



Baal Bone 2013 Independent Environmental Audit



For: Glencore
FEBRUARY 24, 2014

Project Name:	Baal Bone Colliery
Project Number:	30017904
Report for:	Glencore

PREPARATION, REVIEW AND AUTHORISATION

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EXECUTIVE SUMMARY

SMEC Australia Pty Ltd has been engaged by The Wallerawang Collieries Ltd to conduct the Independent Environmental Audit for Baal Bone Colliery in accordance with the Project Approval 09-0178.

This audit was completed generally in compliance with AS/NZS ISO 19011:2003 – Guidelines for quality and/or environmental management systems auditing.

This audit covers the period between 8 December 2011 and 18 December 2013, and includes:

- Findings on Baal Bone Colliery's (Baal Bone) compliance with the conditions of Project Approval 09-0178, its Environmental Protection Licence 765, and other relevant licences, approvals and supporting documents such as environmental management plans (Section 4);
- An review of Baal Bone's environmental management performance and environmental management plans at Baal Bone Colliery (Section 5); and
- Recommendations from the findings of the audit (Section 6).

This audit was conducted by Peter Horn and Lachlan Edwards and consisted of:

- a detailed desktop review of site documentation;
- a site visit of Baal Bone Colliery including interviews with Baal Bone staff; and
- desktop reviews following the site inspection.

One thousand one hundred and fifty four (1,156) points of compliance were assessed in this IEA resulting in the identification of 34 environmental issues and 33 administrative omissions. 62 non-compliances were detected with many relating to the same issue due to the repetition of commitments between consent documents and management plans. Compliance with the recommendations of the previous IEA (URS, 2011) was also assessed with 24 non-compliances (one of which was an administrative omission). During the audit, Baal Bone staff were made aware of any significant non-compliances encountered that required urgent attention.

Baal Bone Colliery has in place an environmental management system that is generally be in accordance with AS/NZ ISO 14001:2004: Environmental management systems – Requirements with guidance for use (independently audited).

Currently, Baal Bone Colliery is in a “Suspended Operations” phase where the site infrastructure is mothballed and site personnel are quite low in number. The site has no operational activity at present so environmental risk is limited in comparison to when the site was operational. Consequently there are not a lot of impacts to air quality and noise and there have been no community complaints in the audit period.

Staff are committed and enthusiastic considering they operate with (understandably) limited resources and the majority of staff work part time making the task of ensuring the documentation (designed for an operational mine) to maintain compliance more of a challenge.

The recommendations in Section 6 are focused on the documentation required to maintain compliance with approvals, licenses and permits, general environmental improvement and ensuring the rehabilitation progress to closure is not compromised by the cessation of operations.

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GLOSSARY

Abbreviation	Meaning
ACHMP	Archaeology and Cultural Heritage Management Plan
AER	Annual Environmental Report
AEMR	Annual Environmental Management Report
AQMP	Air Quality Monitoring Program
BBC	Baal Bone Colliery
BBCMP	Baal Bone Creek Management Plan
BLMP	Biodiversity and Land Management Plan
DG	Director General
DP&I	Department of Planning and Infrastructure
DTIRIS DRE Minerals	Department of Trade & Investment, Regional Infrastructure Services, Division of Resource and Energy – Mineral resources
EA	Environmental Assessment
ECO	Environment & Community Officer
ECRA	Environment and Community Risk Assessment
EMS	Environmental Management Strategy
EPA	Environment Protection Authority
EPL	Environment Protection License
ESCMP	Erosion and Sediment Control Management Plan
GWMP	Groundwater Monitoring Program
HSEC	Health Safety Environment Community
IEA	Independent Environmental Audit
MOP	Mining Operations Plan
NMP	Noise Management Plan
NoW	NSW Office of Water
PA	Project Approval
SMEC	Snowy Mountains Engineering Corporation

Abbreviation	Meaning
SoC	Statement of Commitments (from EA)
SWGWRP	Surface Water and Groundwater Response Plan
SWMP	Surface Water Monitoring Program
WMP	Water Management Plan
XSD	Xstrata Sustainable Development

1 INTRODUCTION

1.1 Background

SMEC Australia Pty Ltd has been engaged by The Wallerawang Collieries Ltd to conduct the Independent Environmental Audit (IEA) for Baal Bone Colliery (Baal Bone) in accordance with the Project Approval 09-0178.

The audit was designed and conducted to satisfy the planning approval conditions for Baal Bone Colliery and focused on the site's compliance with licences, approvals and supporting documents including management plans. This audit period is 8 December 2011 (date of the last IEA) to 18 December 2013. The previous IEA was conducted by URS 12 months after the Project Approval was issued.

1.2 Site Description

Baal Bone is an underground and (previously) open cut coal operation located near Cullen Bullen, approximately 25 km north-north west of Lithgow in the Local Government Area of Lithgow. The mine is now on a 'suspended operations' basis and produces no product coal. The Mine is owned and was operated by The Wallerawang Collieries Ltd (a subsidiary of Glencore). Mining operations were based on a coal reserve that was first exploited in the 1940s and is now close to mined out. The seam mined is the Lithgow Coal Seam in the Illawarra Coal Measures.

Project Approval (09-0178) was granted on 14 January 2011 to continue operations at the site and bring the site under the Part 3A planning process, the site had operated on a Project Approval issued in 1982. The Project Approval allows for the extraction of up to 2.8 million tonnes per annum of run of mine (ROM) coal until 31 December 2014.

On the 3 September 2011, coal mining was suspended at Baal Bone following the completion of Longwall 31 (LW31). The Coal Handling and Preparation Plant (CHPP) continued operating until Run of Mine (ROM) coal reserves were exhausted in December 2011 and transport of product coal by rail continued until 25 April 2012.

Operations at the site while it is in "Suspended Operations" include:

- Environmental monitoring and management;
- Some training of new underground mining employees for Glencore (though this has slowed since the recent coal market slump);
- The maintenance of essential equipment associated with ventilation, pit electricity, pit dewatering and pit top infrastructure;
- A skeleton workforce to conduct the maintenance and keep the site in order and in compliance with regulatory requirements;
- Ongoing Rehabilitation (though reduced due to lack of further disturbance from mining operations and budget);
- Rehabilitation of subsidence impacts though these are nearly completed as the subsidence process draws to a close; and
- The removal and storage/reuse/recycling of unnecessary equipment at the site.

Baal Bone holds Environmental Protection Licence (EPL) 765 for the operation under the Protection of the Environment Operations Act 1997.

1.3 Scope Of Work

This IEA has been prepared to satisfy Conditions 7 and 8, Schedule 5 of Project Approval 09_0178. Table 1 lists the requirements of this condition and shows where each are located in this IEA report.

Table 1 Audit Compliance with DA

Condition	Requirement	Location in this report
7	By 31 December 2011, and every 2 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission at its own cost an Independent Environmental Audit of the project. This audit must:	This Audit
7(a)	be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General	Section 1.4
7(b)	include consultation with the relevant agencies	Section 2
7i	assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals)	Section 4
7(d)	review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate	Section 5
7l	recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals	Section 6
7(f)	be completed within 2 months of the approval of the audit team	Audit team approved 4-11-13, audit conducted 18-12-13
Note	This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Director-General.	Section 1.4
8	Within 6 weeks of the completing of this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report	Noted

1.4 Audit Approach

This IEA was undertaken generally in accordance with AS/NZS ISO 19011:2003 – Guidelines for quality and/or environmental management systems auditing by the following SMEC staff:

- Peter Horn (Environmental Site Services Manager) – Lead Auditor;
- Lachlan Edwards (Environmental Engineering Intern) – Audit Assistant; and
- Joy Duncan (Technical Principal - Environment) – Peer Review.

The audit team were approved by DP&I's Manager Mining Projects (on 4 November 2013) prior to conducting the audit (appended as Appendix A).

This IEA consisted of a detailed desktop review of documents supporting compliance, interviews with Baal Bone staff and a site inspection of Baal Bone Colliery from 16 to 18 December 2013. Interviewees included:

- Nicole Van den Berg – Environment and Community Officer;
- Mark Bulkeley – Operations Manager;
- Gary Linford – Under Manager in Charge;
- David Marsland – Manager of Mechanical; and
- Carla Tierney – Commercial Manager.

Site opening and closing meetings were held with the site Environment and Community Officer and Operations Manager in attendance with the audit team. The opening meeting discussed the approach and process while the closing meeting covered the findings to that point and the audit teams general impressions of the sites management.

The environmental conditions at the time of the audit were warm with daytime temperatures in the high 20's and minimums between 10 and 14°C. There was no rain during the audit and none for the 10 days preceding the audit.

1.4.1 Limitations Of The Audit

The SMEC auditors received cooperation from all Baal Bone staff during the IEA. However, the following issues arose during the IEA, which limited to some extent, its findings:

- Opinions of the auditor in this report apply to the site's conditions and features as they existed at the time of SMEC's site visit on 16 to 18 December 2013 and those reasonably foreseeable or recorded in the reviewed site documentation. They do not apply to conditions and features which the auditor is unaware of and has not had the opportunity to evaluate;
- The conclusions presented in this report are professional opinions based solely on SMEC's observations of the site and the immediate vicinity, and on SMEC's analysis of the documentation reviewed and interviews with personnel knowledgeable about the site as referenced in this report. The conclusions are intended exclusively for the purpose stated, at Baal Bone site, and for the project indicated; and
- This report does not, and does not purport to, give legal advice on the actual or potential environmental liabilities of any individual or organisation, or to draw conclusions as to whether any particular circumstances constitute a breach of relevant legislation.

1.5 Report Structure

This report is structured as follows:

Executive Summary

Section 1.0 provides an introduction, background, description and layout of Baal Bone Colliery, describes the requirements for the IEA and provides a guide to the structure of the report.

Section 2.0 discusses consultation with the relevant departments.

Section 3.0 lists the planning approvals in place at Baal Bone Colliery, provides a description of each and confirms those which have been the subject of this IEA.

Section 4.0 provides a discussion of non-compliances against the project approval, licences, permits and supporting documents.

Section 5.0 provides a review of the adequacy of the environmental management at the site both documented and observed

Section 6.0 provides recommendations for measures or actions to improve the environmental performance of Baal Bone.

2 CONSULTATION

The audit team consulted the NSW Environment Protection Authority (EPA) and Department of Trade, Investment and Regional Infrastructure Services – Division of Resources and Energy – Minerals (DTIRIS DRE Minerals) for input into the audit. DP&I provided comment during the Audit Team approval process. Given that the site is in a suspended operations phase with impacts minimised, other agencies were not contacted.

The response from the EPA came from the Regional Operations Officer - Central West via an email to the Lead Auditor on 20 December 2013. The comment relevant to the audit comprised:

“The only issue we (EPA) have had with Baal Bone has been groundwater pumped to the surface and then discharged via one of two surface water discharge points on their premises (near Ben Bullen State Forest). We were at Baal Bone to turn these pumps off given that they have exhausted their approved coal resource with little chance of operations continuing under a new consent and there was no reason to discharge this water. Baal Bone stated that they wanted to retain the ability to pump groundwater given that the mine is used for training purposes and they need to keep access open (and other reasons). We settled on a compromise position of piping this mine water and discharging it in to the pit top dirty water system and eventual discharge via an existing surface water discharge point in to Jews Creek.

There are no other issues with this site – particularly considering that it has been under care and maintenance for a few years. Baal Bone recently requested a variation to their licence to remove a deposited dust monitoring location which has proven difficult to access on occasion (to exchange the sample bottle). We are currently considering this request.”

These comments were noted and followed up throughout the documentation review of the site. They did not result in any additional adverse findings.

The response from DTIRIS DRE Minerals came from a Regional Operations Officer from Wollongong on 19 December 2013. The officer noted that the department had “few concerns” with Baal Bone Colliery and requested a copy of the findings when the audit was completed.

The comments were noted.

3 DOCUMENTS AUDITED

Table 2 lists the documents reviewed for compliance in this IEA are along with where each is addressed in the report. There were many other documents reviewed by the audit team as evidence or supporting information that are not listed here.

Table 2

Document	Location in Report
Project Approval 09-0178	S 4.2 pg 14
EA – <i>Continuation of Operations, Baal Bone Colliery</i> , AECOM March 2010 Statement of Commitments	S 4.3 pg 16
EPL 765	S 4.4 pg 17
Mining Leases	S 4.5 pg 18
<i>Environmental Management Strategy</i> , July 2012, Xstrata Coal, The Wallerawang Collieries Ltd	S 4.6 pg 19
<i>Air Quality Monitoring Program</i> , July 2012, Xstrata Coal, The Wallerawang Collieries Ltd	S 4.7 pg 19
<i>Archaeology and Cultural Heritage Management Plan</i> , July 2012, Xstrata Coal, The Wallerawang Collieries Ltd	S 4.8 pg 21
<i>Biodiversity and Land Management Plan</i> , May 2013, Xstrata Coal, The Wallerawang Collieries Ltd	S 4.9 pg 21
<i>Noise Management Plan</i> , July 2012, Xstrata Coal, The Wallerawang Collieries Ltd	S 4.10 pg 22
<i>Subsidence Management Plan, Baal Bone Colliery, Longwall LW29 – LW31, Lithgow Seam</i> , May 2007, Xstrata Coal, The Wallerawang Collieries Ltd (sub plans follow)	S 4.11 pg 24
<i>Water Make Plan</i> , October 2007, Xstrata Coal, The Wallerawang Collieries Ltd	S 4.12 pg 24
<i>Land Management Plan, Rev 2</i> June 2009, Xstrata Coal, The Wallerawang Collieries Ltd	S 4.13 pg 24
<i>Public Safety Management Plan</i> , May 2009, Xstrata Coal, The Wallerawang Collieries Ltd	S 4.14 pg 24
<i>Protection of Wolgan Escarpment from Longwall 31 Mining Subsidence</i> , December 2008, Ken Mills, Strata Control Technology Operations	S 4.15 pg 25
<i>Environmental Monitoring Program</i> (from SMP 2009), Xstrata Coal, The Wallerawang Collieries Ltd	S 4.16 pg 25
<i>Water Management Plan</i> , September 2012, Xstrata Coal, The Wallerawang	S 4.17 pg 25

Document	Location in Report
Collieries Ltd (sub-plans follow)	
<i>Surface Water Monitoring Program</i> , September 2012, Xstrata Coal, The Wallerawang Collieries Ltd	S 4.18 pg 26
<i>Groundwater Monitoring Program</i> , September 2012, Xstrata Coal, The Wallerawang Collieries Ltd	S 4.19 pg 28
<i>Erosion and Sediment Control Management Plan</i> , September 2012, Xstrata Coal, The Wallerawang Collieries Ltd	S 4.20 pg 29
<i>Surface Water and Ground Water Response Plan</i> , September 2012, Xstrata Coal, The Wallerawang Collieries Ltd	S 4.21 pg 30
<i>Waste Management Plan</i> , Xstrata Coal, The Wallerawang Collieries Ltd	S 4.22 pg 30
<i>Mining Operations Plan, Baal Bone Suspension of Mining Operations (to 2012)</i> , The Wallerawang Collieries Ltd	S 4.23 pg 31
<i>Mining Operations Plan , Baal Bone Suspension of Mining Operations (revised 2013 – not yet approved)</i> ,The Wallerawang Collieries Ltd	S 4.24 pg 32
<i>Pollution Incident Response Management Plan</i> , Glencore 2012	S 4.25 pg 32
Water Licenses	S 4.26 pg 32
<i>Baal Bone Colliery Independent Environmental Audit</i> , URS 2011	S 4.27 pg 32

Table 3 shows the relevant approvals, Licences and permits currently held by Baal Bone Colliery.

Table 3 Baal Bone Approvals

Approval	Regulator	Expiry Dates
Project Approval 09-0178	DP&I	31 December 2014
EPL 765	EPA	Annual Renewal Date 8-2-14
Mining Lease CCL 749	DTIRIS DRE Minerals	Various
Mining Lease MPL 261	DTIRIS DRE Minerals	
Mining Lease CL 391	DTIRIS DRE Minerals	
Mining Lease ML 1302	DTIRIS DRE Minerals	
Mining Lease ML 1389	DTIRIS DRE Minerals	
Mining Lease ML 1607	DTIRIS DRE Minerals	
Dangerous Goods Notification 35/023231	WorkCover NSW	27-9-14

Approval	Regulator	Expiry Dates
Water Access Licence WAL 27887	NoW	No Expiry
Bore Licence 80BL236132	NoW	Various
Bore Licence 80BL236134	NoW	
Bore Licence 80BL239077	NoW	
Bore Licence 10BL601877	NoW	
Bore Licence 10BL601816	NoW	
Bore Licence 10BL601817	NoW	
Bore Licence 10BL6011970	NoW	

4 ENVIRONMENTAL COMPLIANCE

Baal Bone is required to “commission and pay the full cost of an Independent Environmental Audit of the project” under Condition 7, Schedule 5 of Project Approval 09-0178. Subclause 7 c) states that the audit will “assess the environmental performance of the project and assess whether it is complying with the relevant requirements of this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals)”

In the assessment of compliance, the status of each condition is described as:

- Complies;
- Not Compliant; or
- Not Triggered (used where conditions have not yet been activated (due to activities not being commenced or requests not being made for example) or where the actions required were prior to the audit period and administrative.

A total of 1,156 conditions and commitments were assessed as part of this audit. 34 issues resulted in 63 non-compliances. 34 of the non-compliances were administrative (that is, the issue was caused by not submitting a document or keeping a document on file, not by the omission of an action or measurement). Many of the non-compliances noted in this audit relate to the same issue which, due to the duplication of commitments between consent documents and management plans, raise the same non-compliance several times. These numbers do not include the assessment of compliance with recommendations from the previous IEA (URS 2011), these issues are addressed separately in Section 4.27 .

4.1 Issues Causing Non-Compliance

Each non-compliance was caused by an action, omission or event. These combined constitute the issues that the site needs to address to achieve compliance. For this reason, the issues are extracted from the non-compliances so they will be more readily addressed by Baal Bone.

The issues identified in this audit and the associated non-compliances are presented in **Table 4**. Acronyms referred to in **Table 4** can be found in the Glossary at the start of this report.

Table 4 Issues Identified

Issue	Non-compliances
The DG did not approve the surrender of the existing consents within 12 months.	DA – Sch 2 – C 9
Air Quality Program not developed by a suitably qualified expert approved by the DG.	DA – Sch 3 – C 12 AQMP 3.1 b)
Air Quality Results not reported to internal management monthly.	AQMP 4.6.1
On several occasions, dust gauges were not collected within the required time period.	EA SoC 25 EPL M2.2
Water discharges from the site exceeded the EPL Guidelines.	DA – Sch 3 – C 14

Issue	Non-compliances
	EPL L2.1
Baseline surface water data not provided for Cox's River in the Surface Water Monitoring Program.	DA – Sch 3 – C 20
Groundwater baseline data presented in the Groundwater Monitoring Plan does not include groundwater yields.	DA – Sch 3 – C 21 GWMP 2.1
Biennial validation of Groundwater Model for the project has not been done.	GWMP 4.2.1
Measures/procedures to mitigate riparian vegetation impacts not described in the Surface and Groundwater Response Plan.	DA – Sch 3 – C 22
Lack of access to a water monitoring site prevented sampling at the correct location.	EPL M2.3
The 2012 AEMR does not include a review of the Water Balance.	WMP 4.10.6 WMP 5.5.5 SWMP 6.4 GWMP 4.2.5 GWMP 4.2.5 SWGMP 3.4
The 2012 AEMR does not report stream health or channel stability results.	WMP 5.5.5 GWMP 4.2.5 SWGWRP 3.4
The WMP is not on the Baal Bone website.	WMP 6 SWMP 7 GWMP 5 ESCMP 6 SWGWRP 4
No channel stability monitoring undertaken.	SWMP 4.5 SWMP 5.2.2 SWMP 6.4
Stream health monitoring not undertaken for Cox's River, Baal Bone Creek and Jews Creek.	SWMP 4.6 SWMP 5.2.2 SWMP 6.4
The MOP/Remediation Management Plan does not reference Regional Planning Strategies.	DA – Sch 3 – C 25
No evidence that the Environmental Management Strategy was	DA – Sch 5 – C 1

Issue	Non-compliances
approved by the DG DP&I.	
Not all monitoring parameters had Statutory requirements and trigger levels described in the AEMR and not all results were compared against previous year's results.	DA – Sch 5 – C 3 AQMP 4.6.1 b) ACHMP 8.1 BLMP 6.1 NMP 6 Waste MP 4.2 Waste MP 7.1
The Site Noise Reduction plan did not address CHPP or Bradford Breaker noise.	EA SoC 12 NMP 3.3
The Site Noise Reduction plan did not address community complaints.	EA SoC 12 NMP 3.3
Noise audits from Q2 and Q4 in 2012 were not posted onto the website within 14 days of receiving the results.	NMP 6
The Noise Management Plan was not approved by DG (though it has been submitted for some time).	NMP 3.2
Noise audit reports did not provide details of the persons (and their qualifications) who conducted the attended noise monitoring.	NMP 6.1
The Environment and Community Risk Assessment has been conducted, but not annually.	EMS 4.2.2
Community Newsletters published annually, not six monthly.	EMS 6.2
The EMS States that the incident reporting number is available through the EPA, this is not the case.	EMS 6.3 WMP 5.5.3
HSEC meetings are run six monthly, not monthly.	EMS 7.1
Annual Land Management Inspection Reports did not review vegetation condition in asset protection zones, condition of fencing, gates and signposting or subsidence management issues.	BLMP 4.2
Annual Land Management report (2012) did not review vegetation height under powerlines.	MOP 2012
Topsoil stockpiles not less than 3m high.	ESCMP 4.1
Topsoil stockpiles older than 3 months do not have effective vegetative cover.	ESCMP 4.1
No check for erosion in drainage lines in Erosion and Sediment Control Checklist.	ESCMP 5.1

Issue	Non-compliances
Waste management data not supplied to management on a monthly basis.	Waste MP 4.2
Emergency Spill Response Trailer not maintained in fully effective condition.	MOP (2012) 3.7.4

4.2 Project Approval DA 09-0178

Table 5 shows the conditions that were non-compliant with the Project Approval 09-0178. An assessment of compliance for each condition in PA 09-0178 is provided in the audit protocol in Appendix B.

Table 5 Non-Compliances for PA 09-0178

Schedule	Condition	Requirement	Finding
2	9	Within 12 months of the date of this approval, or as otherwise agreed by the Director-General, the Proponent shall surrender all existing development consents for the operation of the Baal Bone Colliery, in accordance with sections 75YA and 104A of the EP&A Act, to the satisfaction of the Director-General.	Request to surrender consents was made within the 12 month period however the Director General's reply did not occur until 26 March 2012. Administrative Non-compliance
3	12	The Proponent shall prepare and implement an Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program must: (a) be prepared in consultation with DECCW, by a suitably qualified expert whose appointment has been approved by the Director-General;	No evidence found that the appointment of a suitably qualified expert had been approved by the Director General. Administrative Non-compliance
3	14	The Proponent shall ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.	Iron exceedance at LD6 in Sept 2012 (2012 AEMR, 3.3.1). TSS exceedances in Feb 2013 (monitoring spreadsheet)
3	20	The Surface Water Monitoring Plan must include: (a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could be impacted by the project (including the Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek);	Cox's River is not specifically characterised for baseline data, within the SWMP. The Water Management Plan is used to manage the site but is not yet approved allowing revision prior to approval, Administrative Non-compliance

Schedule	Condition	Requirement	Finding
3	21	<p>The Groundwater Monitoring Plan must include:</p> <p>(a) baseline data of groundwater levels, yield and quality in the region that may be affected by mining operations on site;</p>	<p>Baseline data of groundwater levels and quality, but not yield outlined.</p> <p>The Water Management Plan is used to manage the site but is not yet approved allowing revision prior to approval, Administrative Non-compliance</p>
3	21	<p>The Groundwater Monitoring Plan must include:</p> <p>(e) a program to validate the groundwater model for the project, and calibrate it to site specific conditions.</p> <p>Validated by qualified groundwater consultant every 2 years (4.2.1)</p>	<p>Groundwater Model Validation not completed biennially.</p>
3	22	<p>The Surface and Ground Water Response Plan must describe what measures and/or procedures would be implemented to:</p> <p>(c) mitigate and/or offset any adverse impacts on riparian vegetation.</p>	<p>Riparian vegetation impacts not included in the Surface and Ground Water Response Plan.</p> <p>The Water Management Plan is used to manage the site but is not yet approved allowing revision prior to approval, Administrative Non-compliance</p>
3	25	<p>The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Director-General of I&I NSW and the Director General. The Rehabilitation Management Plan must:</p> <p>(d) investigate options for the future use of the site in a manner consistent with any regional planning strategies;</p>	<p>The RMP/MOP does not reference Regional Planning Strategies.</p> <p>Administrative Non-compliance</p>
5	1	<p>The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General.</p>	<p>No evidence of approval by the Director General.</p> <p>Administrative Non-compliance</p>
5	3	<p>By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General.</p> <p>This review must:</p> <p>(b) include a comprehensive review of the monitoring results and complaints</p>	<p>Statutory requirements and/or trigger levels not mentioned for all areas. Only Surface water, Groundwater levels, flora and fauna refer to results of previous years.</p> <p>Administrative Non-compliance</p>

Schedule	Condition	Requirement	Finding
		<p>records of the project over the previous calendar year, which includes a comparison of these results against:</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; 	

4.3 Environmental Assessment - Continuation Of Operations, Baal Bone Colliery, Statement Of Commitments

Table 6 shows the conditions that were non-compliant with the Environmental Assessment Statement of Commitments. The Statement of Commitments has been taken from Appendix 3 of the Project Approval 09-0178. An assessment of compliance for each condition in the Statement of Commitments is provided in the audit protocol in Appendix B.

Table 6 Statement of Commitments

Condition	Requirement	Finding
12	<p>Within twelve months of receiving Project Approval, the Proponent shall prepare a Site Noise Reduction Program (SNRP), which would include a Strategy for the reduction of noise generated from the Project area. The SNRP will include investigation of the following items to seek to reduce noise generated from the Project area where feasible:</p> <ul style="list-style-type: none"> • Replacement of damaged insulation installed in Washery Building; • Closure of façade openings in the Washery to Stockpile Transfer and/or Washery buildings; • Options to assess the feasibility and possibility of reducing noise emissions from the Bradford breaker; • Options to reduce noise emissions from the tracked dozer during night hours; and • A program for regular inspections of site plant including the dozer to ensure that the installed noise suppression controls are functioning and require no maintenance. 	<p>The NRP discussed and made recommendations for dozers on the stockpiles but didn't address Washery noise or the Bradford breaker but these items were not identified in the attended noise monitoring conducted to support the NRP.</p>
12	<p>The Site Noise Reduction Program will review and/or develop procedures to manage noise complaints from residents:</p> <ul style="list-style-type: none"> • Procedures for residents to contact the site environmental manager in regard to noise complaints or requests for information; 	<p>The Noise reduction program did not address complaints handling.</p> <p>Administrative Non-compliance as complaints handling is managed elsewhere.</p>

Condition	Requirement	Finding
	<ul style="list-style-type: none"> • Procedures to inform residents of actions implemented following receipt of noise complaints; and • Procedures for the recording, investigation and follow up of noise complaints, and if required, site attended noise audits to identify additional procedures to minimise noise emissions from the Project area. 	
25	The Proponent will monitor potential impacts to air quality resulting from dust in accordance with the Environment Protection Licence (EPL) applying to the Project area and report any potential impacts according to the requirements of the EPL.	EPL Annual Return 2012 states: "Breach of M2.2; 6 dust deposition gauges exposed outside the standard on various occasions due to accessibility issues; 1 sample broken in transit; significant rainfall prevented access to 2 gauges. EPA has written to Licensee." November and December 2013 samples were not collected within the required time.

4.4 Environmental Protection Licence 765

Table 7 shows the conditions that were non-compliant with the Environmental Protection Licence 765 (EPL 765). An assessment of compliance for each condition in the EPL is provided in the audit protocol in Appendix B.

Table 7 Environmental Protection Licence

Condition	Requirement	Finding
L2.1	For each monitoring/discharge point or utilisation area specified in the table 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.	EPL Annual Return 2012 states: "Limit exceeded for Iron in September 2012 at LDP6. No apparent cause. Continued to monitor results. Follow-up investigation to review water monitoring results." TSS exceedance for LDP3 and LDP6 in Feb 2013.
M2.2	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: Air Monitoring Requirements [see table in audit protocol – Appendix B]	EPL Annual Return 2012 states: "Breach of M2.2; 6 dust deposition gauges exposed outside the standard on various occasions due to accessibility issues; 1 sample broken in transit; significant rainfall prevented access to 2 gauges. EPA has written to licensee." November and December 2013 samples were not collected within the required time.

Condition	Requirement	Finding
M2.3	<p>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:</p> <p>Water and/ or Land Monitoring Requirements Points 2, 11 and 12</p>	<p>EPL Annual Return 2012 states: "Breach of M2.3 due to accessibility issues. Water sampling carried out at water monitoring point downstream of sample points. Provided contractor with procedures to be followed in the event of site access issues. EPA has written to licensee."</p>

4.5 Mining Leases

The Mining Leases were assessed and all conditions were either Compliant, not triggered or not assessed (outside audit scope and/or expertise of audit team). No conditions were found to be non-compliant. An assessment of compliance for each condition in the Mining Leases is provided in the audit protocol in Appendix B.

4.6 Environmental Management Strategy

Table 8 shows the conditions that were non-compliant with the Environmental Management Strategy. An assessment of compliance for each condition in the Environmental Management Strategy is provided in the audit protocol in Appendix B.

Table 8 Environmental Management Strategy

Reference	Requirement	Finding
4.2.2	The Environment and Community Risk Assessment and environmental aspects and impacts register are reviewed on an annual basis.	No review of the ECRA since July 2012
6.2	Baal Bone's stakeholder engagement process involves the following four steps: <ul style="list-style-type: none"> • Identification of stakeholders; • Identification of stakeholders information requirements and timing; • Assigning responsibility for undertaking the engagement; CCC meetings to be held 6 monthly Newsletters to be published 6 monthly	Previous two community newsletters (March 2012, May 2013) have been on an annual frequency, not six monthly. CCC met in May and November 2012, and November 2013 not 6 monthly
6.3	Baal Bone Colliery operates an incident reporting and inquiry telephone line (02 6350 6900) advertised to the public via the Baal Bone website, the EPA and public notices such as newsletters. Community complaints are forwarded to the Environment and Community Officer and managed in accordance with BBN SD PRO 0012 Community Complaints Management Procedure.	Telephone line is advertised on the Baal Bone website and the community newsletter, however the number was not available from the EPA. Administrative Non-compliance
7.1	HSEC Meetings run monthly	HSEC meetings are run 6-monthly

4.7 Air Quality Monitoring Program

Table 9 shows the conditions that were non-compliant with the Air Quality Monitoring Program. An assessment of compliance for each condition in the Air Quality Monitoring Program is provided in the audit protocol in Appendix B.

Table 9 Air Quality Monitoring Program

Reference	Requirement	Finding
3.1 a)	The Proponent shall prepare and implement a Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program must: (a) be prepared in consultation with DECCW, and submitted to the Director-General for approval within 6 months of the date of this approval; and ...	No evidence of expert approval by DG. Administrative Non-compliance
4.6.1	Air quality monitoring results will be compiled and reported to internal management on a monthly basis. Monitoring results will be compared to assessment criteria to demonstrate compliance. Completed monitoring will be displayed against legislative monitoring requirements (see Section 3.0) as a demonstration of compliance with the requirements to undertake monitoring.	Reporting done through XSD by exception. It is recommended that the Air Quality Monitoring Program should be reviewed and this requirement be removed as it is deemed not necessary.
4.6.1 b)	By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General. This review must: (b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against: <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; 	Statutory requirements and/or trigger levels not mentioned for all areas. Only Surface water, Groundwater levels, flora and fauna refer to results of previous years. Administrative Non-compliance

4.8 Archaeology And Cultural Heritage Management Plan

Table 10 shows the conditions that were non-compliant with the Archaeology and Cultural Heritage Management Plan. An assessment of compliance for each condition in the Archaeology and Cultural Heritage Management Plan is provided in the audit protocol in Appendix B.

Table 10 Archaeology and Cultural Heritage Management Plan

Reference	Requirement	Finding
8.1	By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the	Statutory requirements and/or trigger levels not mentioned for all areas. Only Surface

Reference	Requirement	Finding
	<p>Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General.</p> <p>This review must:</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against:</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>water, Groundwater levels, flora and fauna refer to results of previous years.</p> <p>Administrative Non-compliance</p>

4.9 Biodiversity and Land Management Plan

Table 11 shows the conditions that were non-compliant with the Biodiversity and Land Management Plan. An assessment of compliance for each condition in the Biodiversity and Land Management Plan is provided in the audit protocol in Appendix B.

Table 11 Biodiversity and Land Management Plan

Reference	Requirement	Finding
4.2	<p>The status of the following land management issues will be reviewed during the annual inspection:</p> <ul style="list-style-type: none"> • Weed populations and infestations • Vertebrate pests • Vegetation levels within asset protection zones • Soil erosion / land degradation • Pasture and native vegetation condition • Condition of exclusion fencing, gates and signposting • Subsidence management and any subsidence remediation works. 	<p>2012 Inspection report reviews status of these issues. 2013 Inspection report does not mention vegetation levels within asset protection zones, condition of exclusion fencing, gates and signposting and subsidence management issues.</p>
6.1	<p>By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General.</p> <p>This review must:</p> <p>(b) include a comprehensive review of the monitoring results and complaints records</p>	<p>Statutory requirements and/or trigger levels not mentioned for all areas. Only Surface water, Groundwater levels, flora and fauna refer to results of previous years.</p> <p>Administrative Non-compliance</p>

Reference	Requirement	Finding
	<p>of the project over the previous calendar year, which includes a comparison of these results against:</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; 	

4.10 Noise Management Plan

Table 12 shows the conditions that were non-compliant with the Environmental Assessment Statement of Commitments. The Statement of Commitments has been taken from Appendix 3 of the Project Approval 09-0178. An assessment of compliance for each condition in the Statement of Commitments is provided in the audit protocol in Appendix B.

Table 12 Noise Management Plan

Reference	Requirement	Finding
3.3	<p>Within twelve months of receiving Project Approval, the Proponent shall prepare a Site Noise Reduction Program (SNRP), which would include a Strategy for the reduction of noise generated from the Project area. The SNRP will include investigation of the following items to seek to reduce noise generated from the Project area where feasible:</p> <ul style="list-style-type: none"> • Replacement of damaged insulation installed in Washery Building; • Closure of façade openings in the Washery to Stockpile Transfer and/or Washery buildings; • Options to assess the feasibility and possibility of reducing noise emissions from the Bradford breaker; 	<p>The NRP discussed and made recommendations for dozers on the stockpiles but didn't address Washery noise or the Bradford breaker.</p>
3.3	<p>The Site Noise Reduction Program will review and/or develop procedures to manage noise complaints from residents:</p> <ul style="list-style-type: none"> • Procedures for residents to contact the site environmental manager in regard to noise complaints or requests for information; • Procedures to inform residents of actions implemented following receipt of noise complaints; and • Procedures for the recording, 	<p>The Noise reduction program did not address complaints handling.</p> <p>Administrative Non-compliance as complaints handling is managed elsewhere.</p>

Reference	Requirement	Finding
	investigation and follow up of noise complaints, and if required, site attended noise audits to identify additional procedures to minimise noise emissions from the Project area.	
6	The results and findings of all scheduled noise monitoring and incident investigations will be reported on the Baal Bone website within two weeks of receiving results in line with the Protection of the Environment Operations Act 1997.	Only August 2012 and November 2013 (Atkins Acoustics) noise audit reports were posted within 2 weeks of date of receipt. The other 3 reports were not posted within the required 2 week period.
6	Results will be summarised in the Annual Review as per PA 09_0178 Schedule 5 Condition 3 and other various mining lease conditions.	The 2012 AEMR only compared monitoring results to the EA. No comment on comparison with previous year's results or specific measurement criteria as required by PA 09_0178.
6.1	The attended noise monitoring reports will include the following: <ul style="list-style-type: none"> • • Details and qualifications of person(s) who conducted the monitoring. • 	Noise audit reports (Atkins Acoustics) do not include details or qualifications of the personnel conducted the monitoring.

