risk to contour bank stability.

Surface Preparation

7. Where required, continue to contour rip the topsoil into the overburden to 'roughen' the surface in order to minimise land slip and sheet erosion. Harrowing the final surface following ripping is a suitable practice.

Rehabilitation Trials

8. Continue the various trials on site (OGM, grazing, ripping and harrowing techniques) as this will provide site-based evidence for future rehabilitation

Yours sincerely,



Clayton Richards

Principal

Mobile: 0408 474 248

E-mail: clayton@minesoils.com.au

Table 1: Recommendations and Observations for Rehabilitation at Mount Arthur

Location (ML)	Rehabilitation Item	Recommendations	Photo Ref
Drayton (CL229)	Topsoil stockpile infested with weeds	Topsoil Stockpile requires treatment for weeds prior to respreading. Recommend herbicide.	2
Saddlers Central Rehabilitation (ML1358)	Drone seeding of 2019 area appears to be a poor result	Monitor this area for new growth. If considered unsuccessful (expected) re-rip, harrow and sow.	6
	2020 Pasture area Some rill erosion on the southern face where varied success of pasture establishment is located.	Inspect rill erosion on this slope and repair (consider contour ripping) if erosion continues to be active. Confirm area of rill erosion is limited to pasture change. Check soil parameters for possible ameliorant application.	10
VD5 (ML1487)	High rate of soil rill erosion and rehabilitation failure.	Repair areas of rehabilitation failure	13 & 14
	Gully erosion down rehabilitated slope from dump crest bund failure.	Repair dump crest bund.	15 & 16
VD1 (ML1487)	Topsoil stockpiles located within close proximity to new rehabilitation areas but no signage present.	Install mobile signage to ensure no contamination with other overburden materials.	21
Location (ML)	Rehabilitation Item	Observations	Photo Ref
Dump 11 (CCL744)	Successful pasture and tree establishment	Exotic pastures and tubestock planting. Minimal weed presence (however exotic pastures may be treated as weeds if woodland communities are desired.)	1
Drayton (CL229)	Organic growth medium trial	Still early in the trial program (2019) however pasture appears to be establishing. Ongoing weed management required.	3
Saddlers Creek Offset (ML1358 & ML 1739)	Areas were very clean with minimal weeds	Continue current management practices on offsets for weed management	4
	Some active gully erosion observed	Monitor active gully erosion in offsets and repair if deemed a high risk of further bank failure.	5
Saddlers Central Rehabilitation (ML1358)	Woodland Area healthy trees with good density and diversity, weed presence and dominant exotic pasture. Large rocks pulled up during ripping.	Monitor and treat weed infestations.	7
	2020 Pasture area appears to have established successfully. Harrowing the surface has provided a good result.	Consider the practicalities of end landuse and farm machinery access.	8 & 9

Saddlers North (ML1358)	Effective ground cover, no major erosion issues observed. Dominant pasture area with isolated trees.	Monitor and treat weed infestations. Monitor for erosion rills and sediment build up in contour drains that may lead to ponding and bank failure.	11
	Topsoil spreading and surface preparation for pasture establishment.	Nil	12
VD1 (ML1487)	Successful tree and pasture establishment. Supplemental plantings in sparse areas and tree thinning in dense areas.	Continue rehabilitation management in line with the GIS based rehabilitation planning program. Ie thinning program, complete re-do of upslope area with incorrect species mix, supplemental plantings/sowing.	17
	Contour drains stabilising with minimal sediment build up or failures observed	Continue monitoring sediment load and tunnelling in contour drains.	18
	New rehabilitation areas under Geomorphic landform design with rock lined drainage paths	Continue to monitor erosion and drainage channel integrity.	19
	Competent rock being stockpiled for use in drainage lines on geomorphic landform designs	Ensure competent and suitable rock is continued to be salvaged for lining drains. Do not sterilise this valuable resource by mixing with other overburden material. Stockpile separately.	20
	Large trees salvaged for use as stag trees and stockpiled near target rehabilitation areas.	Continue to salvage and stockpile suitable stag trees for use in woodland rehabilitation areas.	22
CD1 (ML1487)	Successful tree establishment, may require thinning and understorey supplemental sowing	Manage rehabilitation area maintenance in line with the Rehabilitation GIS program for weed management, thinning, supplemental plantings etc	23
	Drop structure appears stable	Monitor straight line drop structures on site for stability and failure risks.	24
Onsite Offsets (ML1655)	Offsets appear well maintained, very few weeds and healthy vegetation. Recent evidence of weed spraying.	Continue managing all offsets for weeds, erosion, pest animals and supplemental planting to enhance the ecological value.	25
Offsite Offsets	Offsite Offsets well maintained, healthy tubestock supplemental planting	Manage the offsite offsets for weeds where appropriate.	26
All	Human Resources and adequate systems was raised at the last IEA in 2017 and again by the Resources Regulator in 2018. In particular, a lack of personnel dedicated to rehabilitation management.	It was observed during the Audit that the personnel situation has changed since 2017 with the appointment of a dedicate full time Environmental Specialist – Rehabilitation. This provides confidence that the rehabilitation will be a priority discipline at the site and that longer term systems will be implemented for future management.	