4.11 Subsidence Management Plan

There were no non-compliances found with the Subsidence Management Plan. An assessment of compliance for each condition in the Subsidence Management Plan is provided in the audit protocol in Appendix B.

4.12 Water Make Plan

The Water Make Plan is a sub-plan of the Subsidence Management Plan. There were no non-compliances found with the Water Make Plan. An assessment of compliance for each condition in the Water Make Plan is provided in the audit protocol in Appendix B.

4.13 Land Management Plan

The Land Management Plan is a sub-plan of the Subsidence Management Plan. There were no non-compliances found with the Land Management Plan. An assessment of compliance for each condition in the Land Management Plan is provided in the audit protocol in Appendix B.

4.14 Public Safety Management Plan

The Public Safety Management Plan is a sub-plan of the Subsidence Management Plan. There were no non-compliances found with the Public Safety Management Plan. An assessment of compliance for each condition in the Public Safety Management Plan is provided in the audit protocol in Appendix B.

4.15 Protection of Wolgan Escarpment from Longwall 31 Mining Subsidence

The Protection of Wolgan Escarpment from Longwall 31 Mining Subsidence report is a sub-plan of the Subsidence Management Plan. There were no non-compliances found with the Protection of Wolgan Escarpment from Longwall 31 Mining Subsidence report. An assessment of compliance for each condition in the Protection of Wolgan Escarpment from Longwall 31 Mining Subsidence report is provided in the audit protocol in Appendix B.

4.16 Environmental Monitoring Program

The Environmental Monitoring Program is a sub-plan of the Subsidence Management Plan. There were no non-compliances found with the Environmental Monitoring Program. An assessment of compliance for each condition in the Environmental Monitoring Program is provided in the audit protocol in Appendix B.

4.17 Water Management Plan

Table 5 shows the conditions that were non-compliant with the Water Management Plan. An assessment of compliance for each condition in the Water Management Plan is provided in the audit protocol in Appendix B.

Table 13 Water Management Plan

Reference	Requirement	Finding
4.10.6	The water balance will be reviewed annually as part of the Annual Review for the site (refer to Section 5.5.3). This will include a comparison of the performance against the predictions in the Baal Bone Colliery Continued Operations Environmental Assessment (AECOM, 2010).	2012 AEMR does not include a review of the Site Water Balance
5.5.3	Baal Bone Colliery operates an incident reporting and inquiry telephone line (02 6350 6900) advertised to the public via the Baal Bone website, the EPA and public notices such as newsletters. Community complaints are forwarded to the Environment and Community Officer and managed in accordance with BBN SD PRO 0012 Community Complaints Management Procedure.	Telephone line is advertised on the Baal Bone website and the community newsletter, however the number was not available from the EPA. Administrative Non-compliance
5.5.5	A summary of the surface water and groundwater monitoring results will be provided in the Annual Review. The following information will be reported in accordance with the Project Approval: <ul style="list-style-type: none"> • a summary of monitoring results (surface water, groundwater, channel stability and stream health); • an analysis of monitoring results against impact assessment criteria, historical monitoring results and predictions in the EA; 	No reference to the Site Water Balance in the 2012 AEMR, no reference to stream health or channel stability.

Reference	Requirement	Finding
	<ul style="list-style-type: none"> • an identification of any trends in the monitoring results; • the site water balance; • any non-compliances reported during the year; and • actions taken to address any non-compliances. 	
6	The WMP will be made publicly available on the Baal Bone Colliery website.	Only Surface Water and Groundwater Response Plan and the Baal Bone Colliery Environmental Management Strategy are available online. Administrative Non-compliance

4.18 Surface Water Monitoring Program

The Surface Water Monitoring Program is a sub-plan of the Water Management Plan. Table 5 shows the conditions that were non-compliant with the Surface Water Monitoring Program. An assessment of compliance for each condition in the Surface Water Monitoring Program is provided in the audit protocol in Appendix B.

Table 14 Surface Water Monitoring Program

Reference	Requirement	Finding
4.2.1	The groundwater inflow predictions for Baal Bone Colliery will be validated by a qualified groundwater consultant every two years, or if significant changes to mining operations occur, in conjunction with the review of the Baal Bone Colliery Water Management Plan.	The review was not conducted in the audit period.
4.5	Channel stability monitoring will be undertaken annually for Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek to assess the condition of the watercourse.	No channel stability monitoring has been undertaken
4.6	Stream health monitoring is to be undertaken for Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek and will include the monitoring of macro invertebrate assemblages and riparian vegetation.	Stream health monitoring has been conducted for Ben Bullen Creek only.
5.2.2	The Baal Bone Colliery ECO will be responsible for the completion of the annual channel stability and stream health assessments for Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek in accordance with Sections 4.5 and 4.6. The results of this monitoring will be reviewed annually and reported in the Annual Review as required.	<p>No channel stability monitoring and stream health assessments have been undertaken</p> <p>2012 AEMR does not include reference to stream health and channel stability monitoring</p>

Reference	Requirement	Finding
6.4	<p>A summary of the surface water and groundwater monitoring results will be provided in the Annual Review report. The following information will be reported in the Annual Review report in accordance with the Project Approval conditions (refer to Table 2.1):</p> <ul style="list-style-type: none"> • a summary of monitoring results (surface water, groundwater, channel stability and stream health); 	<p>Groundwater and surface water monitoring provided however no review of channel stability and stream health.</p>
6.4	<p>A summary of the surface water and groundwater monitoring results will be provided in the Annual Review report. The following information will be reported in the Annual Review report in accordance with the Project Approval conditions (refer to Table 2.1):</p> <ul style="list-style-type: none"> • the site water balance; 	<p>The site water balance is not included in the 2012 AEMR.</p>
7	<p>The WMP will be made publicly available on the Baal Bone Colliery website</p>	<p>The WMP is still in draft and has not been posted onto the website, however it has been in draft for some time and the previous WMP is also not on the website.</p> <p>Administrative Non-compliance</p>

4.19 Groundwater Monitoring Program

The Groundwater Monitoring Program is a sub-plan of the Water Management Plan. Table 5 shows the conditions that were non-compliant with the Groundwater Monitoring Program. An assessment of compliance for each condition in the Groundwater Monitoring Program is provided in the audit protocol in Appendix B.

Table 15 Groundwater Monitoring Program

Reference	Requirement	Finding
2.1	<p>The Groundwater Monitoring Plan must include:</p> <p>(a) baseline data of groundwater levels, yield and quality in the region that may be affected by mining operations on site;</p>	<p>Baseline data includes groundwater levels and quality, but not yield.</p> <p>Water Management Plan and therefore Groundwater Monitoring Program not yet approved.</p> <p>Administrative Non-compliance</p>
2.1	<p>The Groundwater Monitoring Plan must include:</p> <p>(e) a program to validate the groundwater model for the project, and calibrate it to site specific conditions. Validated by qualified groundwater consultant every 2 years (4.2.1)</p>	<p>Groundwater Model Validation not completed annually.</p>

Reference	Requirement	Finding
4.2.5	<p>A summary of the surface water and groundwater monitoring results will be provided in the Annual Review report. The following information will be reported in the Annual Review report in accordance with the Project Approval conditions (refer to Table 2.1):</p> <ul style="list-style-type: none"> • a summary of monitoring results (surface water, groundwater, channel stability and stream health); 	<p>Groundwater and surface water monitoring provided however no review of channel stability and stream health.</p>
4.2.5	<p>A summary of the surface water and groundwater monitoring results will be provided in the Annual Review report. The following information will be reported in the Annual Review report in accordance with the Project Approval conditions (refer to Table 2.1):</p> <ul style="list-style-type: none"> • the site water balance; 	<p>The site water balance is not included in the 2012 AEMR.</p> <p>Administrative Non-compliance</p>
4.2.5	<p>In addition, any significant findings regarding the implementation of the WMP will be reported in the Annual Review report, which may include:</p> <ul style="list-style-type: none"> • changes to the site water balance; 	<p>Changes to the site water balance were not included in the 2012 AEMR</p> <p>Administrative Non-compliance</p>
5	<p>The WMP will be made publicly available on the Baal Bone Colliery website</p>	<p>The WMP is still in draft and as such has not been posted onto the website, however it has been in draft for some time and the previous WMP is not on the website.</p> <p>Administrative Non-compliance</p>

4.20 Erosion and Sediment Control Management Plan

The Erosion and Sediment Control Management Plan is a sub-plan of the Water Management Plan. **Table 16** shows the conditions that were non-compliant with the Erosion and Sediment Control Management Plan. An assessment of compliance for each condition in the Erosion and Sediment Control Management Plan is provided in the audit protocol in Appendix B.

Table 16 Erosion and Sediment Control Management Plan

Reference	Requirement	Finding
4.1	<ul style="list-style-type: none"> • stockpiles (topsoil) will generally be less than three metres high and will be set out in windrows to maximise surface exposure and biological activity; 	<p>Stockpiles on site do not conform to the requirement.</p>
4.1	<ul style="list-style-type: none"> • establishing a vegetation cover on soil stockpiles if stored for longer than three months; 	<p>There are topsoil stockpiles that haven't been reseeded that were in place before the audit period.</p>

Reference	Requirement	Finding
5.1	<p>During the life of the project at Baal Bone Colliery, monitoring of the erosion and sediment control measures will be undertaken on at least a monthly basis as well as during and after high rainfall events (greater than 50 millimetres of rainfall in 24 hours).</p> <ul style="list-style-type: none"> scouring or erosion in drainage lines 	Monitoring of erosion in drainage lines is not included in the ESC Checklist.
6	The WMP will be made publicly available on the Baal Bone Colliery website	<p>The WMP is still in draft and as such has not been posted onto the website, however it has been in draft for some time and the previous WMP is not on the website.</p> <p>Administrative Non-compliance</p>

4.21 Surface Water And Ground Water Response Plan

The Surface Water and Ground Water Response Plan is a sub-plan of the Water Management Plan. **Table 17** shows the conditions that were non-compliant with the Surface Water and Ground Water Response Plan. An assessment of compliance for each condition in the Surface Water and Ground Water Response Plan is provided in the audit protocol in Appendix B.

Table 17 Surface Water and Ground Water Response Plan

Reference	Requirement	Finding
3.4	<p>A summary of the surface water and groundwater monitoring results will be provided in the Annual Review report. The following information will be reported in the Annual Review report in accordance with the Project Approval conditions (refer to Table 2.1):</p> <ul style="list-style-type: none"> a summary of monitoring results (surface water, groundwater, channel stability and stream health); 	Groundwater, Surface water monitoring provided however no review of channel stability and stream health.
3.4	<p>In addition, any significant findings regarding the implementation of the WMP will be reported in the Annual Review report, which may include:</p> <ul style="list-style-type: none"> changes to the site water balance; 	<p>Changes to the site water balance were not included in the 2012 AEMR</p> <p>Administrative Non-compliance</p>
4	Updated versions of the approved SWGWRP will be made publicly available on the Baal Bone Colliery website	<p>The WMP is still in draft and as such has not been posted onto the website, however it has been in draft for some time and the previous WMP is not on the website.</p> <p>Administrative Non-compliance</p>

4.22 Waste Management Plan

Table 18 shows the conditions that were non-compliant with the Waste Management Plan. An assessment of compliance for each condition in the Waste Management Plan is provided in the audit protocol in Appendix B.

Table 18 Waste Management Plan

Reference	Requirement	Finding
4.2	Waste management data will be compiled and reported to internal management on a monthly basis. Data should be compared to the major waste stream requirements outlined in Appendix 1.	This is no longer done.
4.2	<p>By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General.</p> <p>This review must:</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against:</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>Statutory requirements and/or trigger levels not mentioned for all areas. Waste results do not refer to results of previous years, nor are results compared to the predictions in the EA. (note – including rejects as waste)</p> <p>AEMR must reference previous years' results for all waste.</p> <p>Administrative Non-compliance</p>
7.1	<p>By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General.</p> <p>This review must:</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against:</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>Statutory requirements and/or trigger levels not mentioned for all areas. Waste results do not refer to results of previous years, nor are results compared to the predictions in the EA. (note – including rejects as waste)</p> <p>AEMR must reference previous years results for all waste.</p> <p>Administrative Non-compliance</p>

4.23 Mining Operations Plan, Baal Bone Suspension of Mining Operations (To 2012)

Table 19 shows the conditions that were non-compliant with the Mining Operations Plan, Baal Bone Suspension of Mining Operations (To 2012). An assessment of compliance for each condition in the Mining Operations Plan, Baal Bone Suspension of Mining Operations (To 2012) is provided in the audit protocol in Appendix B.

Table 19 Mining Operations Plan, Baal Bone Suspension of Mining Operations (To 2012)

Reference	Requirement	Finding
3.7.4	An Emergency Spill Response Trailer is retained on site at all times. The trailer contains containment booms suited to local creeks and dams, and sufficient absorbents to cater for a 2,000 L spill. The trailer has been purchased to complement those of Springvale Coal and Delta Electricity such that a range of Emergency Environmental Responses could be addressed.	Trailer is in poor order, materials still on board but trailer roadworthiness and effectiveness in an incident is doubtful.
7.14	Vegetation height beneath powerlines is also a component of the land management review which is conducted annually in response to the requirements of the Biodiversity and Land Management Plan.	2012 Land Management Inspection (Ecological) assessed this but 2013 Inspection by DnA Environmental did not.

4.24 Mining Operations Plan, Baal Bone Suspension of Mining Operations (Revised 2013)

There were no non-compliances found with the Mining Operations Plan, Baal Bone Suspension of Mining Operations (Revised 2013). An assessment of compliance for each condition in Mining Operations Plan, Baal Bone Suspension of Mining Operations (Revised 2013) is provided in the audit protocol in Appendix B.

4.25 Pollution Incident Response Management Plan

There were no non-compliances found with the Pollution Incident Response Management Plan. An assessment of compliance for each condition in Pollution Incident Response Management Plan is provided in the audit protocol in Appendix B.

4.26 Water Licenses

There were no non-compliances found with the conditions within the various Water Licenses. An assessment of compliance for each condition in the Water Licenses is provided in the audit protocol in Appendix B.

4.27 Baal Bone Colliery Independent Environmental Audit, URS 2011

The audit assessed compliance with the recommendations made by the previous IEA conducted in 2011.

Table 20 shows the conditions that were non-compliant with the IEA. An assessment of compliance for each condition in the IEA is provided in the audit protocol in Appendix B.

Table 20 2011 Independent Environmental Audit

Reference	Recommendation	Finding
"Seed mix spread sheets and associated maps for the Southern and Northern Rehabilitation Areas in terms of their location usage"	One of the introduced seed mixes include Phalaris, which can quickly become invasive and is a troublesome grass even in grazing terms across NSW. This species should therefore be avoided.	Phalaris remains in the mix
Baal Bone Rehabilitation Monitoring Report, 2009, 2010 and 2011	Despite the scattered occurrences of native perennial grasses in most rehabilitation sites and evidence of their recruitment, the unstable soils and associated erosion has caused many grass juveniles to become buried or uprooted. Increasing the patch area in combination with additional seeding of native perennial ground covers and sterile cover crops (including the application of native pasture hay) may be required in an attempt to stabilise the rehabilitation slopes and increase the soil fertility to ensure these KPI targets continue to be met.	Reseeding of native grasses into established rehab has not occurred. This is possible though difficult and should be considered where the extent of native grasses is inadequate.
Land Management Assessment Reports 2010 and 2011	It is recommended that future reports: <ul style="list-style-type: none"> • provide detail on annual rehabilitation activities that have been undertaken relative to the area being assessed to provide a more meaningful assessment of rehabilitation over the period of review. 	This detail has not been included.
Rehabilitation Recommendations	<ul style="list-style-type: none"> • Remove from the introduced seed mix spreadsheets "Phalaris", which can quickly become invasive and is a troublesome grass even in grazing terms across NSW. This species should be avoided, even for the 'grazing' rehabilitation areas. 	This has not been done.
DA 3-12	BBC should obtain evidence that Aurecon was approved by DP&I to develop the AQMP.	No evidence presented for this audit (2013).
DA 3-14	Finalise and implement water management plans for BBC.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to

Reference	Recommendation	Finding
		DP&I by September 2012, submitted in October 2012.
DA 3-15	BBCMP to be finalised and signed-off.	BBCMP is in the first stages of development.
DA 3-15	BLMP to be finalised with OEH and include detail regarding the management of Ben Bullen Creek and refer to the comprehensive BBCMP to avoid replication.	BLMP has been finalised and approved, with no reference to BBCMP as it is still in development phase.
DA 3-16	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 3-16	The approved plan should be implemented and compliance with the plan monitored.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 3-17	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 3-17	The approved plan should be implemented and compliance with the plan monitored.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 3-18	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 3-18	The approved plan should be implemented and compliance with the plan monitored. The upcoming AEMR is to include outcomes of the rehabilitation inspection process for 2011, as per the Ben Bullen Management Plan.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 3-19	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 3-19	The approved plan should be implemented and compliance with the plan monitored.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 3-20	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.

Reference	Recommendation	Finding
DA 3-20	The approved plan should be implemented and compliance with the plan monitored.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 3-21	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 3-21	The approved plan should be implemented and compliance with the plan monitored.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 3-22	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 3-22	The approved plan should be implemented and compliance with the plan monitored.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
DA 5-2	It is recommended that BBC finalise and submit the Water Management Plan and all associated sub-plans to ensure ongoing compliance with water quality criteria and to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.
CCL749 32	It is recommended that BBC finalise and submit the Water Management Plan and all associated sub-plans to ensure ongoing compliance with water quality criteria and to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted to DP&I by September 2012, submitted in October 2012.

5 ADEQUACY/EFFECTIVENESS OF ENVIRONMENTAL MANAGEMENT AND MANAGEMENT DOCUMENTATION

The Baal Bone site is in "Suspended Operations" at the moment while Glencore decides the site's future. As stated in the Introduction (Section 1.1), there is minimal activity at the site. From an environmental perspective, the key potential impacts are still water, air and noise. The majority of the management plans are relatively new, with the oldest dating to after the recent site approval (mid 2012) whilst most have been updated in response to the submission of the revised MOP for Suspended Operations developed and approved in late 2012.

Water presents the highest risk as the mine continues dewatering and there are still disturbed areas where runoff can collect pollutants prior to moving offsite. Despite a small number of exceedances of the EPL requirements for water quality leaving the site, generally water management is acceptable. This is because the infrastructure used to manage the site water now is almost the same as was used when the site was in full production so the systems and infrastructure are bedded down and personnel are familiar with strengths and weaknesses and manage them accordingly. The only significant change in water management since production was to reroute the pipe work for the northern and southern dewatering bores to return mine water to site storage. This change was implemented at the request of the EPA.

With the lack of activity at the pit top, sediment loads entering the dirty water system are much reduced. The potential for impacts from hydrocarbons and other contaminants are also greatly reduced and further reduced by the removal of the majority of the mobile plant from the site.

Air quality issues are reduced due to the lack of activity at the pit top. There are still large exposed areas at the pit top but with rain and weathering since production, coal washing and transport have ceased, these areas have developed a surface crust that greatly reduces the potential for dust generation. This reduces the effort required for dust/particulate control. Reducing the exposed surface areas presents an area for improvement that the site is moving forward slowly with. There are only a few small areas that could be rehabilitated without compromising future site uses and the site should be encouraged to act on these areas as soon as possible.

Noise is also greatly reduced with the only remaining major contributor being the ventilation fan. Ventilation fan noise contribution to the sites noise impact has been reduced by the removal of the south-eastern ventilation fan.

Sound sources that are no longer contributing to noise impacts at the site include:

- South-east ventilation fan;
- CHPP noise;
- Bradford Breaker;
- Dozers on coal stockpiles;
- Mining equipment at the surface;
- Trains;
- Vehicular travel to and from the site; and
- No road transport of coal.

There have been no community complaints in the audit period and this is an accurate reflection of the reduced site activity and impacts.

Given the uncertainty regarding the site's future and the fact that impacts are currently low, it is difficult to find areas for improvement within the environmental management documentation at the site apart from the recommendations provided to reach compliance in this audit. Whilst the environmental documentation has been adjusted to address the mothballing of the site it is still structurally designed to manage the impacts from an operational mine.

The management of rehabilitation at Baal Bone is one area where improvement is possible whilst the site is not operational and is made easier by the lack of ongoing disturbance.

During the audit a few key areas were identified that could improve the quality of the rehabilitation at the site. One of the key areas is weed management the other is topsoil management.

5.1 Weed Management

Baal Bone control noxious weeds at the site in a satisfactory manner, however there is not enough consideration of the impact that environmental weeds can have on the rehabilitation and closure costs for the site. There is a proliferation of pine trees, Patersons Curse and St Johns Wort across the site. Whilst the Patersons Curse and St Johns Wort may be shaded out in the future by mature rehabilitation, the pine trees will not. The pines are spreading via seeds across the rest of the site courtesy of the local yellow tailed black cockatoos leading to infestation in the rest of the rehabilitated areas.

This audit recommends that future weed surveys conducted at the site include the impact of noxious and environmental weeds on closure. The findings of this review would be used when developing the annual weed management program. Given the amount of work required to address the pine tree issue, it is recommended that the weed management program contain annual actions and a longer term strategy (say 5 years) that progresses the more difficult issues.

5.2 Topsoil Management

There is an amount of "topsoil" left stockpiled on the site. This soil is free dig material (material below topsoil and subsoil that is unconsolidated and can be excavated without blasting) removed from the area of the creeks on the northern side of the site. So it is not strictly topsoil but alluvial subsoil and thus does not need to comply with the 3m height limit for stockpiled topsoil applied at the site as it was not likely to be high in soil living/organic matter when initially stockpiled. The subsoil would still benefit from storage similar to normal topsoil as it would remain relatively aerobic and microbes would colonise over time. Organic matter in the subsoil would also increase. Given the lack of topsoil at the site and the large areas still to be revegetated, this soil needs more careful storage.

The topsoil should be formed into stable stockpile units and revegetated in a location that will not impede either the continuation of mining at the site or closure activities.

6 RECOMMENDATIONS

This section of the audit report details the recommendations for the site to reach compliance with approvals, licenses and permits and to improve the environmental management of the site. Some recommendations have resulted directly from the recorded non-compliances others from observations made by the lead auditor through the process of the audit. Not all non-compliances result in recommendations.

1. All compliance documentation to be entered into CMOS (electronic compliance management system) so it is available when required. Where documentation is missing, attempt to replace it.
2. Conduct a thorough review of all environmental management documentation when it is finalised but before it is implemented to make sure all actions and documentation required for compliance are identified and addressed.
3. When documentation sits with DP&I for approval, pursue the approval vigorously and document the communications.
4. Conduct an Environment and Community Risk Assessment promptly after the audit and then annually thereafter or review the period between ECRAs as stated in the EMS to align it with actual site practise while the site is in "Suspended Operations".
5. Review the period for the issue of Community Newsletters, running the HSEC meeting and CCC meetings as stated in the EMS and revise to align it with actual site practise while the site is in "Suspended Operations".
6. Remove reference to the EPA in the section referring to the community complaints telephone line in the EMS and WMP.
7. Revise the AQMP regarding the process and periodicity of internal reporting of air quality results to management.
8. Review the approval documentation to ensure that all requirements for reporting are included in the AEMR. This will help ensure that there are no future non-compliances because of missing information.
9. Review the site inspection regime for the ECO. The review should focus on the actual site environmental risks and making sure that all risk items are covered but ensuring the period between inspections reflects the risk of environmental impact.
10. Review the Water Management Plan (SWMP, GWMP and SWGWRP) to include requirements for monitoring channel stability and stream health monitoring and other minor issues noted through the audit. Consult with DP&I, DTIRIS DRE Minerals and NoW to determine the best solution to the deficiency identified in the audit.
11. Seek permission to have a staged approval of the WMP so that the Ben Bullen Creek Management Plan can be added when it is finalised but water management at the site can be approved in the interim.
12. Change the location, management and structure of topsoil stockpiles as detailed in this audit report (Section 5.2).
13. Revise weed management at the site as discussed in this report (Section 5.1).

14. Review the Waste Management Plan to ensure reporting requirements match the level of risk, legislative\regulatory requirements and current site practise.
15. Review the requirement for the Emergency Response Trailer and if necessary, amend the MOP to suit.
16. Keep documentation of the Annual EMS review within the Environment Department (CMOS) for compliance and to inform the ECRAs.
17. Revise rehabilitation seed mixture for pastures to remove Phalaris.
18. As part of the next Land Management Assessment Report, have a rehabilitation expert assess methods to specifically improve existing rehabilitation at the site and draw up an action plan to suit the findings.
19. Review all surface areas that do not have vegetative cover at the site and develop an action plan to provide temporary cover on erodible surfaces or permanently rehabilitate areas where that won't impede future uses.
20. All approval documents that are revised as a result of this audit to be resubmitted to the relevant department for approval.

APPENDIX A – DP&I LETTER APPROVING AUDIT TEAM



Planning & Infrastructure

Development Assessment Systems & Approvals Mining Projects

Contact: Paul Freeman
Tel: 9228 6587
Fax: 9228 6466
Email: paul.freeman@planning.nsw.gov.au

23-33 Bridge Street
GPO Box 39
SYDNEY NSW 2001

Mr Mark Bulkeley
Operations Manager
Baal Bone Colliery
PO Box 13
LITHGOW NSW 2790

Attention: Ms Nicole Van den Berg

Dear Mr Bulkeley

Baal Bone Coal Project (09_0178) Independent Environmental Audit

I refer to your letter, dated 21 October 2013, nominating a team from SMEC Australia Pty Limited to undertake the forthcoming Independent Environmental Audit of the Baal Bone Coal Project.

The Department has reviewed the information you have provided, and is satisfied that the nominated persons are suitably qualified and experienced to undertake the audit. The Director-General has accordingly approved the following persons to undertake the audit:

- Mr Peter Horn;
- Mr Luke Palfreeman; and
- Mr Lachlan Edwards.

I would appreciate it if you could advise the lead auditor that the Department does not accept use of the term "partial compliance". If you wish to discuss the matter further, please contact Paul Freeman.

Yours sincerely

Howard Reed
Manager
Mining Projects
as the Director-General's nominee

4.11.13

APPENDIX B - AUDIT PROTOCOL

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
SCHEDULE 2 - ADMINISTRATIVE CONDITIONS			
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT			
1	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.	Reviewed through this audit process and found to be generally compliant with this statement	Compliant
TERMS OF APPROVAL			
2	The Proponent shall carry out the project generally in accordance with the: (a) EA; (b) statement of commitments; and (c) conditions of this approval. <i>Notes:</i> - The general layout of the project is shown in Appendix 2; - The statement of commitments is reproduced in Appendix 3.	Reviewed through this audit process and found to be generally compliant with this statement	Compliant
3	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Noted	
4	The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of: (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these documents.	Noted and dealt with elsewhere in this audit	
LIMITS ON APPROVAL			
5	The Proponent may undertake mining operations on the site until 31 December 2014. <i>Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Director-General and I&I NSW. Consequently this approval will continue to apply in all other respects other than the right to conduct mining operations until the site has been properly rehabilitated.</i>	Noted	Not triggered
6	The Proponent shall not extract more than 2.8 million tonnes of ROM coal from the site per calendar year.	No mining was undertaken during the audit period.	Compliant
7	The Proponent shall not transport more than 900,000 tonnes of coal per calendar year by road.	Approximately 290,000 tonnes transported in 2012. No more during the rest of the audit period.	Compliant
8	The Proponent shall not transport any coal reject from the site.	No rejects transported from site	Compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
SURRENDER OF CONSENTS			
9	Within 12 months of the date of this approval, or as otherwise agreed by the Director-General, the Proponent shall surrender all existing development consents for the operation of the Baal Bone Colliery, in accordance with sections 75YA and 104A of the EP&A Act, to the satisfaction of the Director-General.	Request to surrender was made within the 12 month period however the D-G's reply did not occur until 26 March 2012.	Non-compliant
STRUCTURAL ADEQUACY			
10	The Proponent shall ensure that any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. <i>Notes:</i> <ul style="list-style-type: none"> • Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works; and • Part 8 of the EP&A Regulation sets out the requirements for the certification of the project. 	Nothing has been constructed at site in the audit period.	Not Triggered
DEMOLITION			
11	The Proponent shall ensure that all demolition work is carried out in accordance with AS 2601-2001: The Demolition of Structures, or its latest version.	Ventilation shaft was demolished to DRE inspectorate's approval. Whilst there is no direct evidence of compliance with AS 2601-2001, the auditors believe the standard applied was in excess of the requirements of AS 2601-2001.	Compliant
OPERATION OF PLANT & EQUIPMENT			
12	The Proponent shall ensure that all plant and equipment used at the site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Reviewed the Maintenance planning for the site, specifically reviewed pipe and pump maintenance. There is a comprehensive system in place and there was no evidence of poorly maintained equipment during the site inspection.	Compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
STAGED SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS			
13	<p>With the approval of the Director-General, the Proponent may submit any strategies, plans or programs required by this approval on a progressive basis. Existing strategies, plans or programs at the date of this approval may continue to be implemented for mining operations, until the strategies, plans or programs required under this approval are approved by the Director-General, in accordance with the EA, Statement of Commitments and the conditions of this approval.</p> <p><i>Note: The conditions of this approval require certain strategies, plans, and programs to be prepared for the project. They also require these documents to be reviewed and audited on a regular basis to ensure they remain effective. However, in some instances, it will not be necessary or practicable to prepare these documents for the whole project at any one time; particularly as these documents are intended to be dynamic and improved over time. Consequently, the documents may be prepared and implemented on a progressive basis. In doing this however, the Proponent will need to demonstrate that it has suitable documents in place to manage the existing operations of the project.</i></p>	<p>Note; The ACHMP was submitted on a staged basis in accordance with this requirement</p>	<p>Compliant</p>

Clause	Requirement	Evidence	Audit Finding							
Project Approval 09/0178										
SCHEDULE 3 - SPECIFIC ENVIRONMENTAL CONDITIONS										
SUBSIDENCE										
Performance Measures										
1	The Proponent shall ensure that the project does not cause any exceedences of the performance measures in Table 1.	Noted								
	<table border="1"> <tr> <td colspan="2">Water</td> </tr> <tr> <td>Coxs River, Coks River Swamp, Wolgan River, Jews Creek, Baal Bone Creek and Ben Bullen Creek</td> <td>No greater subsidence impact or environmental consequences than predicted in the EA.</td> </tr> </table>	Water		Coxs River, Coks River Swamp, Wolgan River, Jews Creek, Baal Bone Creek and Ben Bullen Creek	No greater subsidence impact or environmental consequences than predicted in the EA.	Jews Creek, Baal Bine Creek and Ben Bullen Creek have not been subjected to active subsidence in the audit period. Monitoring was reviewed in End of Panel reports that indicated the other surface water features were being protected/assessed for damage.	Compliant			
	Water									
	Coxs River, Coks River Swamp, Wolgan River, Jews Creek, Baal Bone Creek and Ben Bullen Creek	No greater subsidence impact or environmental consequences than predicted in the EA.								
	<table border="1"> <tr> <td colspan="2">Biodiversity</td> </tr> <tr> <td>Threatened species or populations, endangered ecological communities</td> <td>Negligible impact.</td> </tr> </table>	Biodiversity		Threatened species or populations, endangered ecological communities	Negligible impact.	Fauna monitoring in End of Panel reports indicated no significant impacts to fauna or flora.	Compliant			
	Biodiversity									
	Threatened species or populations, endangered ecological communities	Negligible impact.								
	<table border="1"> <tr> <td colspan="2">Land</td> </tr> <tr> <td>Cliffs</td> <td>No cliff falls from the Wolgan Escarpment</td> </tr> <tr> <td>Rock pagodas</td> <td>Negligible impact</td> </tr> <tr> <td>Other rock formations</td> <td>No greater subsidence impact or environmental consequences than predicted in the EA.</td> </tr> </table>	Land		Cliffs	No cliff falls from the Wolgan Escarpment	Rock pagodas	Negligible impact	Other rock formations	No greater subsidence impact or environmental consequences than predicted in the EA.	Monitoring in End of Panel reports indicates negligible (not visible) impacts to rock formations in the areas of LW 29-31.
Land										
Cliffs	No cliff falls from the Wolgan Escarpment									
Rock pagodas	Negligible impact									
Other rock formations	No greater subsidence impact or environmental consequences than predicted in the EA.									
<table border="1"> <tr> <td colspan="2">Heritage</td> </tr> <tr> <td>Aboriginal cultural heritage sites</td> <td>No greater subsidence impact or environmental consequences than predicted in the EA.</td> </tr> </table>	Heritage		Aboriginal cultural heritage sites	No greater subsidence impact or environmental consequences than predicted in the EA.	See ACHMP review as part of this audit	Compliant				
Heritage										
Aboriginal cultural heritage sites	No greater subsidence impact or environmental consequences than predicted in the EA.									
<table border="1"> <tr> <td colspan="2">Built Features</td> </tr> <tr> <td>Wolgan Gap Trig Station</td> <td>Safe, serviceable and repairable.</td> </tr> </table>	Built Features		Wolgan Gap Trig Station	Safe, serviceable and repairable.	End of Panel reports confirm no changes of consequence to the trig station.	Compliant				
Built Features										
Wolgan Gap Trig Station	Safe, serviceable and repairable.									
<table border="1"> <tr> <td colspan="2">Public Safety</td> </tr> <tr> <td>Public Safety</td> <td>No additional risk due to mining.</td> </tr> </table>	Public Safety		Public Safety	No additional risk due to mining.	End of panel reports confirm no increase in risk to public and site inspection confirmed this..	Compliant				
Public Safety										
Public Safety	No additional risk due to mining.									
<i>Note: The Proponent maybe required to define more detailed performance indicators for each of these performance measures in the various management plans that are required under this approval.</i>		Noted								
Subsidence Management Plan for Longwalls 29-31										
2	The Proponent shall: (a) undertake mining operations in longwalls 29-31 in accordance with the Subsidence Management Plan approved by I&I NSW; and	Letter of approval from I&I for the SMP sighted by the auditors	Compliant							
	(b) apply protection barriers between longwall 31 and the Wolgan Escarpment, with minimum barrier distances no less than as shown in Figure 3 of Appendix 2.	Section 7 in the SMP states protection is provided to the Wolgan Escarpment	Compliant							

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
Subsidence Management Plan for Remnant Coal Mining Areas			
3	The Proponent shall prepare a Subsidence Management Plan for the remnant coal mining areas, which must:		Not triggered
	(a) include a mine plan for the relevant area;		Not triggered
	(b) include appropriate baseline data, collected at an appropriate frequency and scale;		Not triggered
	(c) integrate ongoing management of previously mined areas;		Not triggered
	(d) include a subsidence impact assessment, clearly distinguishing, describing and quantifying all predicted subsidence effects, subsidence impacts and environmental consequences;		Not triggered
	(e) include protection barriers to natural features, with minimum barrier distances no less than as shown in Figure 4 of Appendix 2;		Not triggered
	(f) include management, monitoring and contingency plans for all significant man-made and natural features which may experience subsidence effects, subsidence impacts or environmental consequences, including: <ul style="list-style-type: none"> • cliff lines, rock pagodas and other rock formations • watercourses; • groundwater; • terrestrial flora and fauna and ecology (including any threatened species and their habitats); and 		Not triggered
	(g) be approved by the Director-General of I&I NSW prior to the carrying out of any underground mining operations that could cause subsidence in the relevant area; and		Not triggered
(h) be implemented, following approval, to the satisfaction of the Director-General of I&I NSW.		Not triggered	

Clause	Requirement	Evidence	Audit Finding						
Project Approval 09/0178									
NOISE									
Noise Impact Assessment Criteria									
4	By 31 December 2011, the Proponent shall ensure that the noise generated by the project does not exceed the long term noise impact assessment criteria in Table 2 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.	Noted							
	<table border="1"> <thead> <tr> <th>Location</th> <th>All periods dB(A) L_{Aeq} (15 min)</th> <th>Night dB(A) L_{A1} (1 min)</th> </tr> </thead> <tbody> <tr> <td>R1</td> <td>48</td> <td>47</td> </tr> </tbody> </table>	Location	All periods dB(A) L _{Aeq} (15 min)	Night dB(A) L _{A1} (1 min)	R1	48	47	Noise measurements conducted by Atkins Acoustics in 2012 (Feb, May, Aug, Nov) and 2013 (Nov) showed colliery noise was within limits	Compliant
	Location	All periods dB(A) L _{Aeq} (15 min)	Night dB(A) L _{A1} (1 min)						
	R1	48	47						
	<table border="1"> <tbody> <tr> <td>R2</td> <td>41</td> <td>48</td> </tr> </tbody> </table>	R2	41	48	Noise measurements conducted by Atkins Acoustics in 2012 (Feb, May, Aug, Nov) and 2013 (Nov) showed colliery noise was within limits	Compliant			
R2	41	48							
<table border="1"> <tbody> <tr> <td>R3</td> <td>41</td> <td>48</td> </tr> </tbody> </table>	R3	41	48	Noise measurements conducted by Atkins Acoustics in 2012 (Feb, May, Aug, Nov) and 2013 (Nov) showed colliery noise was within limits	Compliant				
R3	41	48							
<table border="1"> <tbody> <tr> <td>All other privately-owned land</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	All other privately-owned land	35	45	Noise measurements conducted by Atkins Acoustics in 2012 (Feb, May, Aug, Nov) and 2013 (Nov) showed colliery noise was within limits	Compliant				
All other privately-owned land	35	45							

Clause	Requirement	Evidence	Audit Finding															
Project Approval 09/0178																		
5	Until 31 December 2011, the Proponent shall ensure that the noise generated by the project does not exceed the interim noise impact assessment criteria in Table 3 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land.	Not in the audit period	Not Triggered															
	<table border="1"> <thead> <tr> <th>Location</th> <th>All periods dB(A) L_{Aeq} (15 min)</th> <th>Night dB(A) L_{A1} (1 min)</th> </tr> </thead> <tbody> <tr> <td>R1</td> <td>48</td> <td>47</td> </tr> <tr> <td>R2</td> <td>43</td> <td>48</td> </tr> <tr> <td>R3</td> <td>43</td> <td>48</td> </tr> <tr> <td>All other privately-owned land</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	Location	All periods dB(A) L _{Aeq} (15 min)	Night dB(A) L _{A1} (1 min)	R1	48	47	R2	43	48	R3	43	48	All other privately-owned land	35	45	Not in the audit period	Not Triggered
	Location	All periods dB(A) L _{Aeq} (15 min)	Night dB(A) L _{A1} (1 min)															
	R1	48	47															
	R2	43	48															
	R3	43	48															
	All other privately-owned land	35	45															
		Not in the audit period	Not Triggered															
		Not in the audit period	Not Triggered															
		Not in the audit period	Not Triggered															
	<p><i>Notes to Tables 2 and 3:</i></p> <ul style="list-style-type: none"> <i>To interpret the locations referred to in Table 2, see the applicable figure in Appendix 2;</i> <i>Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy; and</i> <i>These noise impact assessment criteria do not apply if the Proponent has an agreement with the relevant owner/s to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.</i> 	Noted																
Noise Management Plan																		
6	The Proponent shall prepare a Noise Management Plan for the project, to the satisfaction of the Director- General. The plan must:	Letter of approval from D-G sighted from 11/11/11	Compliant															
	(a) be prepared in consultation with DECCW, and submitted to the Director-General for approval within 6 months of the date of this approval; and	Letter was sent to DoP on 14 June 2011.	Compliant															
	(b) include a Noise Monitoring Program, that uses a combination of real-time and supplementary attended monitoring measures, and includes a protocol for determining exceedences with the relevant conditions of this approval.	NMP includes a monitoring program that uses real-time and attended monitoring. Protocol is taken from Atkins Acoustics monitoring report.	Compliant															

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
Operating Conditions			
7	The Proponent shall:	Noted	
	(a) implement best practice noise management, including all reasonable and feasible noise mitigation measures to minimise the operational, low frequency, rail, and road traffic noise generated by the project;	Track adjustment and track speed by dozers on the stockpile included in the Noise Reduction Program 2011	Compliant
	(b) regularly assess the real-time noise monitoring and meteorological forecasting data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval, to the satisfaction of the Director-General.	Noise compliance reports by Atkins Acoustics were sighted and deemed to be compliant. However if operations were to start up again, it is recommended that low frequency monitoring and measures be included in the noise monitoring.	Compliant
Road Haulage Management Plan			
8	The Proponent shall prepare and implement a Road Haulage Management Plan for the project to the satisfaction of the Director-General. This plan must:	No road haulage in audit period	Not triggered
	(a) be submitted to the Director-General for approval 3 months prior to any proposal to truck more than 5,000 tonnes of coal per month from the mine;	No road haulage in audit period	Not triggered
	(b) detail the procedures for the ongoing assessment of noise impacts on residences as a result of road haulage of coal from the project; and	No road haulage in audit period	Not triggered
	(c) detail the procedures for the ongoing identification and implementation of reasonable and feasible noise mitigation works at residences adversely impacted by road haulage noise directly attributable to the project.	No road haulage in audit period	Not triggered
AIR QUALITY & GREENHOUSE GAS			
Greenhouse Gas Emissions			
9	The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Director-General.	Operations have ceased and subsequently reduced the overall electricity consumption of the site.	Compliant

Clause	Requirement	Evidence	Audit Finding							
Project Approval 09/0178										
Air Quality Impact Assessment Criteria										
10	The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedences of the criteria listed in Tables 3, 4 and 5 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.	Noted								
	<p><i>Table 3: Long term criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^dCriterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a60 µg/m³</td> </tr> </tbody> </table>	Pollutant	Averaging period	^d Criterion	Total suspended particulate (TSP) matter	Annual	^a 60 µg/m ³	TSP was discontinued in June 2012, as per the Air Quality Monitoring Program (2012 AEMR, 3.1.2). No approval letter from DoP for ceasing monitoring however initial letter sought a reply if they had an objection to the ceasing of monitoring.	Compliant	
	Pollutant	Averaging period	^d Criterion							
	Total suspended particulate (TSP) matter	Annual	^a 60 µg/m ³							
	<table border="1"> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a30 µg/m³</td> </tr> </tbody> </table>	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	PM ₁₀ was discontinued in June 2012, as per the Air Quality Monitoring Program (2012 AEMR, 3.1.2) No approval letter from DoP for ceasing monitoring however initial letter sought a reply if they had an objection to the ceasing of monitoring.	Compliant				
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³								
<p><i>Table 4: Short term criterion for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^dCriterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a50 µg/m³</td> </tr> </tbody> </table>	Pollutant	Averaging period	^d Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³	PM ₁₀ was discontinued in June 2012, as per the Air Quality Monitoring Program (2012 AEMR, 3.1.2) No approval letter from DoP for ceasing monitoring however initial letter sought a reply if they had an objection to the ceasing of monitoring.	Compliant		
Pollutant	Averaging period	^d Criterion								
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³								
<p><i>Table 5: Long term criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase^b in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^cDeposited dust</td> <td>Annual</td> <td>^a2 g/m²/month</td> <td>^a4 g/m²/month</td> </tr> </tbody> </table>	Pollutant	Averaging period	Maximum increase ^b in deposited dust level	Maximum total deposited dust level	^c Deposited dust	Annual	^a 2 g/m ² /month	^a 4 g/m ² /month	Monthly deposited dust monitoring is undertaken and was sighted in monthly monitoring spreadsheet for 2011, 2012 and 2013.	Compliant
Pollutant	Averaging period	Maximum increase ^b in deposited dust level	Maximum total deposited dust level							
^c Deposited dust	Annual	^a 2 g/m ² /month	^a 4 g/m ² /month							
<p><i>Notes for Tables 3-5:</i></p> <ul style="list-style-type: none"> • a Total impact (i.e. incremental increase in concentrations due to the project plus background concentrations due to other sources); • b Incremental impact (i.e. incremental increase in concentrations due to the project on its own); • c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and • d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agree to by the Director-General in consultation with DECCW. 	Noted									

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
Operating Conditions			
11	The Proponent shall:	Noted	
	(a) ensure any that any air pollution generated by the project which is visible from privately owned land or public roads is assessed regularly, and that operations are modified and/or stopped as far as is reasonable and feasible to minimise air quality impacts on privately-owned land;	No operations occurring at the site.	Compliant
	(b) ensure that the real-time air quality monitoring and meteorological forecasting data are assessed regularly, and that operations are modified and/or stopped as required to ensure compliance with the relevant air quality criteria; and	Operations have ceased at the site.	Not triggered
	(c) implement all reasonable and feasible measures to minimise off-site odour, fume and dust emissions generated by the project, to the satisfaction of the Director-General.	No potential for creation of off site odours or other air quality issues. Areas that can be rehabilitated have been rehabilitated to minimise dust emissions.	Compliant
Air Quality Monitoring Program			
12	The Proponent shall prepare and implement a Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program must:	Original approval received on 6/7/2011. Subsequent approval to the revised program was received on 21/9/2011.	Compliant
	(a) be prepared in consultation with DECCW, by a suitably qualified expert whose appointment has been approved by the Director-General;	OEH correspondence sighted dated 5/9/11 stating acceptance of the Program. Subsequently, the plan was approved by the DG and this is taken as a tacit approval. No evidence of involvement of suitably qualified expert	Non-compliant
	(b) be submitted to the Director-General for approval within 3 months of the date of this approval, or as; otherwise agreed by the Director-General;	Approval letter is from July which is outside the 3 month window and no correspondence was sighted as to an extension being granted. Outside the audit period.	Not triggered
	(c) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including the proposed real-time air quality management system; and	Monitoring Schedule (4.5) and TARP (5.0) outline measures to ensure compliance with the approval. Real-time air quality monitoring was ceased in June 2012.	Compliant
	(d) include an air quality monitoring program, using a combination of real-time monitors, high volume samplers and dust deposition gauges to monitor the performance of the project, and a protocol for determining exceedences with the relevant conditions of this approval.	Monitoring Schedule (4.5) and TARP (5.0) outline measures to ensure compliance with the approval. Real-time air quality monitoring was ceased in June 2012.	Compliant
	<i>Note: The air quality monitoring program may incorporate monitoring from any relevant regional monitoring network endorsed by DECCW.</i>	Noted	
METEOROLOGICAL MONITORING			
13	The Proponent shall ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline.	2012 AEMR states that the Lithgow (Birdwood Street) weather Station is used (25km SE of site). Weather station at site now used, calibration records sighted	Compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
SOIL & WATER			
Water Discharges			
14	The Proponent shall ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.	Iron exceedence at LD6 in Sept 2012 (2012 AEMR, 3.3.1). TSS exceedences in Feb 2013 (monitoring spreadsheet)	Non-compliant
Ben Bullen Creek			
15	The Proponent shall restore Ben Bullen Creek to the satisfaction of the Director General, in general accordance with the Ben Bullen Creek Natural Channel Design and Restoration Plan.	ECO: "We are in the process of developing the first stages of the MP. URS have been approved to develop the geotec, geomorp, and flood hydraulics."	Not triggered
Water Management Plan			
16	The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must:	27/10/2013 the letter of approval was received from the D-G.	Compliant
	(a) be prepared in consultation with DECCW, I&I NSW and NOW by suitably qualified expert/s whose appointment/s have been approved by the Director-General;	Copies of the Plan sent to DoP, OEH, NoW and DTIRIS on 2 October 2011.	Compliant
	(b) be submitted to the Director-General for approval prior to carrying out any construction on site; and	No construction has been carried out.	Not triggered
	(c) include: <ul style="list-style-type: none"> • a detailed Site Water Balance; • the Ben Bullen Creek Natural Channel Design and Restoration Plan; • an Erosion and Sediment Control Plan; • a Surface Water Monitoring Program; • a Groundwater Monitoring Plan; and • a Surface and Ground Water Response Plan. 	Completed and submitted as an interim and will be submitted as a final as is allowed under the staged submission.	Not triggered
	The Site Water Balance must include details of:	Noted	
17	(a) sources of water supply;	Site water balance was reviewed by the auditors	Compliant
	(b) water use on site;	Site water balance was reviewed by the auditors	Compliant
	(c) water management on site;	Site water balance was reviewed by the auditors	Compliant
	(d) off-site water transfers; and	Site water balance was reviewed by the auditors	Compliant
	(e) reporting procedures.	Site water balance was reviewed by the auditors	Compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
18	The Ben Bullen Creek Natural Channel Design and Restoration Plan must include:	Noted	
	(a) geomorphic and geotechnical assessment of the existing Ben Bullen Creek diversion;	Request has been submitted for URS to undertake work for geomorphic and geotechnical assessment (23/10/13).	Compliant
	(b) assessment of flood hydraulics of the existing diversion;	Request has been submitted for URS to undertake assessment of flood hydraulics of the existing diversion(23/10/13).	Compliant
	(c) staging and timing of remediation works;	Yet to be developed	Not triggered
	(d) detailed design of bed and bank remediation works;	Yet to be developed	Not triggered
	(e) revegetation and rehabilitation methods;	Yet to be developed	Not triggered
	(f) a program to monitor surface water flows, quality, stream health and channel stability; and (g) an implementation program.	Yet to be developed	Not triggered
19	The Erosion and Sediment Control Plan must:	Noted	
	(a) be consistent with the requirements of the Managing Urban Stormwater, Soils and Construction Volume 2E Mines and Quarries (DECCW, 2008), or its latest version;	Completed and submitted as an interim and will be submitted as a final as is allowed under the staged submission.	Compliant
	(b) identify activities that could cause soil erosion and generate sediment;	ESCP identifies activities that could generate sediment and cause erosion should mining activities recommence.	Compliant
	(c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;	Described under section 4. Implementation	Compliant
	(d) describe the location, function, and capacity of erosion and sediment control structures; and (e) describe what measures would be implemented to maintain the structures over time.	Locations are described generally with functions and capacities generally referred to as being to the Blue Book Standard (4.4.1 - 4.4.3), with design drawings of the structures included as an appendix. Inspection and maintenance measures outlined in Section 5.1	Compliant
20	The Surface Water Monitoring Plan must include:	Noted	
	(a) detailed baseline data on surface water flows and quality in creeks and other water bodies that could be impacted by the project (including the Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek);	Cox's River not specifically characterised for baseline data. Include the sample point in Table 3.3.	Non-compliant
	(b) surface water quality and stream health assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts; and	Table 3.5 provides a summary of impact assessment criteria.	Compliant
	(c) a program to monitor: • surface water flows, quality, and impacts on water users; • stream health; and • channel stability in the Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek.	Monitoring program is outlined in sections 4.3-4.8.	Compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
21	The Groundwater Monitoring Plan must include:	Noted	
	(a) baseline data of groundwater levels, yield and quality in the region that may be affected by mining operations on site;	Baseline data of groundwater levels and quality, but not yield outlined (3.2)	Non-compliant
	(b) a program to augment the baseline data over the life of the project;	Section 3.3.3 describes background data correction methods. Monitoring of the groundwater is continuing	Compliant
	(c) groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;	Section 3.3.2 describes trigger levels for ground water quality. Section 3.4 refers to ground water level triggers levels.	Compliant
	(d) a program to monitor: <ul style="list-style-type: none"> • groundwater inflows to the underground mining operations; • the impacts of the project on: <ul style="list-style-type: none"> - the alluvial, Triassic, and coal seam aquifers; - base flows to the Coxs River Swamp; - any groundwater bores on privately-owned land; - riparian vegetation; and • seepage/leachate from any tailings dams, water storages or backfilled voids on site; and 	Riparian vegetation impacts not included in the monitoring program. Seepage/leachate is outlined in the monitoring program (4.1.4). Groundwater inflows to underground workings will be identified as part of the closure process and then have ongoing management measures developed (4.2.1). However, Coxs Rive swamp vegetation included as part of the flora surveys which would make this clause compliant.	Compliant
(e) a program to validate the groundwater model for the project, and calibrate it to site specific conditions.	Validated by qualified groundwater consultant every 2 years (4.2.1)	Non-compliant	
22	The Surface and Ground Water Response Plan must describe what measures and/or procedures would be implemented to:	Noted	
	(a) respond to any exceedences of the surface water, stream health, and groundwater assessment criteria;	2.2 and 2.3 outline the TARP's for responding to exceedences	Compliant
	(b) mitigate the loss of any base flows to Jews Creek following the completion of mining; and	2.7.1 outlines response to loss of base flows in Jews Creek	Compliant
	(c) mitigate and/or offset any adverse impacts on riparian vegetation.	Riparian vegetation impacts not included in the Surface and Ground Water Response Plan.	Non-compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
LANDSCAPE MANAGEMENT			
Biodiversity Management Plan			
23	The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Director-General. This plan must:	Letter of approval received 3/2/2012 following submission of revised Plan on 12/1/12.	Compliant
	(a) be prepared in consultation with DECCW, and submitted to the Director-General for approval within 6 months of the date of this approval, or as otherwise agreed by the Director-General;	14/06/2011 an extension for the due date was requested (to the 14/11/11). Submitted to OEH and DoP by the extended due date (14/9/11) and comments were received	Compliant
	(b) include: • a description of the short, medium, and long term measures that would be implemented to manage the remnant vegetation and habitat on site;	Section 3.3.3 outlines short, medium and long term measures	Compliant
	• a detailed description of the measures that would be implemented over the next 2 years, including the procedures to be implemented for: - restoring the alignment of, and otherwise rehabilitating, Ben Bullen Creek;	Table 2 in 3.3.3 outlines generic plan for Ben Bullen Creek. 3.2.8 also outlines the measurements to be implemented	Compliant
	- managing salinity;	3.2.5 outlines dryland salinity measures to be taken should evidence of it be found on site.	Compliant
	- conserving and reusing topsoil;	Conserving and reusing Topsoil is managed by the Rehabilitation Management Plan/MOP where topsoil management is adequately described.	Compliant
	- managing impacts on fauna;	Section 3.1.4 outlines management activities	Compliant
	- landscaping the site to minimise visual impacts;	3.2.7 outlines measures to minimise the visual impact. However remaining central section to be implemented at full closure stage.	Compliant
	- collecting and propagating seed;	3.2.6 outlines native seed collection methods (for final commissioning and closure stage). Previous rehabilitation seed sourced from Blue Mountains suppliers.	Compliant
	- salvaging and reusing material from the site for habitat enhancement;	Reusing natural materials for rehab is managed by the Rehabilitation Management Plan/MOP where topsoil management is adequately described.	Compliant
	- controlling weeds and feral pests, including terrestrial and aquatic species;	3.2.2 outlines weed and feral animal management measures	Compliant
	- managing grazing and agriculture on site and in the biodiversity offset areas;	3.2.1 outlines sustainable grazing and pasture management measures	Compliant
	- controlling access;		Compliant
	- bushfire management; and	3.2.4 outlines bushfire preparedness measures	Compliant
	- managing potential conflicts between the offset areas and Aboriginal cultural heritage values;	3.2.9 outlines access to offset areas by Aboriginal Groups	Compliant
• a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria; and	A program for inspections and monitoring is outlined in Section 4.	Compliant	
• details of who would be responsible for monitoring, reviewing, and implementing the plan.	Section 7. Accountabilities outlines the role responsible for this.	Compliant	

Clause	Requirement	Evidence	Audit Finding																		
Project Approval 09/0178																					
Rehabilitation Objectives																					
24	The Proponent shall rehabilitate the site to the satisfaction of the Director-General of I&I NSW. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA (and depicted conceptually in Figure 1 in Appendix 4), and achieve the objectives in Table 6.	Noted																			
	<table border="1"> <thead> <tr> <th colspan="2">Table 6: Rehabilitation Objectives</th> </tr> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>Mine site (as a whole)</td> <td>Safe, stable and non-polluting.</td> </tr> <tr> <td>Surface infrastructure</td> <td>To be decommissioned and removed.</td> </tr> <tr> <td>Ben Bullen Creek</td> <td>Hydraulically and geomorphologically stable. To be restored generally to its pre-disturbance flowpath, with established riparian vegetation.</td> </tr> <tr> <td>Other watercourses</td> <td>Hydraulically and geomorphologically stable.</td> </tr> <tr> <td>Cliffs</td> <td>No additional risk to public safety compared to pre-mining conditions.</td> </tr> <tr> <td>Other land affected by the project</td> <td>Restored ecosystem function, including maintaining or establishing self-sustaining eco-systems: <ul style="list-style-type: none"> comprised of local native plant species; with a landform consistent with the surrounding environment. </td> </tr> <tr> <td>Community</td> <td>Minimise the adverse socio-economic effects associated with mine closure.</td> </tr> </tbody> </table>	Table 6: Rehabilitation Objectives		Feature	Objective	Mine site (as a whole)	Safe, stable and non-polluting.	Surface infrastructure	To be decommissioned and removed.	Ben Bullen Creek	Hydraulically and geomorphologically stable. To be restored generally to its pre-disturbance flowpath, with established riparian vegetation.	Other watercourses	Hydraulically and geomorphologically stable.	Cliffs	No additional risk to public safety compared to pre-mining conditions.	Other land affected by the project	Restored ecosystem function, including maintaining or establishing self-sustaining eco-systems: <ul style="list-style-type: none"> comprised of local native plant species; with a landform consistent with the surrounding environment. 	Community	Minimise the adverse socio-economic effects associated with mine closure.	Noted by the auditors, reviewed on site and in monitoring reports.	Compliant
	Table 6: Rehabilitation Objectives																				
	Feature	Objective																			
	Mine site (as a whole)	Safe, stable and non-polluting.																			
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Cliffs	No additional risk to public safety compared to pre-mining conditions.																				
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Community	Minimise the adverse socio-economic effects associated with mine closure.																				
Surface infrastructure	To be decommissioned and removed.	Not in the audit period	Not triggered																		
Ben Bullen Creek	Hydraulically and geomorphologically stable. To be restored generally to its pre-disturbance flowpath, with established riparian vegetation.	Noted by the auditors, full creek alignment not yet completed. Currently stable but not restored to previous path. Baal Bone intend asking for creek to remain on current alignment due to stability of current alignment.	Not triggered																		
Other watercourses	Hydraulically and geomorphologically stable.	Noted	Not triggered																		
Cliffs	No additional risk to public safety compared to pre-mining conditions.	Ongoing monitoring and reporting is occurring through Status Reports.	Compliant																		
Other land affected by the project	Restored ecosystem function, including maintaining or establishing self-sustaining eco-systems: <ul style="list-style-type: none"> comprised of local native plant species; with a landform consistent with the surrounding environment. 	Sighted in inspection of State Forest rehab works for cracking and vent fan site	Compliant																		
Community	Minimise the adverse socio-economic effects associated with mine closure.	Noted but specifically not triggered	Not triggered																		
Rehabilitation Management Plan																					
25	The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Director-General of I&I NSW and the Director General. The Rehabilitation Management Plan must:	MOP developed and approved in 2009, active till approval of the suspended operations MOP. Suspended operations MOP approved in June 2012, approval dated January 2011.	Compliant																		
	(a) be prepared in consultation with I&I NSW, DECCW, NOW and Council, and submitted for approval within 6 months of the date of this approval;	Evidence of consultation with all parties sighted.	Compliant																		
	(b) be prepared in accordance with the relevant I&I NSW guideline;	Approved by DTIRIS DRE tacit approval of process and structure.	Compliant																		
	(c) define the objectives and criteria for site rehabilitation;	Reviewed in the MOP	Compliant																		
	(d) investigate options for the future use of the site in a manner consistent with any regional planning strategies;	The RMP/MOP does not reference Regional Planning Strategies.	Non-compliant																		
	(e) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and	The MOP addresses these issues	Compliant																		
	(f) describe how the performance of these measures would be monitored over time.	These are detailed in the MOP	Compliant																		

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
HERITAGE			
Aboriginal Cultural Heritage Management Plan			
26	The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:	Letter of approval received 3/2/2012.	Compliant
	(a) incorporate the existing Aboriginal Cultural Heritage Management Plan for Longwalls 29-31;	1.2 states 2011 Plan incorporated this and then 2012 Plan is a revision to reflect care and maintenance activities	Compliant
	(b) be prepared in consultation with DECCW, relevant Aboriginal community groups and Council;	1.2 states the 2008 original was workshopped with Registered Aboriginal Parties and DECCW. Appendix 2 includes 2012 community consultation log. Draft submitted to council as per 2012 community consultation log.	Compliant
	(c) be submitted to the Director-General for approval within 6 months of the date of this approval;	14/06/2011 letter submitted to D-G.	Compliant
	(d) include programs and/or procedures for: • salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits which are at risk of significant impact within the project disturbance area;	Management measures for BBC-RS1 and other Indigenous sites over LW29-31 are outlined in 7.2	Compliant
	• managing the discovery of any new Aboriginal objects or skeletal remains found during the project;	Measures are outlined in 7.3	Compliant
	• maintaining and managing access to archaeological sites by the Aboriginal community; and	Procedures for managing access by Aboriginal groups are outlined in 3.5	Compliant
	• ongoing consultation with, and involvement of, relevant Aboriginal community groups in the conservations and management of Aboriginal cultural heritage at the project site.	Procedures for conservations and management of cultural heritage are outlined in 3.6. Relevant group names and contact details are included in Appendix 1. Evidence of consultation sighted by auditors of group involvement in the revision of the Plan	Compliant
• conservation and management of Aboriginal cultural heritage at the project site.	Management measures for BBC-RS1 and other Indigenous sites over LW29-31 are outlined in 7.2	Compliant	
TRANSPORT			
Hours of Operation			
27	The Proponent shall undertake road transport of coal only between 7.00am and 7.00pm, Mondays to Saturdays (excepting Public Holidays). No road transport of coal shall take place on Sundays or Public Holidays.	Noted	Not Triggered

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
28	The Proponent shall keep records of the:	Noted	Not Triggered
	(a) amount of coal transported by both rail and road from the site (on a daily basis); and	Volumes transported by rail are available on Coal Haulage reports available on the website. Daily recording up until rail haulage ceased 25 April 2012	Not Triggered
	(b) number of coal haulage train movements generated by the project (on a daily basis); and	Train movements are available on Coal Haulage reports available on the website. Daily recording up until rail haulage ceased 25 April 2013	Not Triggered
	(c) make these records publicly available on its website in accordance with condition 6 of schedule 5.	The Coal Haulage reports up until April 2012 are available on Baal Bone's website.	Not Triggered
VISUAL			
Visual Amenity and Lighting			
29	The Proponent shall:	Noted	
	(a) minimise the visual impacts, and particularly the off-site lighting impacts, of the surface infrastructure area and the Southern ventilation shaft site;	Site is mothballed, the shaft has been removed. 2012 AEMR states that during 2012 a review was conducted on the lighting requirements and where appropriate the light was minimised (3.11)	Compliant
	(b) take all reasonable and feasible measures to further mitigate off-site lighting impacts from the project; and	2012 AEMR states that during 2012 a review was conducted on the lighting requirements and where appropriate the light was minimised (3.11)	Compliant
	(c) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Director-General.	2012 AEMR states that during 2012 a review was conducted on the lighting requirements and where appropriate the light was minimised (3.11). No issues currently as everything is switched off.	Compliant
WASTE			
30	The Proponent shall:	Noted	
	(a) minimise the waste (including coal reject) generated by the project;	Rejects not generated since early in 2012	Compliant
	(b) ensure that the waste generated by the project is appropriately stored, handled and disposed of, to the satisfaction of the Director-General.	REAs are approved by DRE. Minimal waste generated in the suspended operations phase.	Compliant
31	The Proponent shall prepare and implement a Waste Management Plan for the project to the satisfaction of the Director-General. This plan must be submitted to the Director-General within 3 months of the date of this approval.	Letter was submitted on 8/04/2011. A revision incorporating comments was submitted on 19/05/2011 and finally approved on 23/5/2011.	Compliant
SCHEDULE 4 - ADDITIONAL PROCEDURES			
NOTIFICATION OF LANDOWNERS			
1	If the results of 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,	No exceedences at private properties within the audit period.	Not Triggered
	notify the Director-General, the affected landowners and tenants accordingly, and	No exceedences at private properties within the audit period.	Not Triggered
	provide quarterly monitoring results to each of these parties until the results show that the project is complying with the criteria in schedule 3.	No exceedences at private properties within the audit period.	Not Triggered

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
INDEPENDENT REVIEW			
2	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 Director-General in writing for an independent review of the impacts of the project on his/her land.	No exceedences at private properties within the audit period.	Not Triggered
	If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Director-General's decision:	No exceedences at private properties within the audit period.	Not Triggered
	(a) consult with the landowner to determine his/her concerns;	No exceedences at private properties within the audit period.	Not Triggered
	(b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land, to: <ul style="list-style-type: none"> • determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and • identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and 	No exceedences at private properties within the audit period.	Not Triggered
	(c) give the Director-General and landowner a copy of the independent review.	No exceedences at private properties within the audit period.	Not Triggered
3	If the independent review determines that the project is complying with the relevant impact assessment criteria in schedule 3, then the Proponent may <u>discontinue the independent review with the approval of the Director-General.</u>	No exceedences at private properties within the audit period.	Not Triggered
	If the independent review determines that the project is not complying with the relevant impact assessment criteria in schedule 3, then the Proponent shall:	No exceedences at private properties within the audit period.	Not Triggered
	(a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria, and conduct further monitoring to determine whether these measures ensure compliance; or	No exceedences at private properties within the audit period.	Not Triggered
	(b) secure a written agreement with the landowner to allow exceedences of the relevant impact assessment criteria, to the satisfaction of the Director-General.	No exceedences at private properties within the audit period.	Not Triggered
	If the further monitoring referred to under paragraph (a) above determines that the project is complying with the relevant impact assessment criteria, then the Proponent may discontinue the independent review with the approval of the Director-General.	No exceedences at private properties within the audit period.	Not Triggered

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING			
ENVIRONMENTAL MANAGEMENT			
Environmental Management Strategy			
1	The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. The strategy must:	Recommendation made to seek documentation from DoP.	Non-compliant
	(a) be submitted to the Director-General for approval within 6 months of the date of this approval;	Submitted on 14/01/2011 to the D-G.	Compliant
	(b) provide the strategic framework for environmental management of the project;	The EMS provides a framework	Compliant
	(c) identify the statutory approvals that apply to the project;	3.5 outlines the approval under Part 3A of the Environmental Planning and Assessment Act 1979	Compliant
	(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;	Section 9 outlines roles and responsibilities	Compliant
	(e) describe the procedures that would be implemented to: <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; and • respond to emergencies; and 	Section 6 and it's sub-sections outline these procedures	Compliant
(f) include: <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/or demonstrate that suitable strategies, plans and programs are in place to manage operations ; and • a clear plan depicting all the monitoring currently being carried out within the 	Plans, strategies and programs (including monitoring program) are referenced.	Compliant	
Management Plan Requirements			
	The Proponent shall ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines, and prepared by a suitably qualified expert/s whose appointment has been approved by the Director-General. The Plans must include:	See various management plans	Compliant
	(a) detailed baseline data;	Noted by the auditors	Compliant
	(b) a description of: <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; and • 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; 	Noted by the auditors	Compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
2	(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	Noted by the auditors	Compliant
	(d) a program to monitor and report on the: • impacts and environmental performance of the project; and • effectiveness of any management measures (see (c) above);	Noted by the auditors	Compliant
	(e) a contingency plan to manage any unpredicted impacts and their consequences;	Noted by the auditors	Compliant
	(f) a program to investigate and implement ways to improve the environmental performance of the project over time;	Noted by the auditors	Compliant
	(g) a protocol for managing and reporting any: • incidents; • complaints; • non-compliances with statutory requirements; and • exceedences of the impact assessment criteria and/or performance criteria; and	Noted by the auditors	Compliant
	(h) a protocol for periodic review of the plan.	Noted by the auditors	Compliant
	<i>Note: At the discretion of the Director-General, some of these requirements may be waived where they are either not relevant or necessary.</i>	Noted	
Annual Review			
3	By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General. This review must:	5/3/2013 Annual Report was submitted to D-G.	Compliant
	(a) describe the works that were carried out in the previous calendar year, and the works that are proposed to be carried out over the current calendar year;	Section 2 and it's sub-sections describe the works/activities carried out during 2012. Section 6 and it's sub-sections outline the works proposed for 2013 (2012 AEMR)	Compliant
	(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against: • the relevant statutory requirements, limits or performance measures/criteria; • the monitoring results of previous EA years; and • the relevant predictions in the EA;	Statutory requirements and/or trigger levels not mentioned for all areas. Only Surface water, Groundwater levels, flora and fauna refer to results of previous years. Air Pollution, Surface Water, Groundwater and Pollution, Flora, Fauna, Operational Noise and Aboriginal and European Heritage compare the results to the predictions in the EA. AER must reference previous years results for all areas listed including air quality and noise monitoring.	Non-compliant
	(c) identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance;	Non-compliances over the previous year were identified and subsequent actions detailed (3.20.1 and 3.4.2)	Compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
	(d) identify any trends in the monitoring data over the life of the project;	Some trending conducted, not all areas addressed and not clear whether any were relevant.	Compliant
	(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and	Comparisons to the EA are included	Compliant
	(f) describe what measure will be implemented over the current calendar year to improve the environmental performance of the project.	Section 6 and it's sub-sections outline the activities/works such as ongoing monitoring proposed for 2013 (2012 AEMR)	Compliant
Revision of Strategies, Plans and Programs			
	Within 3 months of the submission of an:	Noted	
	(a) audit report under condition 8 of schedule 5;	Revisions of numerous plans occurred in 2012 as a result of 2011 IEA.	Compliant
	(b) incident report under condition 5 of schedule 5; and	Reports were reviewed by the auditors	Compliant
4	(c) annual review under condition 3 of schedule 5, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.	2013 review constituted a revision of the Biodiversity and Land Management Plan as per the letter submitted to notify the D-G on 16/05/2013	Compliant
	<i>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.</i>	Noted	
REPORTING			
Incident Reporting			
5	The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.	Incidents reported in XtraSafe database. The auditors have sighted the incident report submitted to DoP on 15/02/2013 regarding the leaking pipeline (occurred on 14/02/2013).	Compliant
Regular Reporting			
6	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 under this approval, and to the satisfaction of the Director-General.	Quarterly Environmental Summaries and AEMRs are provided on the website, as are the monthly EPL monitoring results.	Compliant
INDEPENDENT ENVIRONMENTAL AUDIT			
	By 31 December 2011, and every 2 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission at its own cost an Independent Environmental Audit of the project. This audit must:	SMEC Australia conducted the 2013 IEA in December 2013.	Compliant
	(a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;	2011 Audit conducted by URS Australia Pty Ltd and report submitted on 8/2/2012. Letter received from DP&I approving the audit team for this audit.	Compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
7	(b) include consultation with the relevant agencies;	Consultation with DP&I (21/9/13) Consultation with EPA (20/12/13) Consultation with DTIRIS DRE Minerals (19/12/13)	Compliant
	(c) assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);	Summary of non-compliances and recommendations in Section 9. Entire Compliance Protocol in Appendix A.	Compliant
	(d) review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate;	Adequacy review undertaken of EMS and Subsidence Management	Compliant
	(e) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals; and	Recommendations made for EMS and Subsidence Management.	Compliant
	(f) be completed within 2 months of the approval of the audit team.	Extension sought and Granted by DG DP&I.	Compliant
	<i>Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Director-General.</i>	Previous 6 AEMR's available on the website	Compliant
8	<i>Within 6 weeks of the completing of this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.</i>	Not completed, still within the 6 weeks ATM	Not Triggered
ACCESS TO INFORMATION			
9	From 31 March 2011, the Proponent shall:	Noted	
	(a) make the following information publicly available on its website to the satisfaction of the Director- General: • a copy of all approved strategies, plans and programs;	All approved strategies, plan and programs are available on the website. Water MP and related plans are interim and as such are not required to be on the website until approved.	Compliant
	• a comprehensive summary of all monitoring results of the project, which have been reported in accordance with the various plans and program under this approval;	Monitoring results and Environmental Monitoring Summaries are provided on the website	Compliant
	• a complaints register, updated on a quarterly basis;	Complaints register is updated quarterly and available on the website	Compliant
	• copies of any Annual Reviews (over the last 5 years);	Previous 6 AEMR's available on the website	Compliant
	• copies of any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit;	2011 IEA is available on the website as is BB's action plan in response to the recommendations including target dates	Compliant
• any other matter required by the Director-General; and	Not in the audit period	Compliant	