REHABILITATION MANAGEMENT PLAN – COMPLIANCE ASSESSMENT

The rehabilitation activities at Mount Arthur were found to be in general accordance with the Rehabilitation Management Plan (RMP). One non-compliance was found with regard to the management of soil stockpiles within the previous RMP:

Section 7.2.3 (of previous RMP) Soil Types and Suitability:

...Topsoil stockpiles shall be:

*Ripped and sown with pasture seed mix (where planned to remain longer than 6 months; and
Inspected periodically and, if required, treated for weed infestation.*

The Audit team has now noted that this commitment is not within the newly approved RMP. Recommendations regarding improvement to topsoil management are included in the earlier section.

The soil stockpile at Drayton (CCL229) was found to be infested with weeds, without treatment and did not appear to have been sown with a pasture seed mix.



Photo 1: Dump 11 (CCL744) Exotic pastures and tree tubestock, minimal weeds



Photo 2: Drayton (CL229) Topsoil stockpile with evidence of weeds – requires treatment.



Photo 3: Drayton (CL229) Organic growth medium (OGM) pasture trial.



Photo 4: Saddlers Creek Offset was very clean (minimal weed presence).



Photo 5: Saddlers Creek Offset - Monitor active gully erosion.



Plate 6: Saddlers Central 2019 drone seeding (possible failure).



Photo 7: Saddlers Central Woodland establishing well and monitor/manage weeds



Photo 8: Saddlers Central 2020 Pasture rehabilitation (harrowed and good strike)



Photo 9: Saddlers Central 2020 Pasture rehabilitation (harrowed and good strike)



Photo 10: Saddlers Central 2020 Rill erosion on upper slope to be inspected and repaired.



Photo 11: Saddlers North Pasture well established, monitor and maintain.



Photo 12: Saddlers North - Removal of existing rehabilitation for future dump space



Photo 13: VD5 Soil surface and rehabilitation failure – implement planned re-rip and sow.



Photo 14: VD5 Soil surface and rehabilitation failure – implement planned re-rip and sow.



Photo 15: VD5 Gully erosion from dump crest bund failure – repair bund and reshape crest.



Photo 16: VD5 Gully erosion from dump crest bund failure – repair, contour rip and re-sow.



Photo 17: VD1 Vegetation success however various areas of maintenance is planned.



Photo 18: VD1 stabilising landform, good ground cover with contour banks stable with minimal sediment build up or failures. Continue to monitor and repair as required.



Photo 19: VD1 Geomorphic landform design being applied on site with rock lined drainage paths.



Photo 20: VD1 Competent rock being stockpiled for use in drainage lines on geomorphic landform designs.



Photo 21: VD1 Topsoil stockpile currently active with minimal storage time.



Photo 22: VD1 Large trees salvaged for use as stag trees and stockpiled near target rehabilitation areas.



Photo 23: CD1 Successful tree establishment, may require thinning and understorey supplemental sowing.



Photo 24: CD1 Drop structure appears stable.



Photo 25: Onsite Offsets (ML1655) well maintained, very few weeds and healthy vegetation.



Photo 26: Offsite Offsets well maintained, healthy tubestock supplemental planting.