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
	(b) keep this information up-to-date, to the satisfaction of the Director-General.	There is no formal process for compliance with this requirement, it is therefore assumed that the checks conducted as part of this audit fulfil the DG's requirements and indirectly provide tacit approval of the currency of the information provided on the website.	Compliant
Appendix 3 - Statement of Commitments			
General			
1	The Proponent shall carry out the project generally in accordance with the EA and the Statement of Commitments.	Project generally in accordance with Statement of Commitments	Compliant
2	Within 12 months of Project Approval, subject to confirmation that Project Approval conditions provide for feasible implementation of the project and ongoing operations at the Colliery, the Proponent shall surrender all redundant development consents that relate to activities in the Project Area, other than Project approval MP 07_0035 granted by the Minister for Planning on 24 October 2007 relating to the construction and operation of the ventilation shaft and power line corridor associated with Longwalls 29 to 31.	Consents surrendered.	Compliant
3	The Project will be in operation for up to 24 hours a day, seven days per week. The Proponent may load coal for road haulage between the hours of 7:30am and 2:45pm and 3:30pm to 5:30pm Monday to Saturday in accordance with the current Truck Management Plan.	Noted	Compliant
	The hours of road haulage of coal, including initial and final laden journeys of the haulage vehicles to the Colliery and from the power stations, are to be limited to the hours of 7.00am to 7.00pm, Mondays to Saturdays. No road haulage is to take place on Sundays or Public Holidays.	Not in the audit period	Not triggered
4	The Proponent shall not:	Noted	
	(a) extract more than 2.8 million tonnes of ROM coal from the Project area in a calendar year; or	Sighted coal production figures, generally not applicable in audit period	Compliant
	(b) transport more than 2.0 million tonnes of product coal from the Project area in a calendar year.	CHPP operated for a period into the audit period but not for a full 12 months and less than 2MTPA was sent from the site (by train)	Compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
Environmental Management and Monitoring			
5	<p>The Proponent shall adhere to the environmental management, monitoring and reporting requirements contained in Baal Bone's existing and revised monitoring programs contained within the EMS and in the SMP approval for Longwalls 29 to 31 dated 7 December 2007 which includes the following plans:</p> <ul style="list-style-type: none"> • Subsidence Management Plan; • Public Safety Management Plan • Community Consultation Process; • Environmental Monitoring Program • Land Management Plan; • Underground Water Make Monitoring Program; • Subsidence Monitoring Program; • Wolgan Escarpment Management Plan; and • Aboriginal Heritage Management Plan (BBC-RS1). 	EMS and SMP were reviewed by the auditors	Compliant
6	<p>Within 12 months of project approval, the Proponent will review and update Baal Bone's Environmental Management System to incorporate relevant aspects of the environmental management of the Project including a review of the following environmental management plans:</p> <ul style="list-style-type: none"> • Biodiversity and Land Management Plan; • Cultural Heritage Management Procedure; • Social Involvements Plan; • Community Complaints Management Procedure; • Conflict Resolution Procedure; • Hydrocarbon Management; • Mine Closure Plan; • Product Stewardship Management Plan; • Subsidence Management Plan; • Public Safety Management Plan; • Land Management Plan; • Aboriginal Heritage Management Plan; • Truck Management Plan; • Waste Management Plan; • Water Quality Management Plan; and • Training and Competency Management Plan <p>Following a review of these plans, the Proponent will implement the revised plans in carrying out the Project.</p>	Most plans required review due to change in operations. Others were reviewed as a result of the last audit, all have been reviewed in the period nominated.	Compliant
7	<p>The Proponent shall prepare and lodge with the Director-General an Annual Environmental Management Report (AEMR) for the Project containing all Report monitoring data including an analysis of that data, and providing an assessment of the effectiveness or otherwise of all environmental control measures. The first of such reports for the Project shall be completed within 12 months of the date of the Project approval</p>	Reviewed AEMRs.	Compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
Subsidence - Performance Measures			
8	In carrying out its mining operations within the Project area, the Proponent shall implement appropriate mining methods that seek to achieve the objectives contained in Table 8-2 of the Environmental Assessment for the Project.	Mining methods didn't vary from those proposed in the EA.	Compliant
Subsidence - Remnant Areas			
9	Prior to commencing second workings in the Remnant Areas, the Proponent shall prepare and implement an Extraction Plan for all second workings in the Remnant Areas to the satisfaction of the Director-General. This plan must:	Material not extracted and remnant areas have no plans in place for future extraction	Not triggered
	(a) be prepared by a team of suitably qualified and experienced experts whose appointment has been endorsed by the Director-General;	Material not extracted and remnant areas have no plans in place for future extraction	Not triggered
	(b) include a detailed plan for the second workings, which has been prepared to the satisfaction of DII, and provides for adaptive management (for the identified Remnant Areas);	Material not extracted and remnant areas have no plans in place for future extraction	Not triggered
	(c) include detailed plans of associated surface construction works;	Material not extracted and remnant areas have no plans in place for future extraction	Not triggered
	(d) include the following to the satisfaction of DII: <ul style="list-style-type: none"> • a coal resource recovery plan that demonstrates effective recovery of the available resource; • revised predictions of the conventional and non-conventional subsidence effects and subsidence impacts of the extraction plan, incorporating relevant information that has been obtained since this approval; and • a Subsidence Monitoring Program to: <ul style="list-style-type: none"> - validate the subsidence predictions; and - analyse the relationship between the subsidence effects and subsidence impacts of the Extraction Plan and ensuing environmental consequences. 	Material not extracted and remnant areas have no plans in place for future extraction	Not triggered
10	The Proponent must: <ul style="list-style-type: none"> • protect the three cliff formations and Ben Bullen Creek from being directly mined under by an angle of draw of 26.5 degrees of greater as shown in Figure 	Material not extracted and remnant areas have no plans in place for future extraction	Not triggered
	<ul style="list-style-type: none"> • develop a management strategy in consultation with independent archaeologists to manage the subsidence impacts of the archaeological site (Site ID 45-1-0125) 	Material not extracted and remnant areas have no plans in place for future extraction	Not triggered

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
Subsidence - Longwalls 29 to 31			
	The Proponent shall implement the Subsidence Management Plan and associated monitoring programs for Longwalls 29 to 31. The monitoring program will include detailed survey and scientific monitoring which must be undertaken prior to, during and following the mining of Longwalls 29 to 31.	SMP reviewed by the auditors	Compliant
11	Survey and monitoring will include the following: <ul style="list-style-type: none"> • Three-dimensional subsidence monitoring; • Horizontal stress changes in the cliff forming sandstones of the Wolgan Escarpment using stress change monitoring instruments; • Temperature changes in the rock formation at the northern pinch point as a basis for understanding thermal stress changes experienced on the Wolgan Escarpment; and • Implementation of the Land Management Plan which addresses management of surface impacts in the vicinity of the Wolgan Escarpment and pagoda formations and surface cracking in other general surface areas. Visual inspections, plus photographic and video monitoring would be conducted over the surface area at regular intervals during mining of the longwall panels. 	SMP reviewed by the auditors	Compliant
12	Within twelve months of receiving Project Approval, the Proponent shall prepare a Site Noise Reduction Program (SNRP), which would include a Strategy for the reduction of noise generated from the Project area. The SNRP will include investigation of the following items to seek to reduce noise generated from the Project area where feasible: <ul style="list-style-type: none"> • Replacement of damaged insulation installed in Washery Building; • Closure of façade openings in the Washery to Stockpile Transfer and/or Washery buildings; • Options to assess the feasibility and possibility of reducing noise emissions from the Bradford breaker; • Options to reduce noise emissions from the tracked dozer during night hours; and • A program for regular inspections of site plant including the dozer to ensure that the installed noise suppression controls are functioning and require no 	Noise reduction program developed in the period nominated. The NRP discussed and made recommendations for dozers on the stockpiles but didn't address Washery noise or the Bradford breaker but these items were not identified in the attended noise monitoring conducted to support the NRP. The key issue identified was the dozers and this is addressed. All of which is academic until the site resumes operations at which point the noise issues would require further review.	Non-compliant
	The SNRP will review and/or develop procedures to manage noise complaints from residents: <ul style="list-style-type: none"> • Procedures for residents to contact the site environmental manager in regard to noise complaints or requests for information; • Procedures to inform residents of actions implemented following receipt of noise complaints; and • Procedures for the recording, investigation and follow up of noise complaints, and if required, site attended noise audits to identify additional procedures to minimise noise emissions from the Project area. 	The Noise reduction program did not address complaints handling	Non-compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
Groundwater			
13	The Proponent shall monitor groundwater in the vicinity of Longwalls 29 to 31 in accordance with the Surface and Groundwater Response Strategy and Underground Mine Water Make Monitoring Program to provide an ongoing assessment of the impact of mining works on the groundwater regime, enable early detection of potential adverse impacts, and to monitor the recovery of the groundwater system following completion of mining.	The monitoring is being conducted as required	Compliant
14	In the event that the monitoring of ground or surface water indicates an exceedence of trigger levels, procedures contained within the Surface and Groundwater Response Strategy would be implemented.	Monitoring is continuing however a TARP has not been triggered as yet.	Not triggered
15	prior to mining of the Remnant Areas, the Proponent shall review and update the Surface and Groundwater Response Strategy and Underground Mine Water Make Monitoring Program for implementation upon commencement of mining in these areas.	Material not extracted and there are no current extraction plans in place for the remnant areas.	Not triggered
Mine Closure and Rehabilitation			
16	The Proponent shall progressively rehabilitate the site over the life of the mine, rehabilitate all disturbed lands within the Project Area in accordance with the reasonable requirements of DII prior to relinquishment of mining leases.	Site has been progressively rehabilitated. DRE have not imposed any closure criteria and there has been no relinquishment of mining leases	Not triggered
17	The Proponent shall prepare and implement a Rehabilitation Monitoring Methodology and Program for the Project within 12 months of project approval.	Prepared and submitted within 12 months however discussion with agencies extended the submission period to outside of 12 months.	Compliant
	<ul style="list-style-type: none"> Investigation of ways to minimise the adverse socio-economic effects associated with the conclusion of Baal Bone, including reduction in local and regional employment levels; and Description of measures that would be implemented to minimise or manage the on-going environmental effects of Baal Bone. 	<p>Social Impact Assessment (May 2008) by Coakes Consulting was sighted and addresses these requirements.</p> <p>Mine Closure Plan has not been completed yet and the site is currently being managed as though it is operating in terms of environmental measures.</p>	<p>Compliant</p> <p>Not triggered</p>
Tailing and Reject Management			
18	The Proponent will implement the following operational controls to mitigate potential impacts associated with the Reject Emplacement Area:	Noted	
	• Regular visual inspections of the emplacement area including specific attention to the structural integrity of the embankment and the flow of leachate;	Regular inspection on an annual basis occurs.	Compliant
	• All dams and associated pipelines at Baal Bone will be inspected on a daily, weekly and monthly basis as required; and	Pipelines and dams have been inspected on a weekly basis (work orders).	Compliant
	• Operation of transport in the vicinity according to regulations.	Operational phase only.	Not Triggered

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
19	Prior to constructing any future dams with a catastrophic or high risk ranking, the Proponent will ensure that the following actions have been undertaken in relation to the dam:	Not in the audit period	Not triggered
	• the dam has undergone an appropriate engineering design (e.g. relevant dam safety committee concurrence); or	Not in the audit period	Not triggered
	• the dam has a specific management plan including operational requirements and monitoring program. The monitoring program may be incorporated into the regular inspection checklists, however, the person who is to inspect the catastrophic or high risk dams must be competent to do so.	Not in the audit period	Not triggered
Traffic - Coal Road Haulage			
20	Haulage of coal from Baal Bone by public road will not exceed 900,000 tonnes per annum (tpa) with a maximum daily rate of 6,000 tonnes.	Not in the audit period	Not triggered
21	Prior to resumption of haulage of coal by road to the power stations from the Colliery, the Proponent shall undertake a review of the existing Road Haulage Management Plan and update the plan as required, for implementation. Once implemented the Road Haulage Management Plan is to be reviewed annually and updated as required.	Not in the audit period	Not triggered
22	Prior to resumption of haulage of coal by road to the power stations from the Colliery, the Proponent shall undertake a review of the existing Truck Management Plan, and update the plan as required, for implementation. Once implemented, the Truck Management Plan is to be reviewed annually and updated as required.	Not in the audit period	Not triggered
	Following the installation of road signage, the Proponent shall undertake an annual review of road accident statistics along the Castlereagh Highway between Baal Bone Colliery and Mount Piper and Wallerawang Power Stations to monitor the effectiveness of road signage and review the implementation of other mitigation measures as appropriate.	Not in the audit period	Not triggered
23	The Proponent shall finalise all outstanding noise insulation works to the remaining four residences in Cullen Bullen identified in the Road Haulage Management Plan, being 2541 Castlereagh Highway, 42 Castlereagh Highway, 46 Castlereagh Highway, 2508 Castlereagh Highway, prior to resuming road haulage of coal to the power stations. The Proponent shall meet all reasonable costs required to implement these works.	Not in the audit period	Not triggered

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
Air Quality			
24	The Proponent shall implement the following existing operational practices in the Surface Infrastructure Area to minimise air quality impacts to the surrounding environment as contained in the Mine Operations Plan:	Site is not longer operation and subsequently controls are not deemed to be necessary and were not assessed as a part of this audit. Activities on site do not impact on air quality.	Not Triggered
	•Conveyors and transfer points are either fully or partially enclosed on the side of the prevailing winds;	Site is not longer operation and subsequently controls are not deemed to be necessary and were not assessed as a part of this audit. Activities on site do not impact on air quality.	Not Triggered
	•Spraying of stockpiles to minimise dust;	Site is not longer operation and subsequently controls are not deemed to be necessary and were not assessed as a part of this audit. Activities on site do not impact on air quality.	Not Triggered
	•Watering of haul road to minimise dust;	Site is not longer operation and subsequently controls are not deemed to be necessary and were not assessed as a part of this audit. Activities on site do not impact on air quality.	Not Triggered
	•Regular cleaning of areas that may generate dust; and	Site is not longer operation and subsequently controls are not deemed to be necessary and were not assessed as a part of this audit. Activities on site do not impact on air quality.	Not Triggered
	•Appropriate ventilation of operational mine shafts.	Site is not longer operation and subsequently controls are not deemed to be necessary and were not assessed as a part of this audit. Activities on site do not impact on air quality.	Not Triggered
25	The Proponent will monitor potential impacts to air quality resulting from dust in accordance with the Environment Protection Licence (EPL) applying to the Project area and report any potential impacts according to the requirements of the EPL.	EPL Annual Return 2012 states: "Breach of M2.2; 6 dust deposition gauges exposed outside the standard on various occasions due to accessibility issues; 1 sample broken in transit; significant rainfall prevented access to 2 gauges. EPA has written to licensee." November and December 2013 samples were not collected within the required time.	Non-compliant
26	The Proponent shall operate the premises to seek to avoid exceedences of air quality impact assessment criteria identified in Section 15.3 the EA.	Air quality results have been checked in the AEMR and deemed to be compliant.	Compliant
Greenhouse Gas			
27	The Proponent will continue to seek to provide maximum resource extraction with maximum efficiency and will assess and consider implementation, where feasible, of GHG and energy management and mitigation initiatives during the design, operation and decommissioning of the mine.	Operations have ceased and subsequently reduced the overall electricity consumption of the site.	Compliant
Geology and Soils			
28	The Proponent shall continue to undertake regular inspections of the surface features in accordance with the Land Management Plan for Longwalls 29 to 31 to address potential impacts on soils and geology.	Inspection were 6-monthly and status reports were provided 4-monthly.	Compliant

Clause	Requirement	Evidence	Audit Finding
Project Approval 09/0178			
Flora and Fauna			
29	The Proponent shall continue to implement ongoing monitoring and management of quadrats in the vicinity of Longwalls 29 and 31 and Coxs River Swamp in accordance with the Environmental Monitoring Program contained within the SMP.	The last flora and fauna monitoring was completed in 2011 and ongoing monitoring of the quadrats was not required following the cessation of mining. Not in the audit period.	Not triggered
30	Prior to and during mining of the Remnant Areas, the Proponent shall implement ongoing monitoring of fauna populations and wildlife habitats within and in the vicinity of the Remnant Areas. The details of the monitoring requirements are to be developed in accordance with the SMP for the Remnant Areas.	Not in the audit period	Not triggered
31	The Proponent shall use best endeavours to incorporate Capertee Stringybark in its future rehabilitation works.	Red Stringybark was used however Capertee Stringybark is planned to be used in future seed mixes.	Not triggered
Indigenous Heritage			
32	The Proponent shall continue to manage the Aboriginal rock shelter (45-1-2665) in the vicinity of Longwalls 29 to 31 in accordance with the current Aboriginal Heritage Management Plan. If further sites are identified during the heritage surveys of the Remnant Areas, the Proponent will update the Aboriginal Heritage Management Plan to include any additional Indigenous sites requiring management.	Management measure are outlined in the Aboriginal Cultural Heritage Management Plan. No further sites were identified during the audit period.	Not triggered
33	Prior to the mining of the Remnant Areas, the Proponent shall undertake a further full heritage survey to: <ul style="list-style-type: none"> ascertain the present condition of the site known as Ben Bullen Creek 1 (Site ID 45-1-0240); properly assess this region for its heritage significance; and develop a management strategy in consultation with the stakeholders to manage the subsidence impacts of the mining of the Remnant Areas on any cultural heritage items identified in the heritage survey. 	Not in the audit period	Not triggered
34	During the course of mining, if any 'relics' or other Aboriginal sites are identified, work in that area will cease and the DECC and respective Aboriginal community organisations or Local Aboriginal Land Council will be contacted to discuss how to proceed.	No evidence of relics has been found on the site	Not triggered
Land Use			
35	The Proponent shall continue to implement the current Land Management Plan and Public Safety Management Plan which form part of the SMP for Longwalls 29 to 31.	Land Management Plan and Public safety Management Plan were reviewed by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding																							
Environmental Protection Licence 765 (August 2013)																										
1. ADMINISTRATIVE CONDITIONS																										
A1 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.	Noted																								
	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.	The scale has not been exceeded.	Compliant																							
	<table border="1"> <thead> <tr> <th>Scheduled Activity</th> <th>Fee Based Activity</th> <th>Scale</th> </tr> </thead> <tbody> <tr> <td>Coal Works</td> <td>Coal works</td> <td>0 - 2000000 T handled</td> </tr> <tr> <td>Mining for Coal</td> <td>Mining for coal</td> <td>0 - 500000 T produced</td> </tr> </tbody> </table>	Scheduled Activity	Fee Based Activity	Scale	Coal Works	Coal works	0 - 2000000 T handled	Mining for Coal	Mining for coal	0 - 500000 T produced	Site complies with these limits	Compliant														
Scheduled Activity	Fee Based Activity	Scale																								
Coal Works	Coal works	0 - 2000000 T handled																								
Mining for Coal	Mining for coal	0 - 500000 T produced																								
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	Noted																								
2. DICHARGES TO AIR AND WATER AND APPLICATIONS TO LAND																										
P1 Location of monitoring/discharge points and areas																										
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.	Noted																								
	<table border="1"> <thead> <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>7</td> <td>Dust Monitoring</td> <td></td> <td>Monitoring site labelled as AQ1 in the figure "Baal Bone Colliery - 2011 Licenced Monitoring Sites" dated 17 January 2012.</td> </tr> <tr> <td>13</td> <td>Dust Monitoring and Weather Monitoring</td> <td></td> <td>Monitoring site labelled as AQ2 in the figure "Baal Bone Colliery - 2011 Licenced Monitoring Sites" dated 17 January 2012.</td> </tr> <tr> <td>14</td> <td>Dust Monitoring</td> <td></td> <td>Monitoring site labelled as AQ3 in the figure "Baal Bone Colliery - 2011 Licenced Monitoring Sites" dated 17 January 2012.</td> </tr> <tr> <td>15</td> <td>Dust Monitoring</td> <td></td> <td>Monitoring site labelled as AQ4 in the figure "Baal Bone Colliery - 2011 Licenced Monitoring Sites" dated 17 January 2012.</td> </tr> <tr> <td>16</td> <td>Dust Monitoring</td> <td></td> <td>Monitoring site labelled as AQ5 in the figure "Baal Bone Colliery - 2011 Licenced Monitoring Sites" dated 17 January 2012.</td> </tr> </tbody> </table>	EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	7	Dust Monitoring		Monitoring site labelled as AQ1 in the figure "Baal Bone Colliery - 2011 Licenced Monitoring Sites" dated 17 January 2012.	13	Dust Monitoring and Weather Monitoring		Monitoring site labelled as AQ2 in the figure "Baal Bone Colliery - 2011 Licenced Monitoring Sites" dated 17 January 2012.	14	Dust Monitoring		Monitoring site labelled as AQ3 in the figure "Baal Bone Colliery - 2011 Licenced Monitoring Sites" dated 17 January 2012.	15	Dust Monitoring		Monitoring site labelled as AQ4 in the figure "Baal Bone Colliery - 2011 Licenced Monitoring Sites" dated 17 January 2012.	16	Dust Monitoring		Monitoring site labelled as AQ5 in the figure "Baal Bone Colliery - 2011 Licenced Monitoring Sites" dated 17 January 2012.	PM ₁₀ and TSP have ceased being monitored with the permission of the regulators (EPA and DP&I)
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description																							
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P1.2	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.	Noted																								

P1.3	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.	Noted																
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3. LIMIT CONDITIONS																		
L1 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.	Background levels of iron in the receiving waters are relatively high but the discharge levels of iron are within the range of natural variation in the background levels of iron.	Compliant															
L2 Concentration limits																		
L2.1	For each monitoring/discharge point or utilisation area specified in the table 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.	EPL Annual Return 2012 states: "Limit exceeded for Iron in September 2012 at LDP6. No apparent cause. Continued to monitor results. Follow-up investigation to review water monitoring results." TSS exceedance for LDP3 and LDP6 in Feb 2013.	Non-compliant															
L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	pH analyses are within the specified ranges.	Compliant															
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.	Noted																

L2.4	Water and/or Land Concentration Limits	Noted																														
	<p>POINT 11</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of Measure</th> <th>50 percentile concentration limit</th> <th>90 percentile concentration limit</th> <th>3DGM concentration limit</th> <th>100 percentile concentration limit</th> </tr> </thead> <tbody> <tr> <td>Iron (dissolved)</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>1.0</td> </tr> <tr> <td>Oil and Grease</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>10</td> </tr> <tr> <td>pH</td> <td>pH</td> <td></td> <td></td> <td></td> <td>6.5-8.5</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>50</td> </tr> </tbody> </table>	Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Iron (dissolved)	milligrams per litre				1.0	Oil and Grease	milligrams per litre				10	pH	pH				6.5-8.5	Total suspended solids	milligrams per litre				50	LDP1 (Point 11) has had no exceedences.
Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit																											
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Total suspended solids	milligrams per litre				50																											
L3 Waste																																
L3.1	<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>	No waste received	Compliant																													
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L4 Noise limits																					
L4.1	Noise generated from the premises must not exceed the noise limits in the table below. The locations referred to in the table below are indicated on Project Approval 09_0178, Baal Bone Coal Project, Appendix 2, Figure 2 - Noise Receivers.	Audits have found no exceedences of noise limits	Compliant																		
	<table border="1"> <thead> <tr> <th>Location</th> <th>All Periods</th> <th>Night</th> </tr> <tr> <th></th> <th>dB(A) LAeq (15 min)</th> <th>dB(A) LA1 (1 min)</th> </tr> </thead> <tbody> <tr> <td>R1 (Muldoon residence Lot95 DP755759 Ben Bullen)</td> <td>46</td> <td>47</td> </tr> <tr> <td>R2 (Speirs residence Lot4 DP734531 Ben Bullen)</td> <td>41</td> <td>48</td> </tr> <tr> <td>R3 (Desch residence Lot3 DP734531 Ben Bullen)</td> <td>41</td> <td>48</td> </tr> <tr> <td>All other privately-owned land</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	Location	All Periods	Night		dB(A) LAeq (15 min)	dB(A) LA1 (1 min)	R1 (Muldoon residence Lot95 DP755759 Ben Bullen)	46	47	R2 (Speirs residence Lot4 DP734531 Ben Bullen)	41	48	R3 (Desch residence Lot3 DP734531 Ben Bullen)	41	48	All other privately-owned land	35	45	Audits have found no exceedences of noise limits	Compliant
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All other privately-owned land	35	45																			
<i>Note: The above noise limits do not apply at properties where the licensee has a written agreement with the landowner regarding the applicable noise limit.</i>		Noted																			
L4.2	For the purposes of condition L4.1: a) All Periods refers to day, evening and night time; and b) Night is defined as the period between 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.	Noted																			
L4.3	Noise limits set out in condition L4.1 apply under all meteorological conditions except for the following: a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or c) Stability category G temperature inversion conditions.	Noted																			
L4.4	For the purposes of condition L4.3: a) Data recorded by the meteorological station identified as EPA Licence Point 13 must be used to determine meteorological conditions; and	Noted																			
	b) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.	No exceedences during the audit period but Atkins Acoustics confirmed the methodology would be compliant if it were required.	Not triggered																		

L4.5	To determine compliance: a) with the Leq(15 minute) noise limits in condition L4.1, the noise measurement equipment must be located: (i) approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or (ii) within 30 metres of a dwelling facade, but not closer than 3 metres where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable (iii) within approximately 50 metres of the boundary of a National Park or Nature Reserve.	Noise measurement equipment are located approximately on the property boundary.	Compliant
	b) with the noise limits in condition L4.1, the noise measurement equipment must be located: (i) at the most affected point at a location where there is no dwelling at the location; or the property boundary closest to the premises; or (ii) at the most affected point within an area at a location prescribed by condition L4.5(a).	Noise measurement equipment are located approximately on the property boundary.	Compliant
L4.6	A non-compliance of condition L4.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured: a) at a location other than an area prescribed by condition L4.5(a); and/or b) at a point other than the most affected point at a location.	Noted by the auditors	Not triggered
L4.7	For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.	Reference not in the report from Atkins Acoustics, followed up with contractor, work is compliant, reference to INP added post audit.	Compliant
L5 BLASTING			
L5.1	The overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	No blasting occurred at the site during the audit period	Not triggered
L5.2	The overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	No blasting occurred at the site during the audit period	Not triggered
L5.3	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	No blasting occurred at the site during the audit period	Not triggered

L5.4	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	No blasting occurred at the site during the audit period	Not triggered
	<i>Note: 1. The airblast overpressure and ground vibration levels in conditions L5.1 to L5.4 do not apply at noise sensitive locations that are owned by the licensee or that are subject to a private agreement, relating to airblast overpressure and ground vibration levels, between the licensee and the land owner. 2. "Noise sensitive locations" include buildings used as a residence, hospital, school, child care centre, place of public worship and nursing home. A noise sensitive location includes the land within 30 metres of the building.</i>	No blasting occurred at the site during the audit period	Not triggered
4. OPERATING CONDITIONS			
O1 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.	This audit has determined that the operation of the site is conducted competently	Compliant
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.	Reviewed the Maintenance planning for the site, specifically reviewed pipe and pump maintenance. There is a comprehensive system in place and there was no evidence of poorly maintained equipment during the site inspection.	Compliant
O3 Dust			
O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	The site is now mothballed and there is little opportunity for dust generation apart from light vehicle movements.	Compliant

5. MONITORING AND RECORDING CONDITIONS										
M1 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.	Noted								
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;	Records sighted by the audit team	Compliant							
	b) kept for at least 4 years after the monitoring or event to which they relate took place; and	Noise monitoring commenced in 2011, records for that period reviewed.	Compliant							
	c) produced in a legible form to any authorised officer of the EPA who asks to see them.	No requests for evidence have been made during the audit period.	Not triggered							
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;	Auditors reviewed the records and confirmed as compliant	Compliant							
	b) the time(s) at which the sample was collected;	Auditors reviewed the records and confirmed as compliant	Compliant							
	c) the point at which the sample was taken; and	Auditors reviewed the records and confirmed as compliant	Compliant							
	d) the name of the person who collected the sample.	Auditors reviewed the records and confirmed as compliant	Compliant							
M2 Requirement to monitor concentrations 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:	Noted								
M2.2	Air Monitoring Requirements	Noted								
	<p>POINT 7,13,14,15,16</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>Particulates - Deposited Matter</td> <td>grams per square metre per month</td> <td>Once a month (min. of 4 weeks)</td> <td>Australian Standard 3580.10.1-2003</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Once a month (min. of 4 weeks)	Australian Standard 3580.10.1-2003	EPL Annual Return 2012 states: "Breach of M2.2; 6 dust deposition gauges exposed outside the standard on various occasions due to accessibility issues; 1 sample broken in transit; significant rainfall prevented access to 2 gauges. EPA has written to licensee." November and December 2013 samples were not collected within the required time.
Pollutant	Units of measure	Frequency	Sampling Method							
Particulates - Deposited Matter	grams per square metre per month	Once a month (min. of 4 weeks)	Australian Standard 3580.10.1-2003							

Water and/ or Land Monitoring Requirements		Noted																																	
M2.3	<p>POINT 2</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>BOD</td> <td>milligrams per litre</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> <tr> <td>Faecal Coliforms</td> <td>colony forming units per 100 millilitres</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> <tr> <td>Nitrogen (total)</td> <td>milligrams per litre</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> <tr> <td>Oil and Grease</td> <td>milligrams per litre</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> <tr> <td>pH</td> <td>pH</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> <tr> <td>Phosphorus (total)</td> <td>milligrams per litre</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	BOD	milligrams per litre	Monthly during discharge	Grab sample	Faecal Coliforms	colony forming units per 100 millilitres	Monthly during discharge	Grab sample	Nitrogen (total)	milligrams per litre	Monthly during discharge	Grab sample	Oil and Grease	milligrams per litre	Monthly during discharge	Grab sample	pH	pH	Monthly during discharge	Grab sample	Phosphorus (total)	milligrams per litre	Monthly during discharge	Grab sample	Total suspended solids	milligrams per litre	Monthly during discharge	Grab sample	<p>EPL Annual Return 2012 states: "Breach of M2.3 due to accessibility issues. Water sampling carried out at water monitoring point downstream of sample points. Provided contractor with procedures to be followed in the event of site access issues. EPA has written to licensee." No non-compliances in 2013. No non-compliances in 2013.</p>	<p>Non-compliant</p>
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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	ALS have confirmed (post audit) that their methodologies meet EPA requirements and sampling and analysis methods.	Compliant
	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	ALS have confirmed (post audit) that their methodologies meet EPA requirements and sampling and analysis methods.	Compliant
	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.	ALS have confirmed (post audit) that their methodologies meet EPA requirements and sampling and analysis methods.	Compliant
	<i>Note: 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>	ALS have confirmed (post audit) that their methodologies meet EPA requirements and sampling and analysis methods.	Compliant
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.	Noted, utilisation areas are specified in this license.	Compliant
M4 Recording of pollution controls			
M4.1	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.	A Community Complaints Register is updated quarterly and is legible	Compliant
M4.2	The record must include details of the following: a) the date and time of the complaint;	Community Complaints records reviewed and is compliant	Compliant
	b) the method by which the complaint was made;	Community Complaints records reviewed and is compliant	Compliant
	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;	Community Complaints records reviewed and is compliant	Compliant
	d) the nature of the complaint;	Community Complaints records reviewed and is compliant	Compliant
	e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and	Community Complaints records reviewed and is compliant	Compliant
	f) if no action was taken by the licensee, the reasons why no action was taken.	This has not occurred	Not triggered
M4.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Community Complaints records reviewed and is compliant	Compliant

M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.	No requests for evidence have been made during the audit period.	Compliant
M5 Telephone complaints line			
M5.1	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.	A telephone line exists (02 6350 6900).	Compliant
M5.2	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.	The telephone number is advertised on Baal Bone's website and in the community newsletter.	Compliant
M5.3	The preceding two conditions do not apply until 3 months after: a) the date of the issue of this licence or	Before the audit period for the first license with this requirement	Not applicable
	b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.	Noted	Not applicable
M6 Blasting			
M6.1	To determine compliance with conditions L5.1 to L5.4: a) Airblast overpressure and ground vibration levels must be measured and electronically recorded at the nearest or most affected residence or sensitive noise location such as a school or hospital that is most likely to be affected by the blast - for all blasts carried out in or on the premises; and	No blasting occurred at the site during the audit period	Not triggered
	b) Instrumentation used to measure the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006	No blasting occurred at the site during the audit period	Not triggered
6. REPORTING CONDITIONS			
R1 Annual return documents			
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: a) a Statement of Compliance; and	Reviewed 2012 Annual Return, 2013 not yet prepared. Statement of Compliance Included.	Compliant
	b) a Monitoring and Complaints Summary.	Included	Compliant
	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.	Noted	
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	Noted	Compliant

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.	Noted	Not triggered
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.	Noted	Not triggered
R1.5	The Annual Return for the reporting period must be supplied to the EPA 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').	2012 Annual Return lodged on 22 February 2013 and the 2011 Annual Return was lodged on 24 February 2012. Cover letters sighted were compliant with the requirements	Compliant
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.	Evidence was reviewed by the audit team and determined to be compliant	Compliant
R1.7	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or	Evidence was reviewed by the audit team and determined to be compliant	Compliant
	b) by a person approved in writing by the EPA to sign on behalf of the licence holder	Noted	
R1.8	A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.	Noted	
R2 Notification of environmental harm			
	<i>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.</i>	Noted	
R1.1	Notifications must be made by telephoning the Environment Line service on 131 555.	Noted	Not triggered
R1.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	Noted	Not triggered

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	Noted	Not triggered
	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.	Noted	Not triggered
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.	Noted	Not triggered
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.	Noted	Not triggered
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.	Noted	Not triggered

7. GENERAL CONDITIONS			
G1 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.	Copy of the licence were seen by the audit team	Compliant
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	Noted by the auditors	Not triggered
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	Available on the intranet/internet(EPA)/Internet (Baal Bone site).	Compliant
8. SPECIAL CONDITIONS			
E1 Recommencement of mining			
	<i>Note: The EPA understands that the licensee has ceased coal mining activities at the premises. It is the EPA's intention to include a Pollution Reduction Program that requires the licensee to conduct a site specific determination of best management practices to reduce particulate emissions from coal mining activities, if coal mining recommences.</i>	Noted	
E1.1	The licensee must notify the EPA's Manager, Central West Region in writing prior to the recommencement of mining for coal or handling of coal on the premises.	Noted	Not triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
Methods of Operation			
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.	ML1389(1)(1); ML1302(1)(a); CL391(1)	No coal was extracted during the audit period.	Not Triggered
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.	ML1389(2)(2); ML1302(1)(b)	DTIRIS DRE approval of extraction plan and SMP and Part 3A Approval	Compliant
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.		SMP	Compliant
(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 associated colliery holding unless with consent of the Minister and subject to such conditions as the Minister may impose.	ML1389(3)(3)	Not in the audit period	Not Triggered
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 associated colliery holding 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.		Not in the audit period	Not Triggered
a) The lease holder shall not commence box cutting, underground bulk sampling operations or surface bulk sampling operations except with the written consent of the Minister and subject to such conditions as the Minister may impose including any conditions requiring the lodgement of a bond or other security for rehabilitation of the area the subject of or affected by such operations.	ML1389(4)(4)	Not in the audit period	Not Triggered
b) Where the lease holder desires to commence box cutting, underground bulk sampling operations or surface bulk sampling operations the licence holder shall furnish to the Inspector information in accordance with Instructions for Box Cutting Operations, Instructions for Underground Bulk Sampling Operations or Instructions for Surface Bulk Sampling Operations.		Not in the audit period	Not Triggered
c) If required by the inspector and within such time as may be stipulated by the Inspector the lease holder shall erect and maintain to the satisfaction of the inspector a fence around the area subject of or affected by operations.		Fence sighted	Compliant