APPENDIX D

Groundwater Specialist Report



14/10/2020

Independent Groundwater Audit for Mt Arthur Coal Mine

Report prepared for SLR Pty Ltd

Report No KD2021/02

Katarina David
RPGeo (HYDROGEOLOGY) 10060

DOCUMENT REGISTER

Revision	Status	Date	Comments/Review
A	Draft	14/10/2020	
B	Final		

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1 INTRODUCTION

This Independent groundwater audit was prepared for SLR Pty Ltd who are preparing the 2020 Independent Environmental Audit for the Mt Arthur Coal Mine – Open Cut Consolidation Project in accordance with Schedule 5, Condition 9 of MP09_0062, as modified (the approval).

The review of groundwater conditions and the audit has been prepared in accordance with the requirements of the Modification 1 - Application Number 09_0062 and Mt Arthur 2013 Statement of commitments.

This groundwater specialist audit has focused on site compliance with the approval and covers the following scope:

- Review of existing licences, site water management plan and other available documents
- Preparation of report such that relevant groundwater conditions are assessed in table format.
- Preparation of a brief report with findings and the recommendations.

1.1 Approval requirements and available documents

The requirements related to groundwater were assessed by review of the following documentation:

- Water Management Plan 2020 – draft issued and submitted but not approved , report MAC-ENC-MTP-034
- Water Management Plan 2012 –approved in 2012, report MAC-ENC-MTP-034
- Groundwater monitoring program , 2015- approved, report MAC-ENC-PRO-062
- Surface and Ground Water Response plan, 2015 – approved, MAC-ENC-PRO-063
- Site Water Management Plan , approved in 2012, report MAC-ENC-PRO-034
- Annual Review FY18 -Mt Arthur Coal , amended on 14 December 2018 following DP & E review
- Annual Review FY19 – Mt Arthur Coal, amended on 12 November 2019 following DPIE review
- Annual Review FY20 – Mt Arthur Coal , issued on 25 September 2020

Each of the Annual review documents comprises Annual Groundwater review for years 2017/2018, 2018/2019 and 2019/2020 which was reviewed in detail.

2. REVIEW OF REQUIREMENTS

Each of the requirements have been reviewed and assessed based on the information found in documents listed in Section 1.1. This included Condition 33 and 34 of the Modification 1 and Statement of Commitments 2013.

2.1 Condition 33

Conditions 33 requires the following assessment:

The Groundwater Monitoring Program must include:

- (a) detailed baseline data of groundwater levels, yield and quality in the region, and privately-owned groundwater bores, that could be affected by the project;
- (b) groundwater impact assessment criteria;
- (c) a program to monitor:
 - groundwater inflows to the mining operations;
 - impacts on regional aquifers;
 - impacts on the groundwater supply of potentially affected landowners;
 - impacts on the Hunter River and Saddlers Creek alluvial aquifers; and
 - impacts on any groundwater dependent ecosystems and riparian vegetation;
- (d) procedures for the verification of the groundwater model; and
- (e) reporting procedures for the results of the monitoring program and model verification.

2.2 Condition 34

Conditions 34 requires the following assessment:

The Surface and Ground Water Response Plan must describe the measures and/or procedures that would be implemented to:

- (a) investigate, notify and mitigate any exceedances of the surface water, stream health and groundwater impact assessment criteria;
- (b) compensate landowners of privately-owned land whose water supply is adversely affected by the project, including provision of an alternative supply of water to the affected landowner that is equivalent to the loss attributed to the project;
- (c) minimise, prevent or offset potential groundwater leakage from the Hunter River and Saddlers Creek alluvial aquifers; and
- (d) mitigate and/or offset any adverse impacts on groundwater dependent ecosystems or riparian vegetation.

2.3 Statement of commitments – Environmental Assessment 2013 groundwater

The statement of commitments has three items that require assessment:

- Groundwater monitoring - Groundwater monitoring at the Mt Arthur Coal Mine would continue to be undertaken in accordance with the Ground Water Monitoring Program (BHP Billiton, 2012e). The Ground Water Monitoring Program would be reviewed and, if necessary, revised to incorporate the Modification.