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
d) When required by the Minister and within such time as may be stipulated by the Minister the lease holder shall rehabilitate each and every section of the area the subject of or affected by the operations to the satisfaction of the Minister and in accordance with such conditions as may be imposed by the Minister.		AEMR specifies rehab progress and plans	Compliant
e) The minister may vary or revoke such consent.		Noted	
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.	ML1389(11)(20)	Noted, no such request in the audit period	Not Triggered
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.		Annual AEMRs have been prepared, 2012 is available on Baal Bone's website.	Compliant
b) The date by which the Report must be submitted will be determined by the Minister after consulting with the lease holder.		Noted	
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.	ML1389(12)(21)	The AEMRs meet these requirements	Compliant
d) The Minister may, by notice in writing, direct the lease holder to undertake any operations or remedial actions in such manner and within such 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.		Not within the audit period	Not Triggered
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.		Not within the audit period	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
Within a period of three months from the .date of this authority, 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 and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area.	ML1389(51)(47); MPL261(1); CCL749(1); ML1607(1); CL391(7); ML1302(81)	Sighted agreement with State Forests	Compliant
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, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.		Not Applicable	
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:- (i) cease working the lease; or (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.	MPL261(10); CCL749(10); MPL1607(10)	Noted, this has not happened in the audit period	Not Triggered
b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.		Noted, this has not happened in the audit period	Not Triggered
c) A direction referred to in this condition may be served on the Mine Manager.		Noted, this has not happened in the audit period	Not Triggered
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.	MPL261(16); CCL749(16); MPL1607(16)	Noted, note the SE Vent Fan rehab complies with these requirements	Compliant
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.	CCL749(30)	Letter to Minister re initiation of Suspended operations sighted 31 August 2011.	Compliant
(c) If directed so to do by the Minister and within such time as may be stipulated by the Minister the registered holder shall commence underground mining operations within the subject area and the registered holder shall thereafter carry out such operations to the Ministers satisfaction.	ML1302(1)	This has not occurred in the audit period	Not Triggered
(d) Where the registered holder desires to commence and to carry out underground mining operations within the subject area or where the Minister notifies the registered holder that he proposes to issue a direction pursuant to paragraph (c) of this condition the registered 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.		This has not occurred in the audit period	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
(A) The registered holder shall not carry out open cut workings or surface mining operations within the subject area except with the consent of the Minister and subject to such conditions as the Minister deems necessary .	ML1302(2)	This has not occurred	Compliant
(B) Where the registered holder intends to carry out open cut workings or surface mining operations within the subject area he shall furnish to the District Inspector of Coal Mines:-		Noted	
(a) two plans in triplicate (entitled "plan 1" and "Plan 2") certified by a person who is registered as a Surveyor under the Surveyors Act, 1929 or who is the holder of a surveyor's certificate of competency granted under the Coal Mines Regulation Act, or such other person as may be approved by the Director-General to a scale of 1:4000 or such other scale as may be required or approved by the Director-General showing on:-		This has not occurred	Not Triggered
Plan 1: (i) the area and dimensions of each section of land proposed to be used for such workings or operations; (ii) the approximate depth of top soil in each section of the land proposed to be used for such workings or operations; and		This has not occurred	Not Triggered
plan 2: (i) the approximate contours to which the surface ,shall be rehabilitated; (ii) the methods proposed to be adopted to prevent effluent or contaminated waters discharging from works or operations the subject of or associated with such workings or operations onto surrounding areas or into creeks, rivers, streams or watercourses;		This has not occurred	Not Triggered
(b) details in writing of the manner in which it is proposed to remove, store and replace the top soil;		This has not occurred	Not Triggered
(c) details in writing of grasses, plants, shrubs and/or trees proposed to be planted on the land when such work or operations have been completed;		This has not occurred	Not Triggered
(d) such other details including plans and photographs as the said District Inspector of Coal Mines may require, provided that if any question shall arise as to whether any such details should be furnished by the registered holder the matter shall be decided by the Chief Inspector of Coal Mines whose decision shall be final.		This has not occurred	Not Triggered
(a)In the event of the registered bolder carrying out open cut workings or surface mining operations or the removal of overburden within the lands overlaying the subject area the registered holder shall not extend any such workings or operations or removal into the subject area unless with the consent of the Minister first had and obtained and subject to such conditions as he may impose.		This has not occurred	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
(b) In the event that the registered holder applies, pursuant to the foregoing Condition No 2, for the Minister's consent to carry out open cut workings or surface mining operations in any part or parts of the land overlaying the subject area the plans and details shall also relate to any proposed Open cut workings or surface mining operations within the subject area and no such workings or operations shall be carried out 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.	ML1302(3)	This has not occurred	Not Triggered
Shafts, Drifts, Adits			
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.	ML 1389(5)(14)	SE Vent Fan closure	Compliant
The registered holder shall comply with the provisions of the Coal Mines Regulation Act 1982 and the Regulations thereunder concerning the closing of any shafts and outlets within the subject area and the surface lands the subject of or affected by any such shafts and outlets upon their closure shall be rehabilitated to the satisfaction of the Minister.	ML1302(11)	SE Vent Fan closure	Compliant
(a) Any shaft on the subject area, shall be used for ventilation purposes, only.	ML1302(12)	SE Vent Fan closure	Compliant
(b) Provided however that the Minister may consent, subject to such conditions as he may impose, to the use of any such shaft for other than ventilation purposes.		Not Applicable	
The registered holder shall comply with any direction given or which may be given by the Minister regarding the dumping, depositing or removal of any material extracted during the construction of any shaft, drift or adit on the subject area.	ML1302(13)	This has not occurred	Not Triggered
Dumps, Dust, Conveyor Systems and Coal Preparation Plant			
The lease holder shall comply with any direction, given or which may be given by the inspector regarding the dumping, depositing or removal of materials extracted as well as the stabilisation and revegetation of any dumps or coal, minerals, mine residues, tailings or overburden situated on the subject area to the associated colliery holding.	ML1389(6)(15); ML1302(14)	This has not occurred	Not Triggered
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.	ML1389(7)(16); ML1302(17)	This has not occurred	Not Triggered
The lease holder shall take such precautions as are necessary to abate any dust nuisance.	ML1389(8)(17); ML1302(20)	When operational, the site complied with this requirement, now mothballed, dust is not an issue.	Compliant

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
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.	ML1302(15)	Noted but has not occurred in the audit period	Not Triggered
The registered 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.	ML1302(16)	Noted but has not occurred in the audit period	Not Triggered
The registered holder shall take such precautions as are necessary, to abate any dust nuisance and shall comply with any direction, including directions regarding the sealing of roads and car parks, given or which may be given in this regard by the Minister.	ML1302(21)	Noted but has not occurred in the audit period	Not Triggered
The registered holder shall carry out regular inspections of above-g conveyor systems and shall promptly remove any spillages and comply any directions given or which may be given by the Minister in this regard.	ML1302(22)	Noted but has not occurred in the audit period	Not Triggered
Mining Operations Plan (MOP)			
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.	MPL261(3); CCL749(3); MPL1607(3)	MOP approved	Compliant
b)The MOP must: 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 on site in order to prevent and minimise harm to the environment; v) reflect the conditions of approval under: 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 this lease; and vi) have regard to any relevant guidelines adopted by the Director-General,		MOP details these issues and the mines approach to them	Compliant
c)The leaseholder may apply to the Director.-General to amend an approved MOP at any time.		MOP revised in 2013	Compliant

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
d)it is not a breach of this condition if: 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.		Not Applicable	
(e) A MOP ceases to have affect 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.		Noted	
Environmental Harm and Pollution			
The leaseholder 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.	MPL261(2); CCL749(2); MPL1607(2)	Noted	Compliant
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.	ML1389(18)(27); ML1302(19); ML1302(40)	No such instructions given, management plans and procedures ensure the rest of this is complied with	Compliant
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.	CCL749(18); MPL261(18); MPL1607(18)	No such instructions given, management plans and procedures ensure the rest of this is complied with	Compliant
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.	ML1389(22)(31); ML1302(52)	No such instructions given, management plans and procedures ensure the rest of this is complied with	Compliant
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.	ML1302(18)	All sed dams detailed in MOP and WMP. None constructed within the audit period	Compliant

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
Where the registered 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 registered 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.	ML1302(39)	Not applicable within the audit period	Not Triggered
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 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.	ML1302(41)	No such instructions given, management plans and procedures ensure the rest of this is complied with	Compliant
If the registered holder is using or about to use any process, or to carry out any works, which in the opinion of the District Inspector of Coal Mines is likely to pollute. or its Catchment Area the registered holder upon service of notice in writing served under the hand of the District Inspector of Coal Mines so to do shall:-	ML1302(42)	No such instructions given, management plans and procedures ensure the rest of this is complied with	Compliant
(a) Discontinue the use of such process or works within twenty-four (24) hours; or		No such instructions given, management plans and procedures ensure the rest of this is complied with	Compliant
(b) thereafter refrain from adopting such process or works at any time, as the case may require.		No such instructions given, management plans and procedures ensure the rest of this is complied with	Compliant
Provided however that the Chief Inspector of Coal Mines may confirm, vary or revoke any such notice.		No such instructions given, management plans and procedures ensure the rest of this is complied with	Compliant
In the event of operations disturbing the original bed of the registered holder, at his own expense, shall provide to the satisfaction of an alternate route for the in a position as required by 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 the to its original position.	ML1302(43)	No such instructions given, management plans and procedures ensure the rest of this is complied with	Compliant
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.	ML1302(53)	Observed in site inspection and in LMP and MOP	Compliant

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
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.	ML1302(54)	Observed in site inspection and in LMP and MOP	Compliant
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.	ML1302(55)	Observed in site inspection and in AEMR, LMP and MOP	Compliant
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.	ML1302(56)	Observed in site inspection and in AEMR, LMP and MOP	Compliant
Reporting			
The lease holder must lodge Environmental Management Reports (EMR) with the Director- General annually or at dates otherwise directed by the Director-General.	MPL261(4); CCL749(4); MPL1607(4)	AEMRs are prepared annually	Compliant
The EMR must:		Noted	
a) report against compliance with the MOP;		AEMRs do this	Compliant
b) report on progress in respect of rehabilitation completion criteria;	MPL261(5); CCL749(5); MPL1607(5)	2012 reported progress of rehabilitation (section 5)	Compliant
c) report on the extent of compliance with regulatory requirements; and		2012 AEMR reported non-compliances (3.4.2)	Compliant
d) have regard to any relevant guidelines adopted by the Director-General;		AEMRs do this	Compliant
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.	MPL261(6); CCL749(6); MPL1607(6)	Noted, not required during the audit period	Not Triggered
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:		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
b)Details of expenditure incurred in conducting that exploration;	CCL749(11)	No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
c) A summary of all geological findings acquired through mining or development evaluation activities;		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
d)Particulars of exploration proposed to be conducted in the next twelve months period;		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
e)All plans, maps, sections and other data necessary to satisfactorily interpret the report.		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
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.	CCL749(12)	No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
Rehabilitation			
Disturbed Land must be rehabilitated to a sustainable/agreed end land use to the satisfaction of the Director-General	MPL261(7); CCL749(7)	AEMR and Project Approval	Compliant
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.	ML1389(9)(18); CCL749(20); MPL1607(20); MPL261(20); ML1302(26)	Noted	Not Triggered
The lease holder shall observe any instructions 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.	ML1389(10)(19); ML1302(27)	Noted	Not Triggered
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.	ML1389(13)(22); ML1302(33)	Noted	Not Triggered
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 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.	ML1389(14)(23); ML1302(34)	Noted	Not Triggered
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 and 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.	ML1389(15)(24); ML1302(36)	Noted	Not Triggered
The lease holder shall take all precautions against causing outbreak of fire on the subject area.	ML1389(16)(25); ML1302(38)	Firebreaks, fire fighting equipment and trained personnel along with procedures designed to remove the risk of fire	Compliant
(a) The registered 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 registered holder on the subject area.		Annual AEMRs have been prepared, 2012 is available on Baal Bone's website.	Compliant
(b) The date by which the Report must be submitted will be determined by the Minister after consulting with the , registered holder.			Noted

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
(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 State Pollution Control Commission 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 state Pollution Control Commission Act 1970 and the Water A.st 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.	CL391(11); ML1302(32)	Noted	Compliant
(d) The Minister may, by notice in writing, direct the registered holder to undertake any operations or remedial actions in such manner and within such 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.		Noted	Not Triggered
b)Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.	CCL749(20); MPL1607(20); MPL261(20)	Noted	
The registered holder shall conduct operations on the subject area in such manner as to interfere as little as possible with any access ratepayers' properties.	ML1302(28)	Noted	Not Triggered
The registered holder shall observe any instruction given or which may given by the responsible authority with the view to the eradication noxious weeds within the subject area.	ML1302(29)	See weed control - Land and Biodiversity Management Plan	Compliant
Subject to any specific conditions of this lease providing rehabilitation of any particular part of the subject area affected by mining or activities associated therewith, the registered holder shall;~		Noted	Not Triggered
(a) reinstate, level, regrass, reforest and contour 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	ML1302(30)	Noted	Not Triggered
(b) fill in, seal or fence, to the satisfaction of the Minister, any excavation within the subject area.		Noted	Not Triggered
If required so to do by the Minister and within such time as may be stipulated by the Minister the registered 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.	ML1302(31)	Noted	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
The registered 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 registered holder is of the opinion that the approved operations should be amended the registered holder shall submit an amendment for the Minister's approval.	ML1302(32)(e)	No opencutting in audit period, some to the stipulations will still apply but these are general mining conditions that all sites comply with.	Compliant
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.	ML1302(37)	Noted, observations in the site inspection support this	Compliant
Flora and Fauna			
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.	MPL261(23); CCL749(23); MPL1607(23)(a)	Noted	Not Triggered
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.	MPL261(23); CCL749(23); ML1302(48)	Noted	Not Triggered
c) The lease holder must obtain all necessary approvals or licences before using timber from any Crown land within the lease area.	MPL261(23); CCL749(23); MPL1607(23)(c)	Noted	Not Triggered
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.	ML1389(19)(28); ML1302(46)	Noted	Not Triggered
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.	ML1389(20)(29)	Noted	Not Triggered
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.	ML1389(21)(30); ML1302(50)	Noted	Not Triggered
The leaseholder must ensure that removal of vegetation is minimised and that hollow bearing trees are avoided. Any clearing must comply with the provisions of the Threatened Species Conservation Act 1995 No 101'	MPL1607(23)(b)	Noted	Compliant

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
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.	ML1302(44)	Noted	Compliant
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.	ML1302(45)	Noted	Compliant
If directed so to do by 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 concession or authorisation, as be case may be, or any renewal thereof, to the satisfaction of the Minister.	ML1302(47)	Noted - AEMR and Land and Biodiversity Mngt Plan	Compliant
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.	ML1302(51)	Noted - AEMR and Land and Biodiversity Mngt Plan	Compliant
Blasting			
(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 1.2 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment and Climate Change.	MPL261(15); CCL749(15); ML1389(17)(26); MPL1607(15)	No blasting in audit period	Not Triggered
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.		No blasting in audit period	Not Triggered
c) Blasting will not be carried out outside of the hours of 9am and 5pm except without prior notification and approval of the Inspector.	ML1389(17)(26)	No blasting in audit period	Not Triggered
Roads			
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.		Noted	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
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.	MPL261(21); CCL749(21); MPL1607(21)	Noted	Not Triggered
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 Environment and Climate Change.	MPL261(22); CCL749(22); MPL1607(22)	Noted	Not Triggered
The lease holder shall pay to the Council of the City of Greater Lithgow, Department of Land & 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.	ML1389(23)(32)	Noted	Not Triggered
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 be 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 condition satisfactory to the Minister.	ML1389(24)(33); ML1302(59)	Noted	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
<p>(a)The registered holder shall pay to The Council of the City of Greater Lithgow, Department of Lands 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 registered holder or any person claiming through or under the registered holder to any road:-</p> <p>i) shown on the said plan as;</p> <p>ii) adjoining the surface or the excepted surface as the case may be of the subject area; as the case may be of the subject area; ,</p> <p>iii) traversing the surface or the excepted surface as the case may be of the subject area;</p> <p>iv) comprising the surface or the excepted surface as the case may be of the subject</p> <p>v) in the vicinity of the surface or the excepted surface area.</p>		Noted	Not Triggered
<p>(b) Notwithstanding that the registered holder may have complied with the registered holder shall pay to Council, Department of Lands 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 registered holder er any person claiming through or under the registered holder to any road:-</p> <p>i) shown on the said plan as;</p> <p>ii) adjoining the surface or the excepted surface as the case may be of the subject area;</p> <p>iii) traversing the surface or the excepted surface as the case may be of the subject area;</p> <p>iv) comprising the surface or the excepted surface as the case may be of the subject area;</p> <p>v) in the vicinity of the surface or the excepted surface as the case may be of the subject area.</p>	CL391(3); ML1302(57)	Noted	Not Triggered
<p>(c) AND THE REGISTERED EOLDER HEREBY COVENANTS with the said Council that the registered holder will pay to the said Council the cost incurred by the said Council of making good any such damage caused as aforesaid and that the registered holder hereby covenants with the said Chief Executive that the registered holder will pay to the said Chief Executive the cost incurred by the said Chief Executive of making good any such damage caused as aforesaid.</p>		Noted	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
(d) AND IT IS HEREBY AGREED AND DECLARED that the amount to be paid by the registered holder under the provisions of this condition shall. include in addition to the cost of all necessary labour and materials all costs and expenses reasonably incurred in and about the making of surveys the preparation of plans and specifications and estimates the supervision and inspection of the works and all administrative and overhead costs and expenses of the Council or the Department of Lands or the Chief Executive, Roads and Traffic Authority as the case may be related or attributable to the works undertaken to make good any damage caused to any road. A certificate under the hand of the Town or Shire Clerk of the said Council or the Secretary for Lands or the Chief Executive, Roads and Traffic Authority or the person for the time being acting as such Clerk, Secretary or Chief Executive as to the amount of the cost of making good any damage to any road shall in all respects and for all purposes be conclusive evidence of the amount of such cost and of the due determination thereof PROVIDED HOWEVER that the amount to be paid by the registered, holder as' aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Lands' or the Chief Executive, Roads and Traffic Authority as the case may be fro:::n the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in settlement of a claim for compensation for the same damage.		Noted	Not Triggered
Subject to Condition No 59 and if directed so to do by the Minister the registered holder shall allow free and uninterrupted access along any road, track or firetrail traversing the subject area.	ML1302(58)	Noted	Compliant
Subsidence			
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.		Subsidence Management Plan was completed and approved prior to the extraction that took place in the early part of the audit period	Compliant
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)		Noted	

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
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 Mine Health & Safety Act 2004, or the document New Subsidence Management Plan Approval Process -Transitional Provisions (EDPO9).	CCL749(8)	Noted - see EOP Reports	Compliant
d)Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.		Subsidence Management Plan was completed and approved prior to the extraction that took place in the early part of the audit period	Compliant
e)Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 3 and will be subject to the Annual Environmental Management Report process as set out under Condition 4. 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.		Noted	
Labour/Expenditure			
The lease holder must: a) ensure that at least 148 competent people are efficiently employed on the lease area on each week day except Sunday or any week day that is a public holiday, OR	CCL749(9)	Exemption sought and received from DG DRE	Compliant
b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$2,590,000 per annum whilst the lease is in force. 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.		Exemption sought and received from DG DRE	Compliant
The lease holder shall during each year of the term of the authority:- a) ensure that at least 17 workers are efficiently employed on the subject area	ML1389(29)(45)	Exemption sought and received from DG DRE	Compliant
b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than \$297,600.00. The Minister may, at any time after a period of two (2) years from the date on which this authority has effect increase or decrease the amount of expenditure or labour required.		Exemption sought and received from DG DRE	Compliant

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
The registered holder shall:- (a) ensure that at least thirty six (36) competent workmen are efficiently employed on the subject area on each week day except Saturday or any week day that is a public holiday, or (b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than \$630,000.00 during each year of the term of the lease.	CL391(5); ML1302(78)	Exemption sought and received from DG DRE	Compliant
Costs or expenses incurred which are not, in the opinion of the Director-General, directly associated with the prospecting or mining operations, shall not be accounted expenditure for the purposes of this condition. The Minister may, at any time or times after a period of two (2) years from the date on which this lease has effect or from the date on which the renewal of this lease has effect, as the case may be, by instrument in writing served on the registered holder of the lease, increase or decrease the amount of expenditure required under this condition provided that not more than one variation in the amount of expenditure shall be made in any period of two years.		Noted	
The registered holder shall ensure that an amount of not less than \$..... is expended each year during the firstyears of the term of this lease on surface establishments, shaft sinking, driving inclined drift and on underground development of the mine located or to be located within the external boundaries of the subject area. Thereafter the registered holder shall:-	ML1302(79)	Exemption sought and received from DG DRE	Compliant
(a) ensure that at least..... competent workmen are efficiently employed on the subject area on each week day except Saturday or any week day that is a public holiday, or		Exemption sought and received from DG DRE	Compliant
(b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than \$..... during each year of the term of the lease.		Exemption sought and received from DG DRE	Compliant
Costs or expenses incurred which are not, in the opinion of the Director-General, directly associated with the prospecting or mining operations, shall not be accounted expenditure for the purposes of this condition. The Minister may, at any time or times after a period of two (2) years from the date on which this lease has effect or from the date on which the renewal of this lease has effect, as the case may be, by instrument in writing served on the registered holder of the lease, increase or decrease the amount of expenditure required under this condition provided that not more than one variation in the amount of expenditure shall be made in any period of two years.		Noted	

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
Prospecting and Exploration			
a) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Water and Energy Regional Hydrologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.	CCL749(17)	No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
b) If the lease holder drills exploratory drill holes he must satisfy the Director-General that:-		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
c) all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
ii) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
iii) all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters;		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
(iv) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
iv) if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers,		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
(vi) 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.		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
(vii) once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.		No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
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.	ML1389(35)(51); ML1302(86)	No exploration within the audit period, no exploration licenses held by BBC	Not Triggered
Water			
a) Operations shall be carried out in such a way as not to cause any pollution of the Burrendong or Macquarie River Catchment Areas.		EPL, Project Approval, Water Management Plan, water licences	Compliant

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
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 Areas the lease holder shall refrain from using or cease using as the case may require such process within twenty, four (24) hour 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.	ML1389(25)(34); ML1302(63)	Noted	Not Triggered
c) The lease holder shall comply with any regulations now in force or hereafter to be in force or the protection from pollution of the said Catchment Areas.		Noted, EPL, Project Approval, Water Management Plan, water licences	Compliant
Sydney Catchment Authority a) The lease holder shall carry out operations in such a way as to conform strictly to all provisions of the Sydney Water Catchment Management Act 1998 and the regulations thereunder applying to the prevention of pollution of the Warragamba Outer Catchment Area or the preservation of the purity of the water supply provided thereby or derived therefrom or for the protection of the property of Sydney Catchment Authority [hereinafter referred to as the _the Authority'] on the Warragamba Outer Catchment Area and also to all requirements of the Authority from time to time under the said Act or any of the regulations for the time being in force.	CCL749(32); MPL1607(30); ML1302(64)	Noted, EPL, Project Approval, Water Management Plan, water licences	Compliant
b) If the lease holder shall at any time be using or about to use any process which in the opinion of the Authority is likely to pollute the Warragamba Outer Catchment Area or the water supply or to endanger any property of the Authority on the Warragamba Outer Catchment Area the lease holder upon service of a notice in writing under the hand of the Minister to do so shall: i) discontinue the use of such process immediately, or (ii) thereafter refrain from adopting such process at any time, as the case may require.		Noted, EPL, Project Approval, Water Management Plan, water licences	Not Triggered
c) The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent the contamination, pollution, erosion or siltation of any stream or watercourse or Warragamba Outer Catchment Area and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution or siltation of any stream watercourse or Warragamba Outer Catchment Area.		Noted, EPL, Project Approval, Water Management Plan, water licences	Compliant

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
<p>d)The lease holder hereby covenants with Us Ours Heirs and Successors and as a separate covenant the lease holder hereby covenants with the Authority and its Successors that the lease holder shall at all times hereafter save harmless and keep Us and the said Authority and Our Heirs and Successors and the Successors of the said Authority indemnified from payment of compensation and from and against all actions proceedings claims and demands in respect of any injury loss of damage arising out of or in any way connected with any interference with or deprivation or loss of access to the land and premises of this authority which may occur by reason of any works or operations undertaken or carried out by the said Authority or arising out of or in any way connected with any discontinuance or alteration of any process consequent upon the service of a notice in pursuance of the provisions of Condition 31(b) or arising out of or in any way connected with the operation of any regulations relating to Warragamba Outer Catchment Area in force at the date hereof or made by the said Authority at any time hereafter and the lease holder hereby agrees that for the purpose of this condition the said Authority shall be deemed to be a party to this authority.</p>		Noted	
<p>e)The lease holder shall: i)Make such provisions for sanitation as may be directed by the Authority and shall at all times observe and perform any requirements of the said Authority respecting sanitation.</p>	CCL749(32); ML1302(64)	Noted	Not Triggered
<p>ii)not establish any camps or habitations within any area under the control of the Authority unless with the consent of the Authority.</p>		Noted	Not Triggered
<p>iii)Not sink any drillhole within the stored waters on the subject area nor within 40 metres of the top water level thereof unless with the consent of the Authority.</p>		Noted	Not Triggered
<p>(iv) Not sink any drillhole within any watercourse on the Warragamba Outer Catchment Area nor within 100 metros thereof unless with the consent of the Authority.</p>		Noted	Not Triggered
<p>iv)Not interfere with or impede the use of the Authority tracks of endanger their stability in any way by reason of the operations unless with the consent of the Authority.</p>		Noted	Not Triggered
<p>(vi) Not construct any road to the sites of any drillholes unless with the consent of the Authority to the proposed route and type of road construction.</p>		Noted	Not Triggered
<p>(vii) Not interfere in any way with any fences on or adjacent to the Warragamba Outer Catchment Area unless with the consent in writing of the owner thereof or the Authority.</p>		Noted	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
(viii) Give twenty eight days notice to the General Manager, Catchment Operations, Sydney Catchment Authority, Penrith, of its intention to commence drilling operations,		Noted	Not Triggered
(ix)Not cut or remove any timber except such as directly obstructs or prevents the carrying on of operations and the lease holder shall obtain the consent in writing of the Authority before making use of the timber so cut for other than in connection with operations,		Noted	Not Triggered
(x) Complete work in relation to rehabilitation within the Warragamba Outer Catchment Area before termination of the authority to the satisfaction of the Authority.		Noted	Not Triggered
The lease holder shall: a)Make such provisions for sanitation as may be directed by the Authority and shall at all times observe and perform any requirements of the said Authority respecting sanitation.		Noted	Not Triggered
b)not establish any camps or habitations within any area under the control of the Authority unless with the consent of the Authority.		Noted	Not Triggered
c)Not sink any drillhole within the stored waters on the subject area nor within 40 metres of the top water level thereof unless with the consent of the Authority.		Noted	Not Triggered
d)Not sink any drillhole within any watercourse on the Warragamba Outer Catchment Area nor within 100 metres thereof unless with the consent of the Authority.		Noted	Not Triggered
e)Not interfere with or impede the use of the Authority tracks of endanger their stability in any way by reason of the operations.		Noted	Not Triggered
f)Not construct any road to the sites of any drillholes unless with the consent of the Authority to the proposed route and type of road construction.	MPL1607(31)	Noted	Not Triggered
g)Not interfere in any way with any fences on or adjacent to the Warragamba Outer Catchment Area unless with the consent in writing of the owner thereof or the Authority.		Noted	Not Triggered
h)Give twenty eight days notice to the General Manager, Catchment Operations and Major Projects, Sydney Catchment Authority, Penrith, of its intention to commence drilling operations.		Noted	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
i) Not cut or remove any timber except such as directly obstructs or prevents the carrying on of operations and the lease holder shall obtain the consent in writing of the Authority before making use of the timber so cut for other than in connection with operations.		Noted	Not Triggered
j) Complete work in relation to rehabilitation within the Warragamba Outer Catchment Area before termination of the authority to the satisfaction of the Authority.		Noted	Not Triggered
Public Infrastructure and Utilities			
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.	ML1389(26)(42)	Noted	Not Triggered
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.	MPL1607(19); CCL749(19); MPL261(19)	Noted	Not Triggered
Unless with the consent of the Department of Land & Water Conservation, the lease holder shall not carry out any operations in the vicinity of, or which are likely to affect, the Fish River Water Supply pipeline.	ML1389(27)	Noted	Not Triggered
a) The registered holder shall as far as is practicable so conduct operations as not to interfere with or impair the stability efficiency of any:- i) telephone line; ii) power transmission line; iii) pipeline traversing the subject area.	CL391(4); ML1302(73)	Noted	Not Triggered
(b) The registered holder shall comply with any direction given or which may be given by the Minister regarding any:- i) telephone line; ii) transmission line; iii) pipeline traversing the surface or excepted surface, as the case may be, of the subject area.		Noted	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
The registered holder shall observe and comply with Specification for Overhead Line Construction No C(b) 1-1962 issued by the Electricity Supply Association of Australia with such additions and amendments as may subsequently be made.	ML1302(74)	Noted	Not Triggered
Unless with the consent in writing of first had and obtained and subject to such conditions as may be imposed the registered holder shall not carry out any operations within any easement for any power transmission line traversing the subject area.	ML1302(75)	Noted	Not Triggered
(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 power transmission line traversing the subject area.	ML1302(76)	Noted	Not Triggered
(b) In the event of operations interfering with or interfering the stability of any transmission line traversing the subject area or if required so to do by the Minister the registered holder shall, at his own expense, relocate any such transmission line to the satisfaction of, and in a position required by, 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 transmission line to its original position.		Noted	Not Triggered
The registered holder shall ensure that access to any power transmission line structures is available at all times to employees of in the performance of their duties.	ML1302(77)	Noted	Not Triggered
Heritage			
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.	ML1389(28)(44)	See ACHMP and EOP reports for verification	Compliant
a)The lease holder shall not knowingly destroy, deface or damage any aboriginal or paleontological relic or other item of archaeological interest within the subject area and shall take every precaution in excavating or disturbing the land against any such destruction, defacement or damage.	CCL749(35)	See ACHMP and EOP reports for verification	Compliant
b)The lease holder shall within twenty-four (24) hours notify the Director of NSW National Parks and Wildlife Service of the discovery of any such relic or other item.		See ACHMP and EOP reports for verification	Compliant

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
c)The lease holder shall not continue any operations likely to interfere with or disturb any such relic or other item without the concurrence of the Director of NSW National Parks and Wildlife Service provided that such concurrence must be given or refused within twenty eight (28) days of the notification referred to above.		See ACHMP and EOP reports for verification	Compliant
The registered holder shall, as far as may be practicable, so conduct operations in such a manner as not to damage or interfere in any way with which is been identified as a geological heritage site, and which is indicated on the said plan.	ML1302(24)	See ACHMP and EOP reports for verification	Compliant
Administration			
The lease holder shall if directed by the Minister and within such time as the Minister may stipulate furnish to the Minister:-	ML1389(30)(46); CL391(6); ML1302(80)	Noted	Not Triggered
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;		Prior to audit period	
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;		Noted	
d)information regarding the financial viability of the lease holder and operations within and associated with the subject area; and		Noted	
e)information regarding shareholdings in the lease holder.		Noted	
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.	ML1389(37)(55)	Noted	
(a) The registered holder shall not commence any activities within any "exempted area" as defined by Section 6 of the Coal Mining Act, 1973, except with the written consent of the Minister and subject to such conditions, provisions and stipulations as he may impose.	ML1302(23)	Noted	Not Triggered
(b) Where the registered holder desires to commence any activities within any "exempted area" the registered holder shall furnish to the Director-General, three copies of a topographic map, scale 1:25,000 showing the location of any proposed drill holes together with details of proposed drilling, geological and geophysical activities,		Noted	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
The registered holder shall not enter into any agreement to transfer, sell or otherwise dispose of its interest in this concession or authorisation as the case may be for a period of years from the de of this concession or authorisation as the case may be without first notifying the Minister, in writing, and obtaining the Minister's consent to such action,	ML1302(25)	Noted	Not Triggered
Inspectors			
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,	ML1389(32)(48); CL391(8); ML1302(82)	Noted	
i) to cease operations within the subject area in contravention of that condition or Act; and		Noted - not in the audit period	Not Triggered
ii) to carry out within the specified time works necessary to rectify or remedy the situation.		Noted - not in the audit period	Not Triggered
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.		Noted - not in the audit period	Not Triggered
c) A notice referred to in this condition may be served on the Colliery Manager.		Noted - not in the audit period	Not Triggered
Indemnities			
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 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 working now existing or to be made by the lease holder within the boundaries of the subject area or in connecting 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.	ML1389(33)(49); CCL749(26); MPL261(26); MPL1607(26); CL391(9); ML1302(84)	Noted	
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 even of any damage resulting from mining operations under or near the subject area.	ML1389(34)(50)	Noted	
Royalties, fees and deposits			

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
a) The lease holder shall, within two (2) months of being requested by the Director-General, lodge with the Minister the sum of \$150,000.00 in accordance with Instructions for Manner of Lodgement of Security Deposits as security for the fulfilment 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 imposed or given pursuant to a condition or provision of this authority or of any provision of the Act or regulations made thereunder.	ML1389(36)(52); ML1302(116)	No longer current	
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.		Noted	
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.		Noted	
a)The single security in the sum of \$5,432,800 must be 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 749 (Act 1973), Coal Lease 391 (Act 1973), Mining Purposes Lease 261 (Act 1973), Mining Lease 1302 (Act 1992), Mining Lease1389 (Act 1992) and Mining Lease 1607 (Act 1992). 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.	CCL749(28)	Bank guarantee reviewed and adequate	Compliant
b) The lease holder must provide the security required by sub--clause (a) in one of the following forms: (i) cash, (ii) a security certificate in a form approved by the Minister and issued by an authorised deposit-taking institution		Bank guarantee reviewed and adequate	Compliant

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
a)The single security in the sum of \$9,723,000 must be 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 749 (Act 1973), Coal Lease 391 (Act 1973), Mining Purposes Lease 261 (Act 1973), Mining Lease 1302 (Act 1992), Mining Lease 1389 (Act 1992) and Mining Lease 1607 (Act 1992). 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.	MPL261(28)	Bank guarantee reviewed and adequate	Compliant
b) The lease holder must provide the security required by sub-clause (a) in one of the following forms: (i) cash, (ii) a security certificate in a form approved by the Minister and issued by an authorised deposit-taking institution		Noted	Compliant
a)The single security given and maintained with the Minister by the leaseholder for the purpose of ensuring the fulfilment by the lease holder of obligations under Coal Lease No. 391, Consolidated Coal Lease No. 749 and Mining Purposes Lease No. 261 (Act 1973) and Mining Leases No's. 1302 and 1389 (Act 1992) is extended to apply to this lease.		Noted	
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.	MPL1607(28)	Noted	
Resource Recovery and Disposal			

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
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.	CCL749(25)	This has not occurred in the audit period	Not Triggered
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.		This has not occurred in the audit period	Not Triggered
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.		This has not occurred in the audit period	Not Triggered
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.		This has not occurred in the audit period	Not Triggered
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.		This has not occurred in the audit period	Not Triggered
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.		This has not occurred in the audit period	Not Triggered
Where any coal mined from within the subject area, whether by open cut, surface mining or underground methods. is not immediately saleable. The registered holder shall, unless otherwise approved by the Minister, store, for future disposal by the registered holder, any such coal in such a manner and location as the Minister may approve and subject to such conditions, provisions and stipulations as the Minister may impose.	ML1302(4)	Noted, This has not occurred in the audit period	Not Triggered
Special			
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:		Noted	