- Impact on Groundwater users-
 - The Surface and Groundwater Response Plan (BHP Billiton, 2012f) would be reviewed and, if necessary, revised to incorporate the Modification. Notwithstanding the negligible effects due to the
 - Modification predicted at surrounding private bores (Appendix B), consistent with the Project Approval for the Mt Arthur Coal Mine – Open Cut Consolidation Project Statement of Commitments:
 - In the event of interruption to water supply resulting from the Project, an alternative water supply will be provided, until such interruption ceases.
 - The process for identifying and compensating the interruption to water supply resulting from Mt Arthur Coal operations would be in accordance with the “protocol for adverse affects to nearby users” outlined in the Surface and Groundwater Response Plan (BHP Billiton, 2012f).and
- Impact on Hunter River Alluvium- In addition, notwithstanding the minor impacts to alluvium associated with the Modification, consistent with the Project Approval for the Mt Arthur Coal Mine – Open Cut Consolidation Project Statement of Commitments:
 - Mt Arthur Coal will continue to monitor hydro-geomorphological conditions and scrutinise for
 - evidence of any groundwater ingress or endwall instability indicators as it progresses the previously approved mining towards the Hunter River Alluvials. Mining (other than that already approved in the MAN [Mt Arthur North] EIS) will not extend beyond a nominal 150 m buffer zone from the Hunter River Alluvials until agreement is reached with DWE
 - regarding the installation of a lower permeability barrier along the point of connections of mining and the alluvium or other appropriate safeguards.

3. REVIEW OF FINDINGS

3.1 Condition 33

Preparation involved review of the following sections of the Groundwater Monitoring Program:

- a) Appendix 1;
- b) Section 2.1;
- c) Section 2 and Appendix 3;
- d) Section 2.1 states - "The groundwater model will be reviewed every five years and, if required, updated and recalibrated to reflect operational or water management changes";
- e) Section 2.3

The following describes how the conditions above were implemented (2017 to 2020) and where conditions were not met:

- Groundwater monitoring program (2015) requires the proponent to monitor water quality every 6 months, for a full suite of metals and major ions and bimonthly and continuously with a

datalogger for almost all bores. Full water quality is reported for a small number of bores only in Annual review FY18, and a lot of bores have been missed. The water monitoring records, both on a two monthly basis and continuous datalogger readings are presented for 4 bores and one VWP only. None of the other hydrographs or results are presented in FY18 and FY19. Annual review FY2019 reports a number of conditions which are not met and discusses the outcome and the reason behind this. Annual report FY20 reports all monitoring both level and quality and presents the results of those. Monitoring is not in compliance with the requirements of Groundwater monitoring program for FY18 and FY19.

- Section 6.2.1 and 6.2.2 of the Review of Groundwater interim monitoring program 2018 recommended revision of water level and quality trigger levels and change in monitoring frequency and sampling points. A number of bores exceeded trigger levels set in the approved GWMP. There is no evidence of the exceedances being reported to DPIE except for the March 2020 monitoring exceedance. This is not in compliance with the requirements of Surface and Groundwater Response Plan.
- Section 3.2 of the 2018/2019 Groundwater annual review uses trigger values in the approved GWMP 2015 and states a number of bores including the ones installed in the alluvium to have exceeded trigger levels for mainly water level and to minor extent for water quality. The recommendations made in the previous report were not fully followed through. The 2018 Groundwater interim monitoring program report states that *new groundwater model is being prepared for trigger level review*, however there is no mention of the outcomes of this report in 2018/2019 Groundwater annual review. Groundwater monitoring protocols and a number of improvements recommended by the consultant were not followed from previous report in 2018.
- Section 11 of the 2019 Annual Review reported that Groundwater monitoring was not undertaken in accordance with the approved Plan. A number of exceedances were reported and details provided. The 2019 Annual Review stated:
 - *Although the FY18 Annual Review stated that groundwater trigger values were revised following the completion of the interim monitoring program and would be applied for the FY19 monitoring period, instead the currently approved GWMP dated 28 April 2015 is applicable for the FY19 monitoring period. The revised trigger values will not be applied until further review and subsequent approval by the DPIE. In anticipation of moving to the revised site Water Management Plan in FY19, Mt Arthur Coal adjusted the sampling frequency to quarterly instead of bi-monthly and also adjusted the sampling requirements at some of the sites as recommended by the independent consultant. This premature implementation of the revised site Water Management Plan resulted in a number of non-compliances with regards to collection of manual water level data and collection of water quality sample data.*

Water level and quality exceedances were reported to DPIE in April 2020 and new Site Water Management plan including the revised Groundwater monitoring program were submitted for approval. The submitted plan was not approved at the time of preparation of this audit.

- Groundwater model verification - New groundwater model update was mentioned in 2018 report and again in 2018/2019 report (consolidated project FY19) but no results of verification were presented in either of the reports. Model verification was undertaken and is reported in Annual review 2020 (Annual groundwater review 2019/2020). There were no model updates since the issue of the EA in 2013, therefore it has been over 5 years since the groundwater model was verified.

- Program to monitor groundwater inflow and impacts to groundwater inflow- GMP 2015 states that *as no measurement of volumes can be taken, the modelled values are considered most appropriate method of estimates of groundwater inflow, unless the trigger values are exceeded*. Given that trigger values were exceeded in 2018 and 2019 the impacts would also need to have been assessed. This is not mentioned in the Annual review FY19 but is discussed in Annual review FY20. The updated model reports overestimated water levels in Saddlers Creek alluvium compared to observed with an average of just under 5 m. Current trigger values (based on the approved GWMP) are exceeded for Saddlers Creek and therefore the model can not be used to estimate the inflow.
- Impacts on the groundwater supply of potentially affected landowners - Annual reviews FY18 and FY19 do not mention the impacts on groundwater supply to private landholders. Annual review FY20 indicates that the *'alluvial monitoring shows no adverse impact on the alluvial groundwater conditions and beneficial use of groundwater'*.

3.2 Condition 34

Preparation involved review of the following sections of the Surface and Groundwater response plan:

- a) Section 2.1 outlines the exceedance protocol;
- b) Section 2.3 outlines management of nearby users
- c) Section 2.4 outlines management of aquifer leakage;
- d) The Stream health protocol provides information of managing impacts to riparian vegetation;

The following describes how the conditions above are implemented and where conditions are not met:

- Reporting of the exceedance of trigger levels is given in Annual Review FY18, FY19 and FY20 as per the Surface and Groundwater Response Plan. No communication with DPI was sighted except reported trigger level exceedance in 2020.
- There is no discussion on the compensation of landholder bores or impact on those bores in the Annual review FY18, FY19 and FY20.
- Groundwater monitoring relating to leakage from alluvium and the effectiveness of cutoff are discussed in Annual report 2019 and 2020 indicating it was performing satisfactorily.
- No GDEs were identified therefore no impact can be assessed.

3.3 Statement of commitments as per the Environmental Assessment 2013

Groundwater monitoring (Annual report FY2019) was not undertaken following the recommendations in the GWMP 2015, rather it followed the revised monitoring and trigger levels recommended in interim monitoring program (2018/2019 Annual monitoring review) suggesting a number of changes. This resulted in non-compliances in monitoring frequency which changed to quarterly instead of two monthly, water quality data not being collected for required sites and reducing the number of water quality sampling events.

Groundwater monitoring (annual report FY2020) followed recommendations in the GWMP 2015. Revised Site Water Management Plan with revised Groundwater monitoring plan was submitted to DPI in 2020 for comment.

No review of Surface and Groundwater Response plan is proposed in any of the annual reviews. There is no discussion in the annual reports relating to private bores and potential interruption to water supply resulting from Mt Arthur operation, apart from report FY20 which mentions '*no impacts on beneficial use of water*'.

Annual review FY2019 and FY2020 has assessed the hydro-geomorphological conditions related to cutoff wall. These reports state that:

'depressurisation observed in the underlying Permian coal seam has not significantly impacted upon groundwater levels within the alluvium and the alluvial monitoring shows no adverse impact on the alluvial groundwater conditions and beneficial use of groundwater'

The groundwater model has been verified as reported in Annual report FY2020. Comparison of observed data with the model prediction indicated that model overpredicted groundwater levels compared to observed data in Saddlers Creek alluvium by an average of 5 m. While the Annual report FY2020 states that *the model also replicates well the water level for bores within the Saddlers Creek Alluvium to the south west of pit*, this difference needs to be investigated such that the hydro-geomorphological conditions can be assessed more accurately.