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
(i) the lease holder has agreed that specified reports may be made non-confidential.	CCL749(13)	Noted	Not Triggered
(ii) reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.		Noted	Not Triggered
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.		Noted	Not Triggered
c)The Director-General may extend the period of confidentiality.		Noted	Not Triggered
The terms of the non-exclusive copyright licence granted under condition 12 are:	CCL749(14)	Noted	Not Triggered
a)the Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.		Noted	Not Triggered
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	Not Triggered
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	Not Triggered
d) there is no royalty payable by the Minister for the licence.		Noted	Not Triggered
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.		Noted	Not Triggered

Requirement	Condition	Evidence	Audit Finding						
MINING TENEMENTS									
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302									
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 petroleum 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. 	CCL749(31); MPL261(31)	Noted	Not Triggered						
The lease holder shall be limited to the following operations and conditions within the specified areas described on the plan annexed hereto and marked "B".		Noted	Not Triggered						
<table border="0"> <tr> <td style="width: 30%;">Column 1</td> <td style="width: 40%;">Column 2</td> <td style="width: 30%;">Column 3</td> </tr> <tr> <td>lands shown by green colour on the plan annexed hereto and marked 'B'</td> <td>a. Constructing maintaining or using in connection with mining any of the following, namely, adits, bn, bridge, building, coal preparation plant, Conveyor systems, dam, drain, drift, jetty, machinery, magazine, railway, reservoir, road, telephone line, tramway, tunnel. b. the erection, maintenance and use of standars, posts, wires and appliances for the transmission of electricity. c. The dumping or depositing of coal, minerals, mine residues or tailings. d. the storing of fuel, machonery, tools timber or equipment in connection with mining. e. Laying, maintaining and using a pipeline or cable in connection with mining. f. The Generation of electricity g. Establishing, maintaining and using a nursery and associated facilities for the propagation of plants, shrubs and trees required for the rehabilitation of lands used in connection with mining or mining purposes.</td> <td>Condition No 34</td> </tr> </table>	Column 1	Column 2	Column 3	lands shown by green colour on the plan annexed hereto and marked 'B'	a. Constructing maintaining or using in connection with mining any of the following, namely, adits, bn, bridge, building, coal preparation plant, Conveyor systems, dam, drain, drift, jetty, machinery, magazine, railway, reservoir, road, telephone line, tramway, tunnel. b. the erection, maintenance and use of standars, posts, wires and appliances for the transmission of electricity. c. The dumping or depositing of coal, minerals, mine residues or tailings. d. the storing of fuel, machonery, tools timber or equipment in connection with mining. e. Laying, maintaining and using a pipeline or cable in connection with mining. f. The Generation of electricity g. Establishing, maintaining and using a nursery and associated facilities for the propagation of plants, shrubs and trees required for the rehabilitation of lands used in connection with mining or mining purposes.	Condition No 34	CCL749(33)	Noted	Not Triggered
Column 1	Column 2	Column 3							
lands shown by green colour on the plan annexed hereto and marked 'B'	a. Constructing maintaining or using in connection with mining any of the following, namely, adits, bn, bridge, building, coal preparation plant, Conveyor systems, dam, drain, drift, jetty, machinery, magazine, railway, reservoir, road, telephone line, tramway, tunnel. b. the erection, maintenance and use of standars, posts, wires and appliances for the transmission of electricity. c. The dumping or depositing of coal, minerals, mine residues or tailings. d. the storing of fuel, machonery, tools timber or equipment in connection with mining. e. Laying, maintaining and using a pipeline or cable in connection with mining. f. The Generation of electricity g. Establishing, maintaining and using a nursery and associated facilities for the propagation of plants, shrubs and trees required for the rehabilitation of lands used in connection with mining or mining purposes.	Condition No 34							
The lease holder shall consult with the District Soil Conservationist Lithgow regarding erosion control and rehabilitation work prior to the commencement of the operations hereby authorised and at a minimum of six monthly intervals.	CCL749(34)	Prior to the audit period							
(a) The registered holder shall not commence any activities within any "exempted area" as defined by Section 6 of the Coal Mining Act, 1973, except with the written consent of the Minister and subject to such conditions, provisions and stipulations as he may impose.		Prior to the audit period							

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
(b) Where the registered holder desires to commence any activities within any "exempted area" the registered holder shall furnish to the Director-General, three copies of a topographic map, scale 1:25,000 showing the location of any proposed drill holes together with details of proposed drilling, geological and geophysical activities,	ML1302(23)	Prior to the audit period	
(i) This concession or authorisation as the case may be does not confer the power to cut or remove any timber within , except such as directly obstructs or prevents the carrying on of operations and the registered holder shall obtain authority under the provisions of the Forestry Act, 1916, as amended, or any Act amending the same and the Regulations thereunder before making use of the timber so cut for other than in connection with operations. The sanction of the District Forester or his deputy shall be obtained before proceeding to cut any other timber within the said	ML1302(65)	Noted	Not Triggered
(ii) The registered holder shall take all precautions against causing outbreak of fire on the said and shall not burn off any grass dry herbage or surface litter except with the consent of the District Forester first had and obtained and shall under the direction and control of the local Forest Officer stack and burn the heads of any trees destroyed during the course of operations and the registered holder shall not permit any fireplace to be constructed unless protected by stone wallings and fires lit therein shall not be left unattended.		Noted	Not Triggered
(iii) This concession or authorisation as the case may be is issued subject to any condition and/or restrictions, which may be prescribed in accordance with the provisions of the Forestry Act, 1916, as amended, or any Act amending the same and the Regulations thereunder and the Regulations under the Bush Fires Act, 1949.		Noted	Not Triggered
(iv) In the event of operations encroaching on or within ten (10) metres of any constructed road or firebreak the registered holder shall provide a suitable deviation to the same standard as the previous road or firebreak and upon the completion of operations or the sooner determination of this concession or authorisation as the case may be the registered holder shall restore the road or firebreak to its original position and condition to the satisfaction of the Minister.		Noted	Not Triggered
(v) The registered holder shall not interfere with any Crown improvements unless with the consent in writing of the Minister first had and obtained and subject to such conditions as he may impose.		Noted	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
(vi) The registered holder shall not cut destroy ringbark or remove any timber or other vegetative cover except such as directly obstructs or prevents the carrying on of operations.	ML1302(65)	Noted	Not Triggered
(vii) 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 Director-General with a view to minimising or preventing soil erosion.		Noted	Not Triggered
(viii) (a) The registered holder shall not cut damage or interfere with any trees or shrubs except such as may directly obstruct or prevent the carrying out of operations.		Noted	Not Triggered
(b) The operations shall be carried out in such a manner as to interfere as little as possible with natural flora or fauna.		Noted	Not Triggered
(ix) (a) Any necessary clearing shall be done only with the prior permission of the District Forester or his deputy and compensation shall be paid for any mature trees or any mature trees damaged or destroyed at the rate fixed by the Forestry Commission of New South Wales and such compensation shall be payable on demand at the end of each calendar month.		SE Vent Fan agreement, though arrangement was made outside the audit period	Compliant
(b) In the event of any nee-merchantable trees being destroyed by the operations hereby authorised compensation payable to the Forestry Commission of New South Wales shall relate to the cost of establishment and tending of the part of the forest affected by the operations.		Noted	Not Triggered
(c) For the purpose of allowing inspection of the site and assessment of compensation payable for the tim.be= to be destroyed, the registered holder shall provide two weeks' notice to the District Forester or his deputy prior to the commencement of any clearing operations.		Noted	Not Triggered
(x) The registered holder shall not cause damage to forest roads or tracks by operating vehicles on the subject area during wet weather.		Noted - site inspection did not identify any damaged Forest roads	Compliant
(xi) The Minister reserves the right to suspend operations immediately if weather conditions and/or the operations are causing damage to any assets of the Forestry Commission of New South wales.		Noted	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
(xii) During operations and progressively, the registered holder shall rehabilitate, consolidate and make trafficable all roads and firebreaks at present existing and which may be affected by the operations to the satisfaction of the District Forester or his deputy.		Noted	Not Triggered
(xiii) The registered holder shall not cut destroy ringbark or remove any timber or vegetative cover except such as directly obstructs or prevents the carrying on of operations and subject to payment to the owner of compensation assessed as prescribed by the Coal Mining Act.		Noted	Not Triggered
(xiv) The registered holder shall not deposit on the subject area any refuse except in properly constructed containers which shall be regularly removed by the registered holder from the subject area.		No evidence of this n the site inspection	Compliant
(xv) The registered holder shall maintain the subject area in a clean and tidy condition at all times and to the satisfaction of the Minister.		No evidence of this n the site inspection	Compliant
a) The registered holder shall vacate any part of the subject area which is within the danger areas of the Air force live bombing range and/or air to ground gunnery and rocket firing range upon notification by the Air Force authorities of any exercises affecting such area and the registered holder shall not return until the conclusion of any such exercises..	ML1302(66)	Not Applicable	
b) The registered holder shall not interfere in any way with entry upon the surface of the subject area by any persons duly authorised by the Air Force authorities for any purpose whatsoever in connection with the live bombing range and/or air to ground gunnery and rocket firing range.		Not Applicable	
c) The registered holder shall accept all and any risks to which the registered holder or the registered holder's property may be exposed by reason of the existence of the live bombing range and/or air to ground gunnery- and rocket firing range on the subject area and the registered holder shall save harmless the Commonwealth Government 6r persons lawfully using the said ranges from any claims or injuries to the registered holder or the registered holder's servants or workmen which may arise by reason of the use of the said ranges by the Air Force		Not Applicable	
a) The registered holder shall not interfere in any way with rifle practice by members of duly constituted rifle clubs or the Australian Military Forces.		Not Applicable	
b) The registered holder shall not be entitled to charge rent for the use of the rifle range on the subject area or any part thereof.		Not Applicable	

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
c) The registered holder shall save harmless and indemnify the Crown, the Minister and the Commonwealth Government from and against any and all loss, damage and injury whatsoever whether negligently or otherwise occasioned to the registered holder, or to his agents or employees by reason of the discharge of fire-arms on the rifle range and shall save harmless and indemnify persons lawfully using the said range from and against any and all loss, damage and injury whatsoever occasioned to the registered holder: or to his agents or employees by the discharge of fire-arms on the said range except such loss, damage or injury as is occasioned by wilful recklessness or negligence in the discharge of such fire-arms.	ML1302(67)	Not Applicable	
(d) Members of rifle clubs or the Australian Military Forces shall retain the privileges of taking riding horses and vehicles on to the rifle ranges		Not Applicable	
a) The marks in connection with any trigonometrical station 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.	ML1302(68)	Trig survey report reviewed, auditors satisfied that damage was not beyond approval limits	Compliant
b) The registered holder shall take all necessary precautions to preserve the trigonometrical station and the cairn mast and vanes which might be erected upon the subject area.		Trig survey report reviewed, auditors satisfied that damage was not beyond approval limits	Compliant
a) No buildings' or other observations to and difficult to effect. structures shall be erected which would make from surrounding trigonometrical stations		Trig survey report reviewed, auditors satisfied that damage was not beyond approval limits	Compliant
b) In the event of operations interfering with or damaging any trigonometrical station erected on or near the subject area, or if required so to do by the Minister, the registered holder shall, at his own expense, relocate any such trigonometrical station to the satisfaction of, and in a position required by, the Department of Lands, the Central Mapping Authority 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 trigonometrical station to its original position.	ML1302(69)	Trig survey report reviewed, auditors satisfied that damage was not beyond approval limits	Compliant
The registered holder shall permit the free and uninterrupted passage of stock through the subject area and shall conduct operations in such a manner as not to cause any danger to travelling stock.	ML1302(70)	Noted	Not Triggered

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
The registered 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 Reserve No and shall conduct operations as not to cause any danger to persons and travelling stock.	ML1302(71)	Noted	Not Triggered
The registered 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	ML1302(72)	Noted	Not Triggered
Barriers			
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.	CL391(2); ML1302(8)	Noted see SMP	Compliant
Unless with the consent of the Minister first had and obtained and subject to such conditions as ~ may impose, the registered holder shall not mine for, work, win or remove any coal from those parts of the subject area within the highwater level subsidence control zone defined:-	ML1302(5)	Noted	Not Triggered
(a) on the surface by the highwater level of ; ... and a point 2.44 metres in elevation above that high water level;		Noted	Not Triggered
(b) in the Seam by a line defined by an angle of draw of 35° drawn landwards from the line drawn vertically beneath a point 2.44 metres in elevation above the highwater level of		Noted	Not Triggered
(c) in the seam by a line defined by an angle of draw of 35° drawn lakewards from the line drawn vertically beneath the highwater level of		Noted	Not Triggered
Unless with the consent of the Minister first had and obtained and subject to such conditions as the may impose the registered holder shall not mine for work win or remove any coal from that part of the subject area shown as a barrier..... metres wide on the said plan.	ML1302(6)	Not Assessed in this audit	
Unless with the consent of the Minister first had and obtained and subject to such conditions as the may impose the registered holder shall not mine for work win or remove any coal from that part of the subject area shown as barriers metres wide on the said plan.	ML1302(7)	Not Assessed in this audit	

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
(a) Before commencing to win or work any coal within the marginal zone/s defined in paragraph (b) of this condition or under the registered holder shall notify the Chief Inspector of Coal Mines of his intention so to do and shall submit a plan of the system whereby such coal is proposed to be won or worked and shall obtain the written approval of the Chief Inspector of Coal Mines to such system. No such coal shall be won or worked except in accordance with the system approved in writing by the Chief Inspector of Coal Mines as altered added to or omitted from as hereinafter provided. In connection with every such submission the registered holder shall do such acts and furnish such information as the Chief Inspector of Coal Mines may require. The Chief Inspector of Coal Mines may at any time cancel any approval to a system and may from time to time alter omit from or add to any system approved by him.	ML1302(9)	Not Assessed in this audit	
(b) For the purposes of paragraph (a) of this condition the marginal zone is the area contained by an angle of draw of 35° measured outwards from..... to the floor of the coal seam in which mining operations are being carried out.		Not Assessed in this audit	
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 work or cause to be worked any seam of coal by underground methods within the subject area within the barrier defined as follows:- The land within the zone beneath and adjacent to*..... , , * Railway enclosed by an angle of draw of 35° from the vertical plane of the boundary parallel to and thirty (30) metres horizontally distant from either side of the railway lands, such angle of draw being measured outwards from the point on the vertical plane of the said boundary at the surface or at the level of the horizontal plane of the railway track, whichever may be the higher, to the floor of the coal seam in which mining operations are being carried out.	ML1302(10)	No railways within subsidence zone, no mining in the audit period	Compliant
Miscellaneous			
The registered holder shall adopt such practices and techniques to the satisfaction of the Minister to prevent disturbance to the escarpments of the Wolgan and Capertee Valleys and any other escarpments or surface features as required by the Minister and the registered holder shall comply with any further direction given or which may be given by the Minister in this regard.	CL391(10)	Wolgan Escarpment Management Plan, no potential impacts to the Capertee Valley	Compliant
The registered holder shall construct and maintain the railway within the subject area in accordance with the specifications and requirements of the State Rail Authority of New South Wales.	ML1302(117)	Not Assessed in this audit	

Requirement	Condition	Evidence	Audit Finding
MINING TENEMENTS			
ML 1389, MPL 261, CCL 749, CL 391, MPL 1607, ML 1302			
The Minister reserves the right to vary or revoke this authorisation or renewal of authorisation, as the case may be, at any time for any reason deemed good and sufficient.	ML1301(118)	Noted	
Notwithstanding the provisions of Condition 44, the registered 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 Commissioner of the Soil Conservation Service under Section 210 of that Act.	ML1302(119)	Noted	
Within 6 months of the completion of any airborne geophysical survey within the subject area the registered holder shall forward to the Director-General copies of levelled located computer tapes each of which shall, unless otherwise directed by the Director-General, be recorded at a density of 1600 bits per inch, with 9 track standard GDF ASC11 code and with the GDF data format being specified in the header file on each tape.	ML1302(120)	Noted - no exploration in the audit period	
The registered holder shall adopt such practices and techniques to the satisfaction of the Minister to prevent disturbance to the escarpments of the Wolgan and Capertee Valleys and any other escarpments or surface features as required by the Minister and the registered holder shall comply with any further direction given or which may be given by the Minister in this regard.	ML1302(121)	See SMP, Wolgan Escarpment Management Plan and associated management documentation	Compliant
The Minister shall not approve second workings in the subject area unless: -	ML1302(122)	Noted	Not Triggered
(a) the registered holder demonstrates to the Chief Inspector of Coal Mines, Department of Mineral Resources, that there is no potential adverse impact on lands above the subject area, and		Noted	Not Triggered
(b) the Minister responsible for Planning consents to any such proposed second workings approval.		Noted	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
1. GENERAL			
1.1 Introduction			
1.1	<p>This Environmental Management Strategy (EMS) outlines the system for environmental management at Baal Bone Colliery. Baal Bone uses the EMS to work towards the attainment of its Environmental and Community Policy and Vision, within the confines of what is reasonably practicable, and at a high standard of environmental management.</p> <p>This EMS provides the overarching framework for the management of environmental impacts identified in the environmental assessments and subsequent environmental approvals.</p>	Noted by the auditors	
2. PURPOSE AND OBJECTIVES			
2.2 Objectives			
2.2	<p>Through implementation, the Baal Bone Environmental Management Strategy aims to achieve the following:</p> <ul style="list-style-type: none"> • Reduced environmental impact; • Pro-active rather than reactive environmental and community management planning and control; • Continual improvement; • Strong understanding of responsibilities and accountabilities in relation to environmental management; • Assisting to foster good relations with the community and stakeholders; • Improved environmental performance that aims to go beyond compliance with applicable laws and company policies and standards; • Effective management of environmental risks; • Efficient use of resources; and • Implement and maintain industry best practice environmental management systems. 	Noted by the auditors	
3. EMS POLICIES, PRINCIPLES AND STRUCTURE			
3.1 Xstrata Coal Sustainable Development Policy			
3.1	<p>As Baal Bone Colliery is a wholly managed subsidiary of the Xstrata Group, Baal Bone has adopted the Xstrata Coal NSW Sustainable Development (SD) Policy. The policy stipulates Xstrata's intentions and principles in relations to its overall environmental performance. The SD Policy provides:</p> <ul style="list-style-type: none"> • A framework for environmental management; • A framework for setting and reviewing environmental objectives and targets; • Continual improvement in environmental performance and pollution prevention; and • A foundation for this Environmental Management Strategy. 	Noted by the auditors	

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
3.2 Baal Bone Colliery Environment and Community Values, Visions and Policies			
3.2	Both the Environment Vision and the Community Vision are displayed on the intranet (which is available to all staff) and in the foyer of the Baal Bone administration building. The policies have the commitment and support of executive XC, XCN and Site Management and are reviewed each three years.	Due to company name change it has been removed from the foyer and are awaiting the release of the Glencore policies	Not applicable
3.3 XCN Sustainable Development Management System			
3.3	The Baal Bone Colliery Environmental Management System has been developed generally in accordance with the XCN Sustainable Development (SD) Management System. There are seventeen guidelines with the XCN SD Management System that have been used as a basis for developing plans, procedures and standards implemented as part of this Strategy. Where appropriate, these guidelines have been adopted by Baal Bone and incorporated into environmental management practices at an operational level. The seventeen XCN SD guidelines are listed in Section 10.4.	Noted by the auditors	
3.4 ISO 14001 Environmental Management Framework			
3.4	In developing and implementing the Baal Bone EMS, the principles of ISO14001:2004 Environmental Management System have been applied.	Noted by the auditors	Compliant
4. PLANNING AND RESOURCES			
4.2 Environmental Aspect and Impacts			
4.2	Baal Bone Colliery has developed a site specific risk management plan (BBN SD GDL 0041 Risk and Change Management) to comply with XCN SD GDL 0005 5.0 Risk and Change Management and XC RI STD 0001 Risk and Change Management.	Noted by the auditors	Compliant
4.2.1	High level health, safety, environment and community issues are reviewed during Broad Brush Risk Assessments (BBRA). The BBRA was reviewed and updated in July 2012 to reflect the Care and Maintenance status of Baal Bone Colliery, and the operation of the mine as a training facility. Given the current status of Baal Bone and the limited surface activities there were no high risk environment or community issues (score of 17 or higher) identified during the 2012 BBRA.	Noted by the auditors	Compliant
4.2.2	The purpose of the Environment and Community Risk Assessment (ECRA) is to identify significant environment and community aspects, the risk they pose and the controls necessary to effectively manage them. Management of impacts is prioritised according to the level of risk each aspect is assigned. Once all aspects, impacts, risks and management controls have been identified, the BBN SD REG 0007 Aspects and Impacts Register is updated with any high risk issues (score of 17 or higher).	Noted by the auditors	Compliant
	In late September 2011 an updated ECRA was completed. The ECRA followed the completion of longwall mining in early September 2011 enabling a more comprehensive range of risks to be assessed and including the risks associated with: suspended operations, rehabilitation and mine closure. Only one high risk issue was identified during the 2011 ECRA, relating to site security and the potential for unlawful public access to the site. The ECRA and environmental aspects and impacts register are reviewed on an annual basis.	Noted by the auditors	Compliant
		No review of the ECRA since July 2012	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
4.3 Objectives and Targets			
4.3	<p>Objectives and targets are set annually as part of the annual planning process. The objectives and targets are developed to consider:</p> <ul style="list-style-type: none"> • Xstrata plc business Principles and SD Management Framework • The XCN SD Management System • Legal and other requirements • Aspects and impacts identified in the Environment and Community Risk Assessment • Individual roles and responsibilities for environment and community • Successful implementation of this EMS 	Noted by the auditors	
4.4 Annual Management Review			
4.4	<p>Baal Bone undertakes an annual management review of environment and community issues and performance (in line with PA 09_0178, Schedule 5, Conditions 3 and 4). The review provides a detailed understanding of key environmental aspects and impacts prior to participating in the Baal Bone Environment and Community Risk Assessment.</p>	Noted by the auditors	Compliant
	<p>The annual management review considers the following factors:</p> <ul style="list-style-type: none"> • Outcomes from monitoring and review activities; • Internal and external SD inspections, assessments and audit reports addressing: operational, specialist, functional, management system, legal compliance and stakeholder requirements; or other external commitments; • Health, safety, environment and community incident reports and investigation findings; • Performance data, trends and reports including the extent to which targets and objectives have been met; • Inputs and views of external stakeholders, including complaints; • Status of corrective and preventative actions; • Outcomes from previous management reviews; and • Government policies and regulation, socio-economic or political developments and new scientific findings and technological developments. 	Noted by the auditors	
	<p>Following the annual management review SD strategies, plans, process, objectives and targets are to be updated as part of the annual planning process.</p>	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
4.5 Exploration and Drilling			
4.5	Exploration and drilling activities at Baal Bone are undertaken in accordance with XCN SD ANN 0045 10.8 Exploration and Drilling. As specified by this annexure, Baal Bone develops procedures specific to individual drilling programs to manage health, safety, environment and community issues.	No exploration or drilling has occurred on site during the audit period.	Not triggered
	Baal Bone currently has no plans for further exploration or drilling, however if exploration or drilling is undertaken Environment and Community personnel would undertake inspections prior to, during and post drilling, to ensure works are undertaken in a safe manner and adequate controls are in place to minimise impacts on the environment and the community.	No exploration or drilling has occurred on site during the audit period.	Not triggered
	The following Baal Bone drilling standards and inspection templates would apply: <ul style="list-style-type: none"> • BBN TS STD 0001 Exploration and Drilling • BBN TS FRM 0001 Planning for Drilling • BBN TS FRM 0002 During Drilling Inspection • BBN TS FRM 0003 Post Drilling Inspection 	No exploration or drilling has occurred on site during the audit period.	Not triggered
	Drilling inspections are to be held by the person responsible for undertaking the drilling program and returned to the Environment and Community Department upon completion of the program (including rehabilitation of drill sites).	No exploration or drilling has occurred on site during the audit period.	Not triggered
4.6 Mine Closure			
4.6	Baal Bone Colliery has developed a Mine Closure Plan and a Detailed Mine Closure Plan is currently being finalised. The plan has been developed in accordance with XCN SD GDL 10.0 Environment, Biodiversity and Landscape Functions and XCN SD ANN 0038 10.1 Mine Closure. The objectives of the Plan are to align with Xstrata's SD objectives, meet statutory requirements, provide a sustainable post-mining land use and achieve successful relinquishment of security bonds.	Noted by the auditors	
4.7 Legal and Other Requirements			
4.7	Compliance management at Baal Bone is undertaken in accordance with XCN SD GDL 0007 7.0 Legal Compliance and Document Control.	Noted by the auditors	Compliant
4.7	Baal Bone maintains awareness of changes to standards, codes or legislation in the following ways: <ul style="list-style-type: none"> • Receipt of regular updates from legal advisers; • Participation in industry groups, such as the NSW Minerals Council; • Notification from the XCN Group Environment and Community Manager; • Access to legislation via the internet; • Access to the adopted XCN Legislation Schedule 	Noted by the auditors	Compliant
4.7	The requirement to provide training to personnel and contractors is assessed on an as required basis, following the Environment and Community Department becoming aware of a change.	Training Needs Analysis reviewed by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
4.7	Baal Bone follows a specific approvals and compliance process to ensure that all approvals required for the continuity of the operations are obtained within the required time frame and the compliance with these approvals is maintained. The approvals process at Baal Bone is in accordance with XCN APP PRO 0001 Approvals Storage and Monitoring. In following with this procedure Baal Bone maintains its component (BBN SD REG 0018) of the XCN register of leases, licences, consents and other approvals – XCN APP OA 1088 XCN Leases, Licences, Consents and Other Approvals. This register is updated annually or when a new approval is obtained.	Noted by the auditors	Compliant
4.7	In the event that Baal Bone required a new major project approval, the approval will be obtained in accordance with XCN SD ANN 0013 7.2 Major Projects Environmental Approvals. For new projects, baseline studies will be undertaken in accordance with section 3.5 of XCN SD GDL 0010 Environment, Biodiversity and Landscape Functions.	Not in the audit period	Not triggered
4.7	Baal Bone also maintains a Compliance Register (CMO). The register contains a detailed account of all environmental approvals associated with the operation. Every condition of an approval is listed within the register. Key approval conditions are linked to management requirements and added to XCN's compliance management system 'CMO'. Compliance is reviewed on a monthly basis.	Noted by the auditors	Compliant
4.7	The requirement to modify or obtain additional government approvals is identified during the annual planning process.	Noted by the auditors	Compliant
4.7	A register of legislation relevant to Baal Bone Colliery is maintained in BBN SD REG 0008 Relevant Legislation. A list of relevant regulatory and government authorities is included in BBN SD REG 0013 Stakeholder and Community Contact Details	Noted by the auditors	Compliant
4.8 Resources			
4.8.1	Where practicable when purchasing products or selecting a supplier (see XCN SD GDL 0014 Product Stewardship Management Plan), the following environmental aspects are considered: <ul style="list-style-type: none"> • Purchases of equipment, plant or materials should be evaluated on the basis of the potential HSEC hazards in addition to other selection criteria (e.g. cost and effectiveness); • Items chosen should consider the ability of the product, or it's parts, to be re-used or recycled; • Consideration should be given to energy and water conservation and waste minimisation when selecting and purchasing new equipment and consumables; • Adverse environment effects or community disturbance (such as excessive noise) must be considered within any risk assessment conducted; and • Where all factors are equal, preference will be given to sourcing materials and services from local companies. 	Noted by the auditors	Compliant
4.8.1	To foster continual improvement in the way Baal Bone acquires, manages and disposes of materials, a site specific product stewardship management plan (BBN SD PLN 0047 Product Stewardship) has been developed.	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
4.9 Baseline Studies			
4.9.1	Baseline studies of Archaeology and Heritage will be conducted at the feasibility or exploration stage for a new or modified/expanded project (e.g. if the mining of remnant areas proceeds). They will establish the boundaries of the baseline study, location, type and significance of the site (including AHIMS database known sites). Where required, the studies will involve archaeological experts and Aboriginal representatives. All of the potential environment and community risks and impacts, relevant legislation, standards and consent condition requirements will also be identified. Information obtained from these studies is to be used (where applicable) to develop management and monitoring programs.	No new or expanded/modified projects are planned for the site.	Not triggered
4.9.2	Baseline studies of biodiversity and land management will be conducted at the feasibility or exploration stage for a new or modified/expanded project. They will establish existing conditions of biodiversity and land use and degradation, identify all of the potential environmental risks, assess the potential impacts and identify relevant legislation and consent condition requirements. These studies are generally undertaken in association with an Environmental Assessment (EA), Environmental Impact Statement (EIS), Review of Environmental Factors (REF) or Statement of Environmental Effects (SEE). Information provided by these studies is used to develop appropriate management plans and monitoring programs.	No new or expanded/modified projects are planned for the site.	Not triggered
4.9.3	Existing environmental baseline studies will be used as the basis for the development and refinement of mine closure rehabilitation criteria. Rehabilitation criteria will subsequently be included in the detailed Mine Closure Plan for Baal Bone in accordance with XCN SD ANN 0038 10.1 Mine Closure Planning. Any additional data obtained from baseline studies conducted for new projects will be incorporated into the detailed Mine Closure Plan as appropriate.	Noted by the auditors	Not triggered
5. IMPLEMENTATION			
5.1 Roles and Responsibilities			
5.1	All employees and contractors shall have the following arrangements communicated during training sessions: <ul style="list-style-type: none"> • Their roles, responsibilities and accountabilities in relation to environmental management; • Their authority to act on environmental issues; • Their reporting relationships to the environment and community department; and • Their specific and measurable Environment and Community performance indicators. 	Included in the site-specific training package. Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
5.2 Environmental Standards, Management Plans and Procedures			
5.2	Environmental management at Baal Bone is undertaken through the development and implementation of standards, associated management plans and procedures, and records. XC and XCN Standards and Policies are interpreted and implemented through SD Standards and Policies. Baal Bone may then either use these standards directly at the colliery or develop its own standards. The relationship between the various standards and policies is described in Figure 5.	Noted by the auditors	
	<pre> graph TD Xstrata_plc[Xstrata plc] --> Xstrata_top[Xstrata] Xstrata_top --> Xstrata_mid[Xstrata] Xstrata_mid --> Baal_Bone[Baal Bone] Baal_Bone --> EMS[Baal Bone EMS, Management] Xstrata_mid --> EMS </pre>	Noted by the auditors	
5.2	Environment and Community Management Plans have been developed at Baal Bone Colliery to meet the various commitments within the Policies and Standards of the EMS and in some cases, Licence and Development Consent conditions. The Plans and Procedures are revised regularly to reflect the changes in operational practices, legislative requirements and industry best practice.	Noted by the auditors	Compliant
5.3 Energy and Greenhouse Gas			
5.3	Baal Bone manages energy consumption and greenhouse gas emissions in accordance with XCN SD GDL 0018 Guideline for XCN Energy and Greenhouse Framework. This framework outlines the energy and greenhouse gas management and reporting requirements of XCN, and all NSW operations including Baal Bone Colliery.	Noted by the auditors	Compliant
5.4 Training, Awareness and Competence			
5.4	Environmental management training at Baal Bone Colliery is undertaken in accordance with XCN SD GDL 0003 3.0 Behaviour, Awareness and Competency.	Noted by the auditors	Compliant
	Baal Bone's Training and Competency Management Plan (BBN SD PLN 0045) outlines the processes used to identify, plan and schedule training activities. A formal training needs analysis is completed regularly and specific training programs are developed and presented as required.	Training Needs Analysis reviewed by the auditors	Compliant
	Records are maintained of training undertaken, including the results of competency assessment and due date for re-induction or refresher training as required by BBN SD PLN 0045 Training and Competency Management Plan.	DAMSTRA is used for the management of competencies and training.	Compliant

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
5.5 Activity Risk Assessments and Work Permits			
5.5	If there are changes to existing activities/processes, or new projects are proposed that have potential for environmental impact, a work authorisation is required before the works can commence. The work authorisation is a risk management tool designed to ensure the proposed works have the required environmental approval and that the person(s) undertaking the works have appropriately managed risks to minimise impacts on the environment and community.	Not in the audit period	Not triggered
	This work authorisation process is in accordance with the steps outlined in XCN SD ANN 0060 8.4 Hazardous Task Management and Work Permits. The form 'XCN SD FRM 8.4.001 Work Authorisation' provides a checklist of environmental aspects that must be completed and approved by the E&C Department prior to the commencement of any work.	Not in the audit period	Not triggered
5.6 Contractor Management			
	Contractor management at Baal Bone Colliery is undertaken in accordance with XCN SD GDL 001 11.0 Contractors, Suppliers and Partners. All service providers and suppliers contracted by Baal Bone are expected to conform to the requirements of the BBN SD GDL 0040 Contractor Management Guideline.	Noted by the auditors	Compliant
5.6	The Baal Bone Contractor Management Guideline describes the requirements and processes for: <ul style="list-style-type: none"> • Contractor pre-qualification; • Contract preparation; • Management of contractors; • Evaluation of contractors and contracts; and • Training and communication with contractors. 	Noted by the auditors	Compliant
	All contractors are expected to comply with the Baal Bone EMS.	Noted by the auditors, sighted in induction documentation.	Compliant
5.7 Control of Documents and Records			
	Baal Bone's environment and community records are to be maintained in accordance with the XCN SD GDL 0007 7.0 Legal Compliance and Document Control Guideline. This includes requirements to maintain records that are readily retrievable, available and referenced, enabling demonstration of compliance to legislative and corporate requirements.	Noted by the auditors, document retrieval during the audit process was acceptable.	Compliant

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
5.7	<p>Baal Bone has developed a site specific standard that defines the document control and records management processes implemented on-site – BBN SD STD 0005 Document and Data Control.</p> <p>Baal Bone’s means of controlling documents and records includes:</p> <ul style="list-style-type: none"> • Electronic copies of all environmental management documents are stored on Baal Bone’s computer network drive; • Electronic copies of all EMS documents are stored on Xstrata’s document control system ‘SharePoint’; • From 2012 compliance documents and records are stored on a specific XCN database ‘CMO Compliance’; and • Incidents and complaints, and risk register templates are stored on the Xstrasafe database. 	Reviewed by the auditors.	Compliant
	<p>Access to SharePoint for viewing environment and community documents is available to all employees and contractors with an XCN user login. A public computer is available in the Muster Room area at Baal Bone Colliery – which allows access to SharePoint.</p>	Noted by the auditors	Compliant
6. COMMUNICATIONS AND INCIDENT MANAGEMENT			
6.1 Internal Communications			
	Internal stakeholder communication is undertaken in accordance with XCN SD GDL 0004 4.0 Communication and Engagement.	Noted by the auditors	Compliant
	Health and safety information is to be communicated in accordance with BBN SD GDL 0039 Information and Communication Arrangements.	Noted by the auditors	Compliant
6.1	<p>The Baal Bone Environment and Community Officer will provide a monthly Environment and Community Report through the Xstrasafe database. The Environment and Community Report provides senior management the following information as a minimum:</p> <ul style="list-style-type: none"> • key environmental issues to be highlighted to senior management; • approvals including timing and issues relating to the approvals; • issues relating to water management in particular any potential interruption to operations; • status of rehabilitation against the approved MOP and details of rehabilitation undertaken within the month; • relevant information in relation to energy and greenhouse including significant issues with the progress of ESAP’s; • an update on community activities undertaken during the month including CSI 	Reviewed by the auditors.	Compliant
6.2 External Communications			
	Internal and external stakeholder communication is undertaken in accordance with XCN SD GDL 0004 4.0 Communication and Engagement and XCN SD GDL 0012 12.0 Social and Community Engagement.	Noted by the auditors	