4. RECOMMENDATIONS

The following are the recommendations based on the review of relevant conditions:

- Mt Arthur needs to have the Site water management plan and the GWMP (submitted in 2020) approved by DPIE and undertake any further monitoring considering these approved documents.
- There are a number of monitoring protocols and procedures which have not been followed in spite of those being recommended in annual review FY18 and FY19. It is recommended that quality control for groundwater data is improved.
- Groundwater monitoring results need to be presented in the annual review for each year such that hydrographs are presented for each bore along with data reported for groundwater quality.
- A number of exceedances that are reported for Hunter River and Saddlers Creek alluvium in FY20 need to be investigated.
- Groundwater inflow has not been assessed (by physical means) although the trigger levels were exceeded. Given that 2013 EA predicted total inflow of over 2 ML/day for the duration of the project, it is recommended that this inflow volume be monitored. If it is not possible to monitor the groundwater inflow, then groundwater model needs to be verified as current predictions indicate around 5 m difference from observed head in Saddlers Creek.
- Annual reporting needs to discuss the private bore monitoring results (if any) and the impact of project on private bores.
- Record of DPIE notification in the event of exceedance needs to be provided in accordance with the Surface water and groundwater response plan.

- GWMP need to have all baseline groundwater quality parameters presented in tabulated and/or graphed form, at present only EC and pH are presented. These parameters are collected as part of the monitoring suite and baseline data are required for later comparison.
- The difference between the observed levels and predicted groundwater levels in Saddlers creek needs to be investigated such that the hydro-geomorphological conditions can be assessed more accurately.

LIMITATIONS

K. David has prepared this groundwater independent audit report for the use of SLR in accordance with the standard terms and conditions of the consulting profession. This report is prepared in accordance with the agreed scope of work. The methodology adopted and sources of information used are outlined in the report.


The report was prepared during September/October 2020 and is based on the information reviewed at the time of preparation. The report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose by third parties.



APPENDIX E

IEA Certification Form



Development Name	Mount Arthur Coal Mine
Development Consent No.	Project Approval 09_0062
Description of Development	Open Cut Coal Mine
Development Address	Off Thomas Mitchell Drive
Operator	Hunter Valley Energy Coal Pty Ltd
Operator Address	PO Box 351 Muswellbrook, NSW
Title of Audit	Mount Arthur Coal Mine Independent Environmental Audit 2020
Audit Period	1 July 2017 to 30 June 2020
<p><i>I certify that I have undertaken the independent Audit and prepared the contents of the attached independent Audit report and to the best of my knowledge:</i></p> <p><i>The Audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the Auditing standard AS/NZS ISO 19011:2014 and Post Approval Guidelines – Independent Audits</i></p> <p><i>The findings of the Audit are reported truthfully, accurately and completely;</i></p> <p><i>I have exercised due diligence and professional judgement in conducting the Audit;</i></p> <p><i>I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the Audit;</i></p> <p><i>I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the Audit, spouse, partner, sibling, parent, or child;</i></p> <p><i>I do not have any pecuniary interest in the Audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family);</i></p> <p><i>Neither I nor my employer have provided consultancy services for the Audited development that were subject to this Audit except as otherwise declared to the lead regulator prior to the Audit; and</i></p> <p><i>I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.</i></p> <p><i>Note.</i></p> <p><i>The Independent Audit is an ‘environmental Audit’ for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an Audit report produced to the Minister in connection with an environmental Audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p><i>The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Signature	
Name of Lead / Principal Auditor	Chris Jones
Address	51 Hudson Street Hamilton 2303
Email Address	chris.jones@iema.com.au
Audit or Certification (if relevant)	Principal Environmental Auditor
Date:	21 January 2021



APPENDIX F

Endorsement of the IEA Team





Lisa Richards
Environmental Specialist
Hunter Valley Energy Coal Pty Ltd
Thomas Mitchell Drive
Muswellbrook, NSW, 2333

By email only: lisa.richards@bhp.com

12/06/2020

Dear Ms Richards

**Mt Arthur Coal Mine – Open Cut Consolidation Project (MP09_0062)
Independent Environmental Audit – Auditor Endorsement Request**

I refer to your request (MP09_0062-PA-16) for the Secretary of the Department of Planning, Industry and Environment (the Department) endorsement of a suitably qualified, experienced and independent team of experts to undertake the 2020 Independent Environmental Audit for the Mt Arthur Coal Mine – Open Cut Consolidation Project in accordance with Schedule 5, Condition 9 of MP09_0062, as modified (the approval).