Reference	Requirement	Evidence	Audit Finding												
Environmental Management Strategy (July 2012)															
6.2	Baal Bone's stakeholder engagement process involves the following four steps: <ul style="list-style-type: none"> • Identification of stakeholders; • Identification of stakeholders information requirements and timing; • Assigning responsibility for undertaking the engagement; • Recording of all stakeholder communication. 	Noted by the auditors	Compliant												
	<table border="1"> <thead> <tr> <th>Type of Stakeholder Engagement / Communication</th> <th>Frequency</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>CCC Meetings</td> <td>Six Monthly</td> <td>At least six monthly community consultative committee meetings.</td> </tr> <tr> <td>Community Newsletters</td> <td>Six Monthly</td> <td>At least six monthly newsletters distributed to local community and published on Baal Bone website.</td> </tr> <tr> <td>Other face-to-face consultation</td> <td>As required</td> <td>Meetings with representatives from regulatory authorities, and or local stakeholders/land holders as required.</td> </tr> </tbody> </table>	Type of Stakeholder Engagement / Communication	Frequency	Description	CCC Meetings	Six Monthly	At least six monthly community consultative committee meetings.	Community Newsletters	Six Monthly	At least six monthly newsletters distributed to local community and published on Baal Bone website.	Other face-to-face consultation	As required	Meetings with representatives from regulatory authorities, and or local stakeholders/land holders as required.	Previous two community newsletters (March 2012, May 2013) have been on an annual frequency, available on the website. CCC met in May and November 2012 and November 2013.	Non-compliant
	Type of Stakeholder Engagement / Communication	Frequency	Description												
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Community Newsletters	Six Monthly	At least six monthly newsletters distributed to local community and published on Baal Bone website.													
Other face-to-face consultation	As required	Meetings with representatives from regulatory authorities, and or local stakeholders/land holders as required.													
Contact details for key external stakeholders can be found in BBN SD REG 0013 Stakeholder and Community Contact Details.	Noted by the auditors	Compliant													
6.3 Complaints															
6.3	Community complaints at Baal Bone Colliery are managed in accordance with XCN SD GDL 0004 4.0 Communication and Engagement.	No complaints in the audit period.	Not triggered												
	Baal Bone Colliery operates an incident reporting and inquiry telephone line (02 6350 6900) advertised to the public via the Baal Bone website, the EPA and public notices such as newsletters. Community complaints are forwarded to the Environment and Community Officer and managed in accordance with BBN SD PRO 0012 Community Complaints Management Procedure.	Telephone line is advertised on the Baal Bone website and the community newsletter, however could not find through EPA.	Non-compliant												
	The Environment and Community Officer is responsible for the complaint management process, including: <ul style="list-style-type: none"> • Acknowledging all complaints, responding to the complainant within 24 hours (where practicable); • Registering all complaints in Xstrasafe; • Investigating complaints impartially giving proper consideration to the facts and the circumstances prevailing at the time; • Implementing corrective actions if required; and • Reporting to relevant stakeholders the investigation outcomes and corrective actions taken. 	No complaints in the audit period.	Not triggered												
	Complaints are reported in accordance with XCN SD PRO 0011 Reporting Critical and Other Serious Incidents.	No complaints in the audit period.	Not triggered												

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
	Details and number of complaints are reported annually in the Annual Review and in the Annual Return for EPL 765 in accordance with Baal Bone's reporting requirements. As per Project Approval 09_0178 a complaints register (updated quarterly) is published on the Baal Bone webpage.	Complaints are reported in the Annual Review and the register is updated quarterly and available on the website.	Compliant
6.4 Non-Conformance, Corrective and Preventative Action			
6.4	An incident or non-conformance is defined as: <ul style="list-style-type: none"> • Any inspection/test result that does not meet the acceptance criteria specified in any environmental approvals or relevant standard or legislation; • Any notice of non-compliance issued by a government agency with environmental jurisdiction; • Any non-conformance with identified objectives and targets; • Any action that causes unapproved environmental harm; • A community complaint. 	Noted by the auditors	
	The incident or non-conformance may be from routine inspections, audits or monitoring, or it can be from an external complaint or an internal incident.	Noted by the auditors	
	As soon as practicable following an incident, the Environment and Community Officer will complete BBN SD FRM 0055 Environmental Incident Report Form & Community Complaint Report Form to record details. All incidents are entered into Xstrasafe.	No environmental incidents in the audit period	Not triggered
	Any non-conformance encountered are documented and the cause investigated by the Baal Bone Environment and Community Officer. The Baal Bone Environment and Community Officer will then recommend corrective and/or preventative actions. The effectiveness of the corrective and/or preventative actions is assessed by the analysis of the next monitoring results, site inspections or audit findings.	The audit team reviewed the non-compliances identified by the site including water exceedences, the discharge event and the lack of access to the dust gauge and found them to be compliant with this requirement.	Compliant
	Reporting of environment and community incidents or non-conformances is to be undertaken in accordance with BBN SD GDL 0023 Measurement and Reporting.	The audit team reviewed the non-compliances identified by the site including water exceedences, the discharge event and the lack of access to the dust gauge and found them to be compliant with this requirement.	Compliant
6.5 Emergency Preparedness and Response			
6.5	All personnel receive emergency preparedness and response training during their site familiarisation induction. Environmental emergencies at Baal Bone will be managed in accordance with BBN SD PLN 0001 Emergency Management System. The System is maintained on the intranet. The Environment and Community Officer is responsible for overseeing the investigation of environmental incidents and emergencies, and shall recommend any further action required to manage the incident.	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding												
Environmental Management Strategy (July 2012)															
6.6 Incident Reporting															
6.6	Environmental incidents are managed and communicated in accordance with XCN SD ANN 0050 16.1 Measurement and Reporting Annexure.	Noted by the auditors	Compliant												
	The Baal Bone Environment and Community Officer or Operations Manager will notify immediately each listed authority in accordance with section 148 of the Protection of the Environment Operation (POEO) Act 1997 of pollution incidents where a "pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened". Reporting of environment and community incidents or non-conformances is to be undertaken in accordance with BBN SD GDL 0023 Measurement and Reporting.	No incidents were notifiable in the audit period	Not triggered												
	The Baal Bone Environmental and Community Officer or Operations Manager will notify the Department of Planning and Infrastructure, DTIRIS and/or Environment Protection Authority of breaches of environmental conditions in accordance with the site Development Consent Conditions and/or the conditions of the Environmental Protection Licence (as required).	Noted and verified in the review of the environmental incidents	Compliant												
7. MONITORING, EVALUATION AND REPORTING															
7.1 Monitoring															
7.1	A number of key environmental performance parameters are monitored and/or measured on a regular basis at Baal Bone in accordance with XCN SD GDL 0016 16.0 Monitoring and Review.	Noted by the auditors	Compliant												
	The location and sampling regime for all environmental parameters are outlined in BBN SD REG 0014 – Environmental Monitoring Register.	Includes GPS coordinates, sampling frequency and site specific comments. Includes a site map of monitoring points	Compliant												
	Trained personnel undertake all monitoring using industry accepted monitoring techniques with equipment calibrated to relevant Australian standards. Analysis of all samples required by EPL 765 is completed in NATA approved laboratories.	Noted by the auditors	Compliant												
	From mid 2012 monitoring results are stored on the Baal Bone Colliery Environmental Monitoring Database (EMD). The EMD is a web-based database that provides automatic email notification to Environment and Community personnel when a monitoring point is approaching, or has exceeded a nominated trigger level for non-compliance.	Noted by the auditors	Compliant												
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Type of Monitoring Review/Report	Frequency	Description													
Daily planning meetings	Daily	Management review, including environment and community issues.													
Monthly HSEC Meeting	Monthly	Monthly Health, Safety, Environment and Community meeting													
Monthly EPL Report	At least monthly	A summary of monitoring results in accordance with the requirements of EPL 765 and POEO Act.													

Reference	Requirement			Evidence	Audit Finding
Environmental Management Strategy (July 2012)					
7.1	Quarterly Environmental Performance Report	Quarterly	A summary and review of quarterly monitoring results at Baal Bone including: air quality, surface water and noise results.	Reviewed by the auditors.	Compliant
	Quarterly Environment and Community Meetings	Quarterly	A quarterly meeting of environment and community team member across XCN.		
	Attended Noise Monitoring	As per approved Noise Management Plan	A summary and review of attended noise monitoring results in accordance with PA 09_0178 and EPL 765.		
	EPL 765 Annual Return	Annual	A requirement of Baal Bone EPL 765. The annual return summaries all pollution monitoring and complaints for the period twelve months (calendar year).		
	Annual EMS Review	Annual	An annual EMS review with Baal Bone personnel, and others as required.	Most recent Env and Community RA conducted in March 2012. Annual review conducted as part of the budget process for the site, not well documented.	Compliant
	Annual Review/Annual Environmental Management Report (AEMR)	Annual	A statutory report that provides a summary and review of all statutory monitoring results, and environment and community performance for the previous calendar year, in accordance with PA 09_0178 and various mining leases.		
	Environment and Community Risk Assessment (and update of Aspects and Impacts Register)	Annual	Annual review of environment and community risks associated with operations at Baal Bone Colliery.		
7.2 Inspections					
7.2	Environmental inspections are undertaken on a weekly frequency, with the Environment and Community Officer completing inspections at least monthly. The inspection schedule and scope is outlined in BBN SD REG 0014 – Environmental Monitoring Register. The objectives of the environmental inspections are to: <ul style="list-style-type: none"> • Identify any potential non-conformances or environmental incidents that have not been previously identified/reported; and • Maintain a visual presence around the site to promote environmental awareness to mine personnel, contractors and trainees. 			Weekly Work Order inspections are undertaken as well as monthly inspections of rehabilitation areas	Compliant
	Inspection results are recorded on Inspection (Work Order) sheets, and actions arising from the inspections are discussed with the relevant department manager or supervisors at daily planning meetings.			Results recorded on work order sheets and actions discussed at daily planning meetings	Compliant

Reference	Requirement	Evidence	Audit Finding																
Environmental Management Strategy (July 2012)																			
7.3 Internal and External Audits																			
7.3	<p>Auditing at the Baal Bone Colliery is undertaken in accordance with XCN SD GDL 0016 16.0 Monitoring and Review and XCN SD ANN 0051 16.2 Auditing. These documents specify a formal auditing process to:</p> <ul style="list-style-type: none"> • Determine compliance with legislation; • Determine compliance with Xstrata plc, XCN, site approvals and applicable external standards; • Evaluate the effectiveness of the site's environmental management system; and Identify system deficiencies and opportunities to correct and continuously improve performance. 	Noted by the auditors																	
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Other internal audits	As determined by operation's level of risk	Internal audits	Department or Operations Manager																

Reference	Requirement	Evidence	Audit Finding											
Environmental Management Strategy (July 2012)														
7.3	Following completion of an audit, an action plan summarising the recommendations, planned actions, accountabilities and due-by dates is completed. The action plan is then added to Xstrasafe to manage the identified actions. A record of all audit documentation is kept on site in accordance with XCN SD GDL 0007 7.0 Legal Compliance and Document Control.	Action plan from 2011 external consent compliance audit sighted on Baal Bone website. Noted by the auditors	Compliant											
7.4 Environmental Reporting														
7.4	The Baal Bone Environment and Community Officer facilitates the environmental reporting requirements outlined in Table 5 as a minimum.	Noted												
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XSD Reporting	Monthly	XCN Group Environment and Community Manager	Baal Bone EMS XCN SD Framework											
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Coal Haulage Reports	Quarterly	Published on Baal Bone webpage	Published on Baal Bone webpage											
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7.5 Annual EMS Management Review																			
7.5	<p>The Environment and Community Officer and Operations Manager, together with Department Managers (as required) undertake an annual review of the EMS to include the following as required:</p> <ul style="list-style-type: none"> • Review of audit findings; • Relevance and achievement of objectives and targets to current and future conditions; • Performance against environmental programs including monitoring results; • Review of corporate roles and functions; • Review of trends in community complaints, environmental incidents and non-conformances; • Follow-up actions from previous management reviews; • Changing legislation and regulation requirements; • Review of environment and community policies; • Review of aspects and impacts; and • Information and concerns of stakeholders. 	Anecdotally the review occurs but is not documented. It is not strictly an environmental task but is combined with heads of departments and is documented as part of the budget process.	Compliant																

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
7.5	The annual review occurs immediately before Baal Bone's budget planning cycle so that adequate resources can be allocated to provide for continual improvement of the EMS. The outcomes of the review shall be documented and the EMS resubmitted to the Department of Planning and Infrastructure (as required). Performance criteria will be used to evaluate environmental and social performance against the policy, objectives and targets.	Anecdotally the review occurs but is not documented. It is not strictly an environmental task but is combined with heads of departments and is documented as part of the budget process. All EMS revisions have been submitted for DGs approval.	Compliant
9. ACCOUNTABILITIES			
Baal Bone Operations Manager	<ul style="list-style-type: none"> • have a working knowledge of the EMS and shall be aware of the environmental legislative requirements associated with the operation; • ensure that mine operations under their control are conducted in accordance with the EMS, in particular the operational and environmental procedures; • provide adequate resources and training to implement the EMS; • authorise environmental management plans and procedures to be implemented; • involve the Environment and Community Officer in the assessment of any proposed or new works associated with the operation that may have an environmental impact; • be responsible for all aspects of environmental compliance; • be responsible for the monitoring of environmental performance; and • include environment and community issues in the budget planning process. 	Noted by the auditors and verified in discussion with the Ops Manager	Compliant

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
<p>Baal Bone Environment and Community Officer</p>	<ul style="list-style-type: none"> • ensure that a site EMS is established, implemented and maintained in accordance with AS/NZ ISO 14001:2004, and includes commitments outlined in the Environment and Community Policies; • maintain and control environmental information files including but not limited to the following: <ul style="list-style-type: none"> • environment and community policy; • EMS framework document; • management plans and environmental procedures; • monitoring results; • statutory environmental reports; and • legislative requirements and documentation including: licences, permits, approvals, community liaison documentation, pollution incident register, authority liaison documentation • undertake liaison with authorities and the community regarding routine matters; • prepare annual statutory reports of compliance and related reports, including the AEMR, NPI, NGRS, and EPL Annual Return • record and report all environmental incidents and community complaints; • supervise document and report on the execution of emergency response to environmental incidents; • review and endorse all corrective actions arising from environmental incidents and community complaints; • assess the suitability of and co-ordinate the activities of specialist sub-consultants and other project personnel with environmental assessment/monitoring/audit responsibilities; • develop and deliver appropriate environmental training programs for the mine; • co-ordinate monitoring and inspections; and to forward the results and any recommendations to the relevant site personnel for remedial action; • provide environmental risk assessments and formulate management protocols for proposed works associated with existing operation and any new or altered works; and prepare monthly environmental report to be provided to the Operations Manager and Group Environment and Community Manager and provide timely information for other group reporting. 	<p>Noted by the auditors</p>	<p>Compliant</p>

Reference	Requirement	Evidence	Audit Finding
Environmental Management Strategy (July 2012)			
All Baal Bone Supervisors	<ul style="list-style-type: none"> • conduct mine operations under their control in accordance with the EMS and all associated management plans and procedures; • report to the Baal Bone Environment and Community Officer any witnessed or knowledge of environmental incident or community complaint; • maintain environmental control systems in a proper and efficient condition; • assist in development and delivery of appropriate environmental training programs for the site; • assist in relevant environmental risk assessments and implement identified measures to manage these risks; and • liaise with the Baal Bone Environment and Community Officer regarding environmental controls necessary for any new work activities. 	Noted by the auditors	Compliant
All Baal Bone Employees, Contractors and Trainees	<ul style="list-style-type: none"> • be aware of Baal Bone Colliery's Environment and Community Policies, and EMS, and be responsible and accountable for the environmental impact of work they perform; • conduct their activities in accordance with the EMS and all associated management plans and procedures; and • immediately report environmental incidents to supervisors, or directly to the Baal Bone Environment and Community Officer. 	Noted by the auditors, sighted in site induction.	Compliant

Reference	Requirement	Evidence	Audit Finding									
Air Quality Monitoring Program (July 2012)												
3. STATUTORY REQUIREMENTS												
3.1 Project Approval 09_0178												
3.1	The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedences of the criteria listed in Tables 3, 4 and 5 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.											
	<table border="1"> <caption>Table 3: Long term criteria for particulate matter</caption> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^dCriterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a30 µg/m³</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									
	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³									
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<table border="1"> <caption>Table 3: Short term criterion for particulate matter</caption> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^aCriterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a50 µg/m³</td> </tr> </tbody> </table>	Pollutant	Averaging period	^a Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³						
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<table border="1"> <caption>Table 5: Long term criteria for deposited dust</caption> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase^b in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^cDeposited dust</td> <td>Annual</td> <td>^b2 g/m²/month</td> <td>^a4 g/m²/month</td> </tr> </tbody> </table>	Pollutant	Averaging period	Maximum increase ^b 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				
Pollutant	Averaging period	Maximum increase ^b 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									
<ul style="list-style-type: none"> • a Total impact (i.e. incremental increase in concentrations due to the project plus background concentrations due to other sources); • b Incremental impact (i.e. incremental increase in concentrations due to the project on its own); • c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and • d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agree to by the Director-General in consultation with DECCW. 												

Reference	Requirement	Evidence	Audit Finding
Air Quality Monitoring Program (July 2012)			
3.1	Please note that while Baal Bone Colliery is in Care and Maintenance, monitoring for PM10 and TSP is not required as per the approved Air Quality Monitoring Program.	Monitoring for PM10 and TSP was discontinued in June 2012.	Compliant
3.1	The Proponent shall:		
	(a) ensure any that any air pollution generated by the project which is visible from privately owned land or public roads is assessed regularly, and that operations are modified and/or stopped as far as is reasonable and feasible to minimise air quality impacts on privately-owned land;	Not applicable in suspended operations phase.	
	(b) ensure that the real-time air quality monitoring and meteorological forecasting data are assessed regularly, and that operations are modified and/or stopped as required to ensure compliance with the relevant air quality criteria; and	Not applicable in suspended operations phase.	
	(c) implement all reasonable and feasible measures to minimise off-site odour, fume and dust emissions generated by the project, to the satisfaction of the Director-General.	Not applicable in suspended operations phase.	
3.1	The Proponent shall prepare and implement a Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program must:	Air Quality Monitoring Program developed and submitted to DP&I but not currently approved.	Not triggered
	(a) be prepared in consultation with DECCW, by a suitably qualified expert whose appointment has been approved by the Director-General;	No evidence of expert approval by DG.	Non-compliant
	(b) be submitted to the Director-General for approval within 3 months of the date of this approval, or as; otherwise agreed by the Director-General;	Program lists 1 September 2011 as first revision date, not within 3 months of the Project Approval - outside the audit period	Not Triggered
	(c) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including the proposed real-time air quality management system; and	The AQMP contains this information	Compliant
	(d) include an air quality monitoring program, using a combination of real-time monitors, high volume samplers and dust deposition gauges to monitor the performance of the project, and a protocol for determining exceedences with the relevant conditions of this approval.	The AQMP contains this information	Compliant
	<i>Note: The air quality monitoring program may incorporate monitoring from any relevant regional monitoring network endorsed by DECCW.</i>	Noted but not triggered	Not triggered
3.1	The Proponent shall implement the following existing operational practices in the Surface Infrastructure Area to minimise air quality impacts to the surrounding environment as contained in the Mine Operations Plan:	Not applicable in suspended operations phase.	
	•Conveyors and transfer points are either fully or partially enclosed on the side of the prevailing winds;	Not applicable in suspended operations phase.	
	•Spraying of stockpiles to minimise dust;	Not applicable in suspended operations phase.	
	•Watering of haul road to minimise dust;	Not applicable in suspended operations phase.	
	•Regular cleaning of areas that may generate dust; and	Not applicable in suspended operations phase.	
	•Appropriate ventilation of operational mine shafts.	Not applicable in suspended operations phase.	

Reference	Requirement	Evidence	Audit Finding
Air Quality Monitoring Program (July 2012)			
	The Proponent will monitor potential impacts to air quality resulting from dust in accordance with the Environment Protection Licence (EPL) applying to the Project area and report any potential impacts according to the requirements of the EPL.	Noted see assessment of EPL.	Compliant
	The Proponent shall operate the premises to seek to avoid exceedances of air quality impact assessment criteria identified in Section 15.3 the EA.	No exceedances in the audit period	Compliant
3.2 Legislative Requirements			
3.2	The POEO Act allocates responsibilities for pollution prevention and control to the Environment Protection Authority (EPA), local councils and other public authorities. The EPA is the appropriate regulatory authority for regulating activities listed in Schedule 1 of the POEO Act (most mines are defined as Schedule 1), ensuring compliance with environment protection licences and regulating activities carried out by the state or a public authority.	Noted by the auditors	
3.3 Guidelines			
3.3	The NSW DECCW Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (DEC, 2005), hereon referred to as the Approved Methods, lists the statutory methods for modelling and assessing emissions of air pollutants from ambient environments. The Approved Methods outlines the requirements for developing air dispersion modelling methodology, analysing meteorological data, and the criteria applicable when considering the potential impacts as a result of operations at the site.	ALS certificates not quoted as being per the EPA Approved Methods, most recent certificate provided as evidence indicates that the same methodology is used and that it is in compliance with the approved methods indicating that the preceding lab certificates were also compliant.	Compliant
3.3	This Program was prepared with consideration of the following statutory documents: <ul style="list-style-type: none"> • Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (DEC, 2005); • Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2005). 	ALS certificates not quoted as being per the EPA Approved Methods, most recent certificate provided as evidence indicates that the same methodology is used and that it is in compliance with the approved methods indicating that the preceding lab certificates were also compliant.	Compliant
3.4 Environmental Protection Licence			
3.4	Section 2, Condition P1.1 stipulates air monitoring points for the site. The points relate to dust deposition monitoring at five locations (ID 7, 13, 14, 15 and 16) defined by the EPA based on the plan titled "Baal Bone Colliery - 2011 Licensed Monitoring Sites" dated 17 January 2012.	These are addressed in the review of the EPL	
3.4	Section 4 Operating Conditions, Condition O3.1 states: The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	These are addressed in the review of the EPL	
3.4	Section 5, condition M2.1 stipulates the pollutants which should be monitored at the above mentioned locations.	These are addressed in the review of the EPL	
	The licence states the below requirements (Table 5) for each of the five monitoring locations:	These are addressed in the review of the EPL	

Reference	Requirement	Evidence	Audit Finding																	
Air Quality Monitoring Program (July 2012)																				
3.4	<p>Table 5: EPL Air Quality Monitoring Requirements</p> <table border="1"> <thead> <tr> <th>EPA Identification Number</th> <th>Pollutant</th> <th>Units of Measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>7, 13, 14, 15 and 16</td> <td>Particulates – Deposited Matter</td> <td>Grams per square metre per month</td> <td>Once a month (min of 4 weeks)</td> <td>Australian Standard 3580.10.1-2003</td> </tr> </tbody> </table>	EPA Identification Number	Pollutant	Units of Measure	Frequency	Sampling Method	7, 13, 14, 15 and 16	Particulates – Deposited Matter	Grams per square metre per month	Once a month (min of 4 weeks)	Australian Standard 3580.10.1-2003	These are addressed in the review of the EPL								
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7, 13, 14, 15 and 16	Particulates – Deposited Matter	Grams per square metre per month	Once a month (min of 4 weeks)	Australian Standard 3580.10.1-2003																
3.4	Section 8 Special Conditions (Recommencement of Mining) discusses the EPA's intention to include a Pollution Reduction Program to reduce particulate emissions from coal mining activities, if coal mining recommences on-site.	These are addressed in the review of the EPL																		
3.4	<p>Condition E1.1 states: The licensee must notify the EPA's Manager, Bathurst Region in writing prior to the recommencement of mining for coal or handling of coal on the premises.</p>	These are addressed in the review of the EPL																		
4. MONITORING AND REPORTING																				
4.2 Monitoring Equipment Specifications																				
4.2.1	<p>Pollutants Measured: Deposited dust Standards Applicable: • AS/NZS 3580.10.1:2003; Method 10.1: Determination of particulate matter – Deposited matter – Gravimetric method</p> <p>These dust gauges (Dust Deposition Gauges) are collected every 30 ± 2 days in general accordance with the requirements of AS/NZS 3580.10.1:2003 and are analysed for ash content and total insoluble matter.</p>	2012 AEMR confirms monthly sampling to this standard and method.	Compliant																	
4.3 Monitoring Agenda																				
4.3	The monitoring locations listed in Table 6 and shown in Figure 2 allow the collection of data for quantification of potential air quality impacts from the Baal Bone Mining activities on the surrounding area in accordance with Project Approval 09_0178 Schedule 3, Conditions 10 to 13. These locations include those already monitored in accordance with the sites EPL.	These are addressed in the review of the EPL																		
	<p>Table 6: Air Quality Monitoring Locations</p> <table border="1"> <thead> <tr> <th rowspan="2">ID</th> <th rowspan="2">Monitoring Equipment</th> <th rowspan="2">Description</th> <th colspan="2">Location (UTM Zone 56H)</th> </tr> <tr> <th>East</th> <th>South</th> </tr> </thead> <tbody> <tr> <td>DM1</td> <td>DDG</td> <td>EPL Monitoring Point No. 7</td> <td>224500</td> <td>6315420</td> </tr> <tr> <td>DM2^a</td> <td>DDG</td> <td>EPL Monitoring Point No.13</td> <td>224730</td> <td>6316128</td> </tr> </tbody> </table>	ID	Monitoring Equipment	Description	Location (UTM Zone 56H)		East	South	DM1	DDG	EPL Monitoring Point No. 7	224500	6315420	DM2 ^a	DDG	EPL Monitoring Point No.13	224730	6316128	These are addressed in the review of the EPL	
	ID				Monitoring Equipment	Description	Location (UTM Zone 56H)													
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DM2 ^a	DDG	EPL Monitoring Point No.13	224730	6316128																
<table border="1"> <tbody> <tr> <td>DM3</td> <td>DDG</td> <td>EPL Monitoring Point No.14</td> <td>226780</td> <td>6316320</td> </tr> <tr> <td>DM4</td> <td>DDG</td> <td>EPL Monitoring Point No.15</td> <td>226900</td> <td>6317190</td> </tr> <tr> <td>DM5^a</td> <td>DDG</td> <td>EPL Monitoring Point No.16</td> <td>224490</td> <td>6317174</td> </tr> </tbody> </table>	DM3	DDG	EPL Monitoring Point No.14	226780	6316320	DM4	DDG	EPL Monitoring Point No.15	226900	6317190	DM5 ^a	DDG	EPL Monitoring Point No.16	224490	6317174	These are addressed in the review of the EPL				
DM3	DDG	EPL Monitoring Point No.14	226780	6316320																
DM4	DDG	EPL Monitoring Point No.15	226900	6317190																
DM5 ^a	DDG	EPL Monitoring Point No.16	224490	6317174																

Reference	Requirement	Evidence	Audit Finding															
Air Quality Monitoring Program (July 2012)																		
4.5 Monitoring Schedule																		
4.5	The monitoring schedule to be used throughout operation of the site, as shown in Table 7, has been developed to meet the requirements of Project Approval 09_0178 including Appendix 3 Statement of Commitments, Environment Protection Licence (No. 765) and other applicable licences and legislation. The current dust deposition gauges installed at the site, as required by Baal Bone's EPL, will be maintained and monitored in accordance with the EPL and the agenda below.	Schedule is as per monitoring recorded for the site.	Compliant															
	<p>Table 7: Air Quality Monitoring Agenda</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Equipment</th> <th>Frequency</th> <th>Locations</th> <th>Criteria</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td rowspan="5">Particulate Matter – Deposited Dust</td> <td rowspan="5">DDG</td> <td rowspan="5">Monthly</td> <td>DM1⁴</td> <td rowspan="5">4 g/m²/month as an annual average⁵</td> <td rowspan="5">AM-19 AS3580.10.1-2003</td> </tr> <tr> <td>DM2³</td> </tr> <tr> <td>DM3³</td> </tr> <tr> <td>DM4³</td> </tr> <tr> <td>DM5³</td> </tr> </tbody> </table>	Parameter	Equipment	Frequency	Locations	Criteria	Sampling Method	Particulate Matter – Deposited Dust	DDG	Monthly	DM1 ⁴	4 g/m ² /month as an annual average ⁵	AM-19 AS3580.10.1-2003	DM2 ³	DM3 ³	DM4 ³	DM5 ³	2012 AEMR confirms monthly sampling of all 5 gauges for deposited dust
Parameter	Equipment	Frequency	Locations	Criteria	Sampling Method													
Particulate Matter – Deposited Dust	DDG	Monthly	DM1 ⁴	4 g/m ² /month as an annual average ⁵	AM-19 AS3580.10.1-2003													
			DM2 ³															
			DM3 ³															
			DM4 ³															
			DM5 ³															

Reference	Requirement	Evidence	Audit Finding
Air Quality Monitoring Program (July 2012)			
4.6 Reporting			
4.6.1	Air quality monitoring results will be compiled and reported to internal management on a monthly basis. Monitoring results will be compared to assessment criteria to demonstrate compliance. Completed monitoring will be displayed against legislative monitoring requirements (see Section 3.0) as a demonstration of compliance with the requirements to undertake monitoring.	Reporting done through XSD by exception. Air Quality Monitoring Program should be reviewed and this requirement be removed as it is deemed not necessary.	Non-compliant
4.6.1	By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General. This review must:	AEMR, all sighted	Compliant
	(a) describe the works that were carried out in the previous calendar year, and the works that are proposed to be carried out over the current calendar year;	Completed in AEMR	Compliant
	(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against: • the relevant statutory requirements, limits or performance measures/criteria; • the monitoring results of previous years; and • the relevant predictions in the EA;	Not every monitoring results set was compared against previous years	Non-compliant
	(c) identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance;	Completed in AEMR	Compliant
	(d) identify any trends in the monitoring data over the life of the project;	Completed in AEMR	Compliant
	(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and (f) describe what measure will be implemented over the current calendar year to improve the environmental performance of the project.	Completed in AEMR	Compliant
4.6.1	In accordance with Condition 6, Schedule 5 of the Project Approval 09_0178; and in line with the POEO Act regular reporting on the environmental performance of the project and a community complaints register will be provided via the Baal Bone Website.	AE MR posted onto website in addition to the regular monitoring updates required by POEO Act revision	Compliant
4.6.2	In the event that any of the assessment criteria (see Section 3.0) are not met, the Environment and Community Officer will implement the Trigger Action Response Plan as per Section 5.0 of this Monitoring Program and ensure that all relevant management personnel are notified of proceedings as per Section 4.6.	Not in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
Air Quality Monitoring Program (July 2012)			
4.6.2	In addition to implementing the Trigger Action Response Plan, the Environment and Community Officer will complete an Environmental Incident Report Form and Community Complaint Report Form to record details of the occurrence and actions taken. Where applicable, completed forms should detail the following: <ul style="list-style-type: none"> • The indicators of the non-compliance, i.e. the trigger level or criteria exceeded, and include the pollutant type, date, time, duration, location and concentration; • Activities operating that may or are known to have contributed to the exceedence; • Weather conditions during the event; • A summary of any reviews of the operating procedures; and • Recommendations for mitigating the source of the exceedence where applicable. This may involve a short term response and/or a long term management plan. 	Not in the audit period	Not triggered
4.6.2	If an exceedence of assessment criteria is deemed to have caused or threatened 'material harm' to the environment, notification to relevant authorities is to be undertaken immediately after the pollution event in accordance with section 148 of the POEO Act and the Baal Bone HSEC Measurement and Reporting Standard.	Not in the audit period	Not triggered
4.6.2	As detailed in Condition 5, Schedule 5 of Project Approval 09_0178, the Director-General and any other relevant agencies will be notified of any incident associated with the project as soon as practicable after the proponent becomes aware of the incident. Within 7 days of the date of the incident, the proponent shall provide the Director-General and any relevant agencies with a copy of the environmental incident report form detailed above.	Not in the audit period	Not triggered
4.6.3	The Baal Bone Colliery community incident reporting and inquiry telephone number is (02) 6350 6900. If someone other than the Environment and Community Officer receives a complaint, they are to immediately complete the Baal Bone Environmental Incident Report Form and Community Complaint Report Form and forward to the Environment and Community Officer. The complaint or enquiry will be handled according to the Baal Bone Community Complaints Management Procedure and as detailed in the Environmental Management Strategy.	Not in the audit period	Not triggered
5. RESPONSE TO COMPLAINTS AND INCIDENTS			
	In the event that assessment criteria are exceeded, the Environmental and Community Officer will take action to assess the causes, consult with and discuss required remediation measures with affected parties and implement/upgrade mitigation measures to reduce the chance of a non-compliance reoccurring. Corrective actions should be taken as a tailored response to non-compliance in consideration of the severity and implications of the specific event. As a general guide, corrective actions may be undertaken according to the following Trigger Action Response Plan (Table 8).	Not in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding								
Air Quality Monitoring Program (July 2012)											
5	<p>Table 8: Trigger Action Response Plan</p> <table border="1"> <thead> <tr> <th>Trigger</th> <th>Action</th> <th>Response</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Air quality complaint received</td> <td>Investigate and identify likely dust source.</td> <td>If dust attributed to BBC review and modify mine operations.</td> </tr> <tr> <td>Document complaint and investigation in XstraSafe and Baal Bone Environmental Incident Report Form and Community Complaint Report Form.</td> <td>Respond to complainant with outcomes of investigation.</td> </tr> </tbody> </table>	Trigger	Action	Response	Air quality complaint received	Investigate and identify likely dust source.	If dust attributed to BBC review and modify mine operations.	Document complaint and investigation in XstraSafe and Baal Bone Environmental Incident Report Form and Community Complaint Report Form.	Respond to complainant with outcomes of investigation.	Not in the audit period	Not triggered
	Trigger	Action	Response								
Air quality complaint received	Investigate and identify likely dust source.	If dust attributed to BBC review and modify mine operations.									
	Document complaint and investigation in XstraSafe and Baal Bone Environmental Incident Report Form and Community Complaint Report Form.	Respond to complainant with outcomes of investigation.									
<table border="1"> <tbody> <tr> <td rowspan="2">Exceedance of PA 09_0178 and EPL 765 air quality assessment criteria</td> <td>Determine if exceedance of air quality assessment criteria has caused or threatened 'material harm' to the environment as per definition in section 147 of POEO Act.</td> <td>If material harm is caused or threatened immediately notify relevant authorities as per section 148 of the POEO Act.</td> </tr> <tr> <td> <p>Investigate and identify likely dust source.</p> <p>If the results of dust monitoring are greater than those in Section 3.1, within 2 weeks of obtaining the monitoring results, notify the Director-General, the affected landowners and tenants accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the criteria in Schedule 3 of PA 09_0178.</p> </td> <td> <p>If the dust is attributed to BBC review and modify mine operations.</p> <p>Review AQMP including frequency of attended noise monitoring.</p> <p>Document incident, investigation and outcomes in XstraSafe.</p> </td> </tr> </tbody> </table>	Exceedance of PA 09_0178 and EPL 765 air quality assessment criteria	Determine if exceedance of air quality assessment criteria has caused or threatened 'material harm' to the environment as per definition in section 147 of POEO Act.	If material harm is caused or threatened immediately notify relevant authorities as per section 148 of the POEO Act.	<p>Investigate and identify likely dust source.</p> <p>If the results of dust monitoring are greater than those in Section 3.1, within 2 weeks of obtaining the monitoring results, notify the Director-General, the affected landowners and tenants accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the criteria in Schedule 3 of PA 09_0178.</p>	<p>If the dust is attributed to BBC review and modify mine operations.</p> <p>Review AQMP including frequency of attended noise monitoring.</p> <p>Document incident, investigation and outcomes in XstraSafe.</p>	Not in the audit period	Not triggered				
Exceedance of PA 09_0178 and EPL 765 air quality assessment criteria		Determine if exceedance of air quality assessment criteria has caused or threatened 'material harm' to the environment as per definition in section 147 of POEO Act.	If material harm is caused or threatened immediately notify relevant authorities as per section 148 of the POEO Act.								
	<p>Investigate and identify likely dust source.</p> <p>If the results of dust monitoring are greater than those in Section 3.1, within 2 weeks of obtaining the monitoring results, notify the Director-General, the affected landowners and tenants accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the criteria in Schedule 3 of PA 09_0178.</p>	<p>If the dust is attributed to BBC review and modify mine operations.</p> <p>Review AQMP including frequency of attended noise monitoring.</p> <p>Document incident, investigation and outcomes in XstraSafe.</p>									
6. REVIEW AND IMPROVEMENT											
6	Review of this AQMP will be conducted following any change in statutory requirements, operational or management procedures or following any serious or repeated failure to meet assessment or trigger levels.	Not in the audit period	Not triggered								
6	Review of this plan will also occur as part of the annual EMS review, and following an incident or audit report as required under Schedule 5, Condition 4 of Project Approval 09_0178:	Annual Review was conducted June 2012. The Plan was reviewed as per the letter to DoP in 2013 stating no changes were made.	Compliant								
	Within 3 months of the submission of an:	Noted, no requirements for review identified in these documents									
	(a) audit report under condition 8 of schedule 5; (b) incident report under condition 5 of schedule 5; and	Noted, no requirements for review identified in these documents Noted - No AQ incidents									