The Department has reviewed the information provided in accordance with the requirements of the approval and the Department's Post-approval requirements for State Significant Developments Independent Audit Guideline, October 2015 (IEA Guideline) subsequently endorses the following audit team:

- Mr Chris Jones (Lead Environmental Auditor and Surface Water Specialist);
- Mr Nathan Archer (Assistant Environmental Auditor and Noise and Blasting Specialist);
- Mr Ali Naghizadeh (Air Quality Specialist);
- Ms Katarina David (Ground Water Specialist); and
- Mr Clayton Richards (Rehabilitation Specialist).

The IEA must be prepared, undertaken and finalised in accordance with the requirements of the approval and the IEA Guideline. Failure to meet these requirements will require revision and resubmission.

The audit team must consult with relevant agencies and the Community Consultative Committee prior to the site inspection to ascertain any aspects that they wish the IEA to address. Evidence of consultation and clear referencing to audit findings in relation to any request is to be provided in the IEA report.

As per Schedule 5 condition 10 of the approval, within 6 weeks of completion of the audit, or as otherwise agreed by the Secretary, the IEA report together with the response to audit recommendations (RAR) must be submitted to the Department (via the Major Project website). Please ensure that the RAR includes responses to all non-compliances and auditor recommendations with clear timeframes (dd-mm-yyyy) for implementation of the proposed corrective action.

Finally, please ensure this correspondence is appended to the IEA Report.

If you wish to discuss the matter further, please contact Joel Curran on (02) 4904 2702 or compliance@planning.nsw.gov.au

Yours sincerely

A handwritten signature in black ink that reads "H Watters". The signature is written in a cursive, flowing style.

Heidi Watters
Team Leader Northern
Compliance

As nominee of the Planning Secretary



Lisa Richards
Specialist Environment – Business Partnership
Mt Arthur Coal
Hunter Valley Energy Coal Pty Ltd
Muswellbrook NSW 2333

06/07/2020

Dear Ms Richards

**Mt Arthur Coal Mine – Open Cut Consolidation Project (MP09_0062)
Independent Environmental Audit 2020 – submission extension request**

Reference is made to your request (MP09_0062_PA-62) for an extension of time to submit the Independent Environmental Audit (IEA) 2020 and Response to Auditor Recommendations (RAR) as required under Schedule 5, condition 10 of MP09_0062 (the approval).

The Department has considered the request for an extension to the submission date of the IEA and RAR 2020, and accordingly, the Planning Secretary has agreed to a revised submission date of 12 weeks from the date of completion of the audit. Note that the completion date of the audit is the last day of the site audit component of the IEA.

If you wish to discuss the matter further, please contact Joel Curran, Senior Compliance Officer on (02) 4904 2702 or compliance@planning.nsw.gov.au

Yours sincerely

A handwritten signature in black ink that reads 'H Watters'.

Heidi Watters
Team Leader Northern
Compliance

As nominee of the Planning Secretary



Lisa Richards
Specialist Environment – Business Partnership

By email only: lisa.richards@bhp.com

15/12/2020

Dear Miss Richards

**Mt Arthur Coal - Open Cut Extension (MP09_0062)
Independent Environmental Audit 2020 – submission extension request**

Reference is made to your request (MP09_0062-PA-79) for an extension of time to submit the Mt Arthur Coal Mine – Open Cut Extension, Independent Environmental Audit (IEA) 2020 report and Response to Audit Recommendations (RAR) as required under the Schedule 5, Condition 9 of MP09_0062 as modified (the approval).

The Department notes the due date for submission of the IEA 2020 and RAR (30 December 2020) falls within the Christmas and New Year's period, affecting staff availability to complete both documents.

In accordance with Schedule 5, Condition 9 of the approval, the Planning Secretary has granted an extension of time to 22 January 2021 to submit the IEA 2020 and RAR.

If you wish to discuss the matter further, please contact Joel Curran, Senior Compliance Officer on (02) 4904 2702.

Yours sincerely

A handwritten signature in black ink that reads 'H Watters'.

Heidi Watters
Team Leader Northern
Compliance

As nominee of the Planning Secretary