Reference	Requirement	Evidence	Audit Finding
Air Quality Monitoring Program (July 2012)			
	(c) annual review under condition 3 of schedule 5, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General. 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.	Noted, no requirements for review identified in these documents	
		Noted	
7. ACCOUNTABILITIES			
Baal Bone Colliery Operations Manager	<ul style="list-style-type: none"> • Oversight of all air quality monitoring on site • Be involved with Environment and Community Officer on development of new monitoring and mitigation initiatives and community engagement • Provide direction for environmental management in accordance with Baal Bone Colliery Environmental Policy; • Provide direction for the review of Baal Bone Colliery Environmental Policy; and • Provide adequate resources to implement the requirements of the Air Quality Monitoring Program. 	Noted by the auditors	Compliant
Baal Bone Colliery Environment and Community Officer	<ul style="list-style-type: none"> • Ensure all pollutant monitoring is undertaken in accordance with this monitoring program. • Provide reports in accordance with Section 4. 	Noted by the auditors	Compliant
Baal Bone Colliery Under Manager in Charge	<ul style="list-style-type: none"> • Implement incident reporting requirements; and • Implement the Trigger Action Response Plan described in this plan. 	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Aboriginal Cultural Heritage Management Plan (July 2012)			
2. STATUTORY REQUIREMENTS			
2.2 Approvals relevant to the protection of Indigenous Heritage			
2.2	The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:	Plan submitted to the DP&I but not approved at the time of the audit	Not Triggered
	(a) incorporate the existing Aboriginal Cultural Heritage Management Plan for Longwalls 29-31;	This information is incorporated	Compliant
	(b) be prepared in consultation with DECCW, relevant Aboriginal community groups and Council;	Consultation register in ACHMP confirms this.	Compliant
	(c) be submitted to the Director-General for approval within 6 months of the date of this approval;	14/06/2011 letter submitted to D-G.	Compliant
	(d) include programs and/or procedures for: <ul style="list-style-type: none"> • salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits which are at risk of significant impact within the project disturbance area; 	The ACHMP references procedures including the GDP that ensure compliance with this requirement however it is noted that no salvage or other form of recovery is planned or likely whilst the site is in a Suspended Operation phase.	Compliant
2.2	As a result the following requirements are were incorporated into the 2011 ACHMP: <ul style="list-style-type: none"> • Incorporate the existing Aboriginal Cultural Heritage Management Plan for Longwalls 29-31; • Be prepared in consultation with OEH, relevant Aboriginal community groups and Council; • Include programs and/or procedures for salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits which are at risk of significant impact within the project disturbance area; archaeological; • Managing the discovery of any new Aboriginal objects or skeletal remains found during the project; • Maintaining and managing access to archaeological sites by the Aboriginal community; and • Ongoing consultation with, and involvement of, relevant Aboriginal stakeholder groups in the conservations and management of Aboriginal cultural heritage at the project site. 	All items are compliant	Compliant

Reference	Requirement	Evidence	Audit Finding
Aboriginal Cultural Heritage Management Plan (July 2012)			
3. ABORIGINAL COMMUNITY CONSULTATION			
3.1 ACHMP Consultation Framework			
3.1	As part of the ACHMP, consultation with identified Aboriginal stakeholders with regard to managing archaeological sites and cultural heritage values within the Baal Bone Colliery area will be ongoing, and will be based on the following:	Noted	
	<ul style="list-style-type: none"> • Identified Aboriginal stakeholder groups to be consulted include (but are not limited to): <ul style="list-style-type: none"> o Bathurst Local Aboriginal Council (BLALC); o Gundungurra Tribal Council Aboriginal Corporation (GTCAC); o Warrabinga Native Title Claimants Aboriginal Corporation (WNTCAC); and o North East Wiradjuri Company Limited (NEWCO). 	Consultation register in ACHMP confirms this.	Compliant
	<ul style="list-style-type: none"> • Representatives of the Aboriginal community will be invited to participate in any active management of archaeological sites and objects, or other materials of traditional significance as determined by the stakeholders, including consultation, salvage excavation and relocation (if required). 	No active management of archaeological matters has occurred during the audit period	Not Triggered
	<ul style="list-style-type: none"> • Aboriginal community groups will be consulted regarding maintaining cultural values within the Baal Bone Colliery landscape. Systematic review of this Aboriginal Cultural Heritage Management Plan will be performed with the local Aboriginal stakeholder groups. 	Noted, not occurred during the audit period	Not Triggered
3.5 Protocol for continued Aboriginal community consultation			
3.5	In the event that any areas are to be impacted that have not as yet been surveyed for the presence of Indigenous sites, Xstrata will contact appropriate community representatives (such as the BLALC, WNTCAC, NEWCO and GTCAC) to discuss any possible impacts from disturbances that may lead to the need for site meetings or presence of representatives from the Stakeholder groups during works. This is to be discussed with and determined by the Environment and Community Officer.	Noted, not occurred during the audit period	Not Triggered
3.5	Should members of the BLALC, WNTCAC, NEWCO or GTCAC wish to visit areas in the Baal Bone Colliery Pit Top and Open Cut area for cultural purposes, access may be arranged but will require seven working days notice, with the date and time to be confirmed with Baal Bone Colliery. Ad-lib access to these areas is not possible due to occupational health and safety regulations.	Noted, not occurred during the audit period	Not Triggered
7. MANAGEMENT AND MITIGATION MEASURES			
7.1 Rockshelter site BBC-RS1			
7.1	Rockshelter BBC-RS1 with PAD has been managed as a definitive site (despite lack of surface evidence) since the 2008 ACHMP and will continue to be so.	Noted and management is continued	Compliant
7.1	In 2012 an 'End of Panel Report: Longwall 31' was compiled and distributed to stakeholders, and published on the Baal Bone website.	Compiled and Distributed in February 2012 and is available on the BB website (as a part of Status Report No. 12)	Compliant

Reference	Requirement	Evidence	Audit Finding
Aboriginal Cultural Heritage Management Plan (July 2012)			
7.2 Management measures for the long term conservation of BBC-RS1 and other Indigenous sites over LW29-31			
7.2	To ensure the continued conservation of BBC-RS1 and other identified sites, the following measures should be adhered to: <ul style="list-style-type: none"> • Machinery capable of producing vibrations or with potential to dislodge overhead rock should not be used in the vicinity of BBC-RS1; 	Not in the audit period	Not Triggered
	<ul style="list-style-type: none"> • Fires or other processes capable of producing significant heat should not be used under the overhang of BBC-RS1 because of the potential for differential heating to dislodge slabs of rock; 	Not in the audit period	Not Triggered
	<ul style="list-style-type: none"> • The location of site BBC-RS1 with PAD and other previously identified sites should be recorded on a master mine plan in the Baal Bone Colliery Site Office. This plan will note that protected heritage items are present at various locations and that there should be no impacts in the vicinity of these locations; 	Map layer showing is available and can be overlaid onto any map of the site. Noted by the auditors.	Compliant
	<ul style="list-style-type: none"> • The mine will appoint someone (e.g. Environmental Officer or Mine Site Manager) to take responsibility for the continued protection of these sites from future impacts as they arise and to ensure that barrier fencing is erected and maintained should it be required; 	Environmental Officer is the responsible person. No fencing was required in the audit period.	Compliant
	<ul style="list-style-type: none"> • Where surface disturbing activities are likely to occur, inductions for all staff and contractors should include a section on Indigenous heritage. This induction will include reference to the legislative framework through which Indigenous heritage is protected and the penalties involved. Particular reference will be made to the process and identification of Aboriginal cultural heritage sites as well as providing a more general introduction to cultural heritage. XCN Ground Disturbance Permit (8.4.004) is to be completed for all surface disturbing activities; 	Not in the audit period	Not Triggered
	<ul style="list-style-type: none"> • Should there be any changes in relation to site BB-RS1 with PAD or if any additional cultural heritage material is identified in relation to this project, then the OEH and identified Stakeholders should be notified; and 	Not in the audit period	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Aboriginal Cultural Heritage Management Plan (July 2012)			
7.3 General Management Measures			
7.3	<ul style="list-style-type: none"> • XCN Ground Disturbance Permit (8.4.004) is to be completed for all surface disturbing activities . 	Not in the audit period	Not Triggered
	<ul style="list-style-type: none"> • The Longwalls 29 to 31 SMP area has been subjected to a full heritage survey. Therefore the recommendations contained in OzArk 2007 should be adhered to regarding any future developments in this region of the Study Area (see Section 4.8). 	Noted by the auditors	Not Triggered
	<ul style="list-style-type: none"> • The Continuing Operations heritage assessment in (OzArk 2009) noted that the zones delineated as Remnant Areas have not been subject to a full heritage survey, although portions of these areas have been surveyed, and contiguous landforms adjacent to the Remnant Areas have been assessed. These Remnant Areas have generally undergone low surface disturbance, mostly resulting from logging and prior subsidence and one previously recorded site plots above a Remnant Area. It is assessed that there is potential for this area to contain further Aboriginal sites. It is noted, however, that open sites containing low densities of artefacts are the predominant site type predicted for this area: a site type that is less-affected by subsidence than other site types such as shelters that are not expected to occur. It is recommended that should underground mining in the Remnant Areas proceed in the future, a full heritage survey should be conducted to ascertain the present condition of the site Ben Bullen Creek 1 (# 45-1-0240) and to comprehensively assess the Remnant Areas for potential heritage significance as per the OEH guidelines 'Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW'. 	Noted by the auditors	Not Triggered
	<ul style="list-style-type: none"> • Should any previously unidentified Aboriginal object or site be revealed during mining activities, then work in the area should cease and the local vicinity of the find should be cordoned off until confirmed by a qualified archaeologist. If object or site is Aboriginal in origin, an OEH representative and the Aboriginal community stakeholders should be contacted to discuss how best to proceed. 	Not in the audit period	Not Triggered
	<ul style="list-style-type: none"> • Should suspected ancestral human remains be encountered, the following process should be adhered to: <ul style="list-style-type: none"> o Do not further disturb or move the remains; o Immediately cease work in the vicinity and cordon area off; o Notify the NSW Police; o Notify the OEH's Environment Line on 131555 as soon as practicable and provide available details of the remains and their location; o Do not recommence work in the area unless authorised in writing by OEH. 	Not in the audit period	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Aboriginal Cultural Heritage Management Plan (July 2012)			
8. REPORTING, REVIEW AND IMPROVEMENT			
8.1 Reporting			
8.1	By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General. This review must:	5/3/2013 Annual Report was submitted to D-G.	Compliant
	(a) describe the works that were carried out in the previous calendar year, and the works that are proposed to be carried out over the current calendar year;	Section 2 and it's sub-sections describe the works/activities carried out during 2012. Section 6 and it's sub-sections outline the works proposed for 2013 (2012 AEMR)	Compliant
	(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against: • the relevant statutory requirements, limits or performance measures/criteria; • the monitoring results of previous years; and • the relevant predictions in the EA;	Statutory requirements and/or trigger levels not mentioned for all areas. Only Surface water, Groundwater levels, flora and fauna refer to results of previous years. Air Pollution, Surface Water, Groundwater and Pollution, Flora, Fauna, Operational Noise and Aboriginal and European Heritage compare the results to the predictions in the EA. AER must reference previous years results for all areas listed including air quality and noise monitoring.	Non-compliant
	(c) identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance;	Non-compliances over the previous year were identified and subsequent actions detailed (3.20.1 and 3.4.2)	Compliant
	(d) identify any trends in the monitoring data over the life of the project;	Some trending conducted, not all areas addressed and not clear whether any were relevant.	Compliant
	(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and	Comparisons to the EA are included	Compliant
	(f) describe what measure will be implemented over the current calendar year to improve the environmental performance of the project.	Section 6 and it's sub-sections outline the activities/works such as ongoing monitoring proposed for 2013 (2012 AEMR)	Compliant

Reference	Requirement	Evidence	Audit Finding
Aboriginal Cultural Heritage Management Plan (July 2012)			
8.2 Review and Improvement			
8.2	Review of this ACHMP will be conducted following any change in statutory requirements, operational or management procedures.	Review was conducted on June 2012. No changes were required in the 2013 review.	Compliant
8.2	Within 3 months of the submission of an:	Noted	
	(a) audit report under condition 8 of schedule 5;	Revisions of numerous plans occurred in 2012 as a result of 2011 IEA.	Compliant
	(b) incident report under condition 5 of schedule 5; and	Reports were reviewed by the auditors, no revision of this plan required	Compliant
	(c) annual review under condition 3 of schedule 5, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.	A revision of the plan has not been necessary as a result of the annual review as there have been many other revisions between annual reviews.	Compliant
	<i>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.</i>	Noted	
10. ACCOUNTABILITIES			
Baal Bone Colliery Operations Manager	<ul style="list-style-type: none"> • Provide direction for environmental and community management in accordance with Baal Bone Colliery Environmental Policy and Baal Bone Colliery Community Policy; • Provide direction for the review of Environmental and Community Policies; and • Provide adequate resources to implement the requirements of the ACHMP. 	Noted by the auditors	Compliant
Baal Bone Colliery Environment and Community Officer	<ul style="list-style-type: none"> • Update the ACHMP as relevant for current site activities; • Liaise with local indigenous community as required; • Co-ordinate with regulatory authorities on cultural heritage matters relating to approvals and consent conditions as required; • Co-ordinate heritage surveys as required; • Notify regulatory authorities and/or Aboriginal community stakeholders of any relevant issues relating to the consent conditions and prepare any associated reporting; • Co-ordinate appropriate induction of employees if surface disturbing activities are likely to occur in the vicinity of identified Aboriginal artefact sites; and • Co-ordinate the continued protection of identified LW29-31 sites from future impacts if and as they arise. 	Noted by the auditors	Compliant
All employees, contractors and trainees	<ul style="list-style-type: none"> • Must attend general induction and be aware of the cultural requirements of this plan and of their work activities. • Be aware and comply with the requirement to complete XCN Ground Disturbance Permit (8.4.004) for all surface disturbing activities 	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
2. OVERVIEW			
2.3 Risk Assessment and Management Program Overview			
2.3	An assessment of risks associated with biodiversity and land use impacts is undertaken as part of the site's annual Environmental Management System (EMS) review of the Environmental and Community Risks. These risks are summarised in the site's Aspects and Impacts Register, which is contained in the Baal Bone Colliery Environmental Management Systems Framework Document.	Anecdotally the review occurs but is not documented. It is not strictly an environmental task but is combined with heads of departments and is documented as part of the budget process. All EMS revisions have been submitted for DGs approval.	Compliant
2.3	Environmental aspects and impacts are also identified as part of annual Broad Brush Risk Assessment and project specific risk assessment workshops. These are undertaken for projects that require: <ul style="list-style-type: none"> • A development application, or modification to an existing development application, that results in a significant change to the area, mine plan or operations; or • A new Mining Operations Plan (MOP), or significant modification to an existing MOP, that results in a significant change to the area, mine plan or operation. 	Broad Brush Risk Assessments were reviewed by the auditors	Compliant
2.3	Risk assessment and investigation methodology will be applied to incidence where environmental and biodiversity monitoring highlights a potential negative impact or deterioration.	Noted	Not Triggered
2.3	Risk assessments are undertaken in accordance with XC RI STD 0001 Risk and Change Management and XCN SD GDL 0005 5.0 Risk and Change Management.	Noted	
3. Implementation			
3.1 Biodiversity Management			
3.1.1	Vegetation clearance approval is principally managed through the contractor work permit and project management process (XCN SD FRM 8.4.001 Work Authorisation Form, XCN SD FRM 8.4.004 Ground Disturbance Permit and XCN SD FRM 8.4.011 Excavation Works Permit forms) requiring all permit holders to liaise with the Baal Bone Colliery Environment Department prior to commencing any on-ground disturbance or vegetation clearing activity.	Reviewed GDPs, for demolition of SE Vent Fan and associated infrastructure.	Compliant
3.1.1	Disturbed areas are to be restored and revegetated as soon as practicable with a species from the approved Revegetation Species List (see Section 4 of Mining Operations Plan – Suspension of Mining Operations 2012 – 2015). Species to be approved by the Environment Officer and/or suitably qualified expert.	4.2.8 includes a list of revegetation species. Plan is approved by I&I and signed by the ECO	Compliant

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
3.1.2	If during Baal Bone's operations minor rehabilitation works are required the below actions will form the basis of the works if and when required:	Noted	
	• Soil ameliorants (e.g. gypsum, lime) are to be added to the topsoil at a minimum depth of 100mm for slopes less than 1:3 Vertical/Horizontal (V/Hz), 50mm of topsoil for slopes between 1:3 and 1:2 V/Hz, composting is to be included for areas where slopes are greater than 1:2 V/Hz.	The only rehabilitation works conducted have been aerial seeding where application of soil ameliorants is not practical or effective.	Not Triggered
	• Following replacement of topsoil and ameliorants, an endemic seed mixture will be used for Native Vegetation areas. The Improved Pasture seed mixture will be applied to areas identified as pastoral. Planting and seeding will aim to provide adequate structure and diversity to re-established areas in order to achieve appropriate biodiversity outcomes, including habitat for fauna species, as soon as practicable.	Invoice from 19/3/12 sighted for reseedling of North Open Cut area (seed referred to as "Native Seed" only with no speciation)	Compliant
	• Disturbed areas are to be restored and revegetated as soon as practicable with a species from the approved Revegetation Species List (see Section 4 of Mining Operations Plan – Suspension of Mining Operations 2012 – 2015). Species to be approved by the Environment Officer and/or suitably qualified expert.	4.2.8 includes a list of revegetation species. Plan is approved by I&I and signed by the ECO	Compliant
	• Where practicable replace previously cleared vegetation as a brush mat and for potential habitat and seed bank purposes.	Noted, Not practical to date but there are plans to rehab the shaft site using brush matting.	Not Triggered
	• Replace local rock/stone where appropriate to provide potential habitat for reptilian species.	Some rock and stone was noted through the rehab.	Compliant
	• Where required exclude stock and/or vehicular traffic from rehabilitation areas until vegetation has become self sustaining.	Stock excluded and no evidence of vehicular traffic through the rehab areas except on formed tracks.	Compliant
	• Monitor/control area for weed/pest infestation.	Weeds and feral animals were monitored as part of the 2012 and 2013 annual land management inspections. Recommendations made in 2012 report by Eco Logical for feral animal control	Compliant
• Aftercare and maintenance monitor and replant/reseed if and when required.	Invoice from 19/3/12 sighted for reseedling of North Open Cut area. Community Newsletter (May 2013) refers to this re-seeding occurring in early 2012.	Compliant	

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
3.1.3	To manage floral species diversity and habitat protection the following will be carried out where feasible and practical: <ul style="list-style-type: none"> • Excessive clearing and proliferation of tracks is to be avoided with access track, survey lines and fencing planned to minimise habitat fragmentation. • Revegetation works should endeavour to link areas of existing fauna habitat. • Prevent and control weeds that may displace native species. • Manage grazing in areas with a high ecological value as necessary for weed control. 	Noted, no evidence of exceptions to these requirements noted in site inspection.	Compliant
3.1.4	Specific fauna management activities include; <ul style="list-style-type: none"> • If during any clearing activity a previously unsighted threatened species is identified, cease activity and engage an ecologist to inspect the area and develop appropriate management programs. 	Noted, the ECO indicated that there had been no such occurrences.	Not Triggered
	<ul style="list-style-type: none"> • Where possible Baal Bone Colliery has committed to recovering some of the timber resources cleared and replacing it on the rehabilitated areas to provide refuge and habitat for fauna using the area. Habitat structures, such as logs, stumps and hollows, and vegetative material will be conserved and returned where the opportunity exists. 	Timber from powerline corridors has been replaced along the corridor to provide habitat.	Compliant
	<ul style="list-style-type: none"> • Revegetate the area with local provenance or known endemic habitat species. 	Invoice from 19/3/12 sighted for reseedling of North Open Cut area (seed referred to as "Native Seed" only with no speciation), endemic species used but not local provenance. The ECO has noted that this will be used in the future.	Compliant
	<ul style="list-style-type: none"> • Monitor for the presence of feral animals (particularly post-disturbance). 	Feral animals were monitored as part of the 2012 and 2013 annual land management inspections	Compliant
	<ul style="list-style-type: none"> • Restoration of riparian vegetation along rehabilitated sections of Ben Bullen Creek, and the management of water flow in the creeks. 	Observed in site inspection	Compliant
	<ul style="list-style-type: none"> • Notification to the Environmental and Community Officer of endangered animal sightings. 	Noted	Not Triggered
	<ul style="list-style-type: none"> • Snakes found in operational areas are captured and relocated by trained personal. 	Not in the audit period	Not Triggered
	<ul style="list-style-type: none"> • Fences around pastoral areas are inspected and maintained as part of the annual walk around inspection and kangaroo access points have been installed. 	Fences inspected during the 2012 and 2013 Land Management inspections	Compliant

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
3.2 Land Management			
3.2.1	Specific sustainable grazing and pasture management practices include: • Management of stocking rates so that pastures are adequately rested / rotated with a minimum aim of 70% ground cover is maintained on pasture areas (unless extenuating conditions prevail).	Current Land Access Agreement sighted which defines land degradation.	Compliant
	• Bare or denuded areas will be reseeded, top dressed and/or fertilised.	Invoice from 19/3/12 sighted for reseeding of North Open Cut area	Compliant
	• Desirable species (suitable to the area) will be promoted whilst suppressing weed species in conjunction with noxious weed eradication programs.	Invoice from 19/3/12 sighted for reseeding of North Open Cut area (seed referred to as "Native Seed" only with no speciation) Noted	Compliant
	• Perimeter and exclusion fencing / gates will be maintained in a serviceable condition. Condition of fences will be inspected as per environmental maintenance checklist.	Weekly work order inspection includes integrity assessment of fences and gates.	Compliant
	• Ground cover, pasture and fencing condition will be assessed as part of the annual Land Management Inspection and annual Rehabilitation Monitoring.	2012 and 2013 Rehab. Monitoring Reports (DnA Environmental) recommend improving ground cover as a medium-high priority. Both reports recommend soil testing of spoil in pastoral areas prior to constructing landforms and recommend addition of organic materials to improve soil fertility. The 2012 Land Management Inspection states fencing is in good condition.	Compliant
	• Necessary engineering and revegetation works will be undertaken to remediate subsidence. Refer to Subsidence Management Plan (Land Management Plan) for detailed management actions.	Observed selected works in site inspection	Compliant
• Agricultural activities will be managed in a manner that minimises effects on catchment water quality (e.g. avoid excessive application of fertiliser or chemical sprays, particularly in riparian areas susceptible to runoff into watercourses).	Current Land Access Agreement sighted which defines chemical use.	Compliant	
3.2.2	A full Land Management Inspection of the Baal Bone site by appropriately qualified personnel will be carried out annually to ensure that any land management issues such as weeds and feral animal control are raised and addressed.	2012 Inspection was conducted by Eco Logical Australia Pty Ltd. 2013 Land Management inspection was conducted by DnA Environmental in conjunction with the Rehabilitation Monitoring inspection.	Compliant
3.2.2	An ongoing program to control weed infestations (e.g. Blackberry, St Johns Wort) will be implemented during care and maintenance. Inspections and maintenance works (e.g. chemical sprays and/or physical removal techniques), will be carried out as required by the Noxious Weeds Act 1993 or as directed by the Weeds Council. This will be undertaken in conjunction with adjacent landholders wherever possible.	A comprehensive weed spraying program targeting Blackberry, Bidy Bush (Cassinia arcuata) and isolated populations of Serrated Tussock (Nassella trichotoma) was undertaken in January and March 2012. Further blackberry spraying was undertaken in December 2012 and January 2013.	Compliant

Reference	Requirement	Evidence	Audit Finding																
Biodiversity and Land Management Plan (May 2013)																			
	Table 1: Weed management actions and timeframes	Noted																	
	<table border="1"> <thead> <tr> <th>Weed</th> <th>Non-Chemical Treatment</th> <th>Chemical Treatment</th> <th>Timing</th> </tr> </thead> <tbody> <tr> <td colspan="4">Noxious Weeds</td> </tr> <tr> <td>Bathurst Burr (<i>Xanthium spinosum</i>) and Noogoora Burr (<i>Xanthium pungens</i>)</td> <td> <ul style="list-style-type: none"> Small infestations can be hoed out or removed by hand. If mature seed is present, it should be collected and burnt. </td> <td> <ul style="list-style-type: none"> Treatment of large infestations should be with a herbicide registered for these species (including MCPA for seedlings or Fluroxypyr for actively growing plants) and should be applied though spot spraying or in a manner specified on the label, before the seed matures. </td> <td>Treatment should occur before flowering during spring.</td> </tr> <tr> <td>Blackberry (<i>Rubus fruticosus</i>)</td> <td> <ul style="list-style-type: none"> May be physically removed by mechanical means so as to ensure that crowns and most roots are removed. Regrowth from crowns, root fragments, and seed will occur so follow-up treatment by either further physical means, herbicide application be undertaken. Slashing may be used to help open up dense infestations for follow-up control by other methods. </td> <td> <ul style="list-style-type: none"> Treatment for actively growing plants should be with a registered herbicide for this species (including Triclopyr + picloram or Glyphosate) and should be applied through high volume spot spraying. Spray should be applied first to the inside of bushes so as to ensure good coverage of stems and leaves. Outside leaves, runners and tips are then to be sprayed. Light infestations should be cut close to ground level and the cut stems immediately painted with herbicide. This method should be used only on small plants and retreatment should be undertaken as necessary to prevent regrowth. </td> <td>Treatment should occur from late spring to autumn.</td> </tr> </tbody> </table>	Weed	Non-Chemical Treatment	Chemical Treatment	Timing	Noxious Weeds				Bathurst Burr (<i>Xanthium spinosum</i>) and Noogoora Burr (<i>Xanthium pungens</i>)	<ul style="list-style-type: none"> Small infestations can be hoed out or removed by hand. If mature seed is present, it should be collected and burnt. 	<ul style="list-style-type: none"> Treatment of large infestations should be with a herbicide registered for these species (including MCPA for seedlings or Fluroxypyr for actively growing plants) and should be applied though spot spraying or in a manner specified on the label, before the seed matures. 	Treatment should occur before flowering during spring.	Blackberry (<i>Rubus fruticosus</i>)	<ul style="list-style-type: none"> May be physically removed by mechanical means so as to ensure that crowns and most roots are removed. Regrowth from crowns, root fragments, and seed will occur so follow-up treatment by either further physical means, herbicide application be undertaken. Slashing may be used to help open up dense infestations for follow-up control by other methods. 	<ul style="list-style-type: none"> Treatment for actively growing plants should be with a registered herbicide for this species (including Triclopyr + picloram or Glyphosate) and should be applied through high volume spot spraying. Spray should be applied first to the inside of bushes so as to ensure good coverage of stems and leaves. Outside leaves, runners and tips are then to be sprayed. Light infestations should be cut close to ground level and the cut stems immediately painted with herbicide. This method should be used only on small plants and retreatment should be undertaken as necessary to prevent regrowth. 	Treatment should occur from late spring to autumn.	Noted, no Bathurst burr noted in site inspection	Compliant
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Reference	Requirement				Evidence	Audit Finding	
Biodiversity and Land Management Plan (May 2013)							
3.2.2	Lantana (<i>Lantana camara</i>)	<ul style="list-style-type: none"> May be physically removed by mechanical means so as to ensure that crowns and most roots are removed. Regrowth from crowns, root fragments, and seed will occur so follow-up treatment by either further physical means, herbicide application be undertaken. Slashing may be used to help open up dense infestations for follow-up control by other methods. 	<ul style="list-style-type: none"> Treatment for actively growing plants should be with a registered herbicide for this species (including Triclopyr + picloram or Glyphosate) and should be applied through high volume spot spraying. Spray should be applied first to the inside of bushes so as to ensure good coverage of stems and leaves. Outside leaves, runners and tips are then to be sprayed. Light infestations should be cut close to ground level and the cut stems immediately painted with herbicide. This method should be used only on small plants and retreatment should be undertaken as necessary to prevent regrowth. 	Treatment should occur from late spring to autumn.	Noted, very little lantana noted in site inspection	Compliant	
	Serrated Tussock (<i>Nassella trichotoma</i>)	<ul style="list-style-type: none"> Removal of the entire serrated tussock plant from the ground using a hoe or mattock. 	<ul style="list-style-type: none"> Treatment of large infestations should be with a herbicide registered for this species (including Flupropanate or Glyphosate) and should be applied though spot spraying or in a manner specified on the label, before the seed matures. 	All year round, however preferable before flowering (Aug - Nov)	A comprehensive weed spraying program targeting Blackberry, Biddy Bush (<i>Cassinia arcuata</i>) and isolated populations of Serrated Tussock (<i>Nassella trichotoma</i>) was undertaken in January and March 2012. Further blackberry spraying was undertaken in December 2012 and January 2013.	Compliant	
	Other Weeds						
	Paterson's Curse (<i>Echium</i> , spp)	<ul style="list-style-type: none"> Small infestations can be hoed out or removed by hand. If mature seed is present, it should be collected and burnt. 	<ul style="list-style-type: none"> Treatment of large infestations should be with a herbicide registered for this species (including 2,4-D or Glyphosate) and should be applied though spot spraying or in a manner specified on the label, before the seed matures. 	Treatment should occur before flowering during spring.	Noted, there was an amount of Patersons curse noted during the site inspection scattered through the rehab.	Compliant	
	Spear Thistle (<i>Cirsium vulgare</i>)	<ul style="list-style-type: none"> Small infestations can be hoed out or removed by hand. If mature seed is present, it should be collected and burnt. 	<ul style="list-style-type: none"> Treatment of large infestations should be with a herbicide registered for this species (including 2,4-D Amine or Triclopyr + picloram + Aminopyralid) and should be applied though spot spraying or in a manner specified on the label, before the seed matures. 	Treatment should occur in spring.	Noted, little noted in rehab, more in surrounding paddocks (not owned by BBC) than in rehab ATM.	Compliant	

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
3.2.2	A trapping or eradication program for feral and vertebrate pests (eg. rabbits, goats, feral cats/wild dogs, and pest fish species) will be implemented as required by the Rural Lands Protection Act 1998 or as directed by the Livestock Health and Pest Authority in conjunction with adjacent landholders where possible.	No direction from the LHPA.	Not triggered
3.2.3	Grazing land will be managed according to the applicable SCS Rural Land Capability classification and the presence/extent of soil erosion will be included within the scope of the annual Land Management Inspection.	Included in inspection	Compliant
3.2.3	With the exception of mined area rehabilitation activities, no agricultural cropping (cultivation) programs will be undertaken on company owned or leased land at Baal Bone.	None observed	Compliant
3.2.4	<p>Bushfire management at Baal Bone includes:</p> <ul style="list-style-type: none"> • No open fires are to be lit on company owned or leased lands and any fire event within the mine area will be managed in accordance with BBN SD PLN 0001 Emergency Management System. • A Statutory Fire Threat period applies from 1st October to 31st March under the Bushfires Act, 1949. • Hot works with a potential to ignite a bushfire are managed through XCN SD FRM 8.4.002 Hot Works Permit. • All activities within the Ben Bullen State Forest will be undertaken in accordance with Forests NSW's Fire Danger Colour Code system. • Site access tracks will be maintained in a trafficable condition. • Water supply points for fire fighting purposes are available at the dirty water dam, process water dam, overshot dam, Box Cut sump and Longwall 19 dewatering bore settling dam (north bore) • Baal Bone's helipad and first aid facilities are available for use during bushfire emergencies • Asset Protection Zones (APZ) around power lines, pump stations and the vent shaft will be maintained in accordance with the NSW Rural Fire Service Guidelines "Planning for Bushfire Protection – Guide for Councils, Planners, Fire Authorities, Developers and Home Owners" (2006). APZ's sites will be reviewed as part of the annual Land Management Inspection. 	Noted by the auditors	Compliant
3.2.5	<p>Monitoring for dry land salinity will be incorporated into the annual Rehabilitation Monitoring program and specifically as part of the Landscape Function Analysis. Monitoring will include;</p> <ul style="list-style-type: none"> • Identification of bare, scald areas, salt crusting • Investigation of areas where water ponding occurs • Identification of areas of stunted vegetation growth, and salinity indicator species along riparian zones • Review of water quality and groundwater levels paying particular attention to changes in salinity. Levels of electro-conductivity are monitored on a monthly basis at all site water bodies as well as Ben Bullen and Jews Creeks. 	<p>2012 Land Management Inspection Report (Eco Logical Australia Pty Ltd) states no signs of dryland salinity. 2013 Rehabilitation Monitoring Report (DnA Environmental) does not mention any monitoring for dryland salinity.</p> <p>None noted in site inspection.</p>	Compliant

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
3.2.5	At the identification of any signs of salinity soil sampling will be taken and analysed for conductivity (ECe - dS/m) and Exchangeable sodium percentage (ESP). If ECe is above 4 dS/m or the ESP is above 5% then further investigations will be undertaken and a remediation plan developed.	No signs of dryland salinity have been identified.	Not Triggered
3.2.5	Treatment methods may include such methods as fencing off to restrict stock for maximum revegetation growth, revegetation with salt-tolerant plants, surface tillage and ripping to assist plant growth, improving soil conditions by mulching, establishing water drainage control works to direct overland water away from site and/or groundwater pumping to lower the water table.	No signs of dryland salinity have been identified.	Not Triggered
3.2.6	Baal Bone will consider a sustainable means of collecting native seed to ensure local providence if further mining activities commence.	Noted	Not Triggered
3.2.6	For previous rehabilitation areas seed has been sourced / selected based on species which occur in the surrounding woodland vegetation communities and commercial availability of seed from Upper Blue Mountain sources.	Noted	
3.2.7	A detailed rehabilitation plan for Ben Bullen Creek was developed by the Revegetation Contractors Pty Ltd (2007). The creek was separated into three distinct sections upstream, central, and downstream and contains various pool and riffle sequences along with meanders to incorporate the creek into the surrounding landscape. The restoration works for the upstream and downstream areas have been implemented. The remaining central section will be implemented in the instance of full closure of the Baal Bone site which is after cessation of the suspension of mining operations period.	Noted.	Not Triggered
	Native vegetation areas (undisturbed by open cut mining) under Baal Bone Colliery management: o Areas are fenced off and access is controlled. Monitoring includes biodiversity species assessment, flora health, weeds and feral animals. o Key management issues are weeds and feral animal control.	Observed during the site inspection	Compliant
	Vegetation corridors (existing and planned): o This includes a small established vegetation corridor on the northern boundary of the mine along a creek line that merges with Ben Bullen Creek. o Monitoring includes erosion, topsoil covering, species assessment, flora health, weeds and feral animals. o Key management issues are erosion control, biodiversity of planted vegetation, weeds and feral animal control.	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
3.2.8	<p>Mining disturbed areas to be rehabilitated to native woodland with pasture:</p> <ul style="list-style-type: none"> o Post mining land use for the areas disturbed by open cut mining activities and the linking rail line and rail loop are native woodland with some pasture areas. The majority of these areas have been rehabilitated. Remaining areas include the northern and southern void and the rail line. o Monitoring includes erosion, topsoil covering, biodiversity species assessment, flora heath, weeds and feral animals. o Key management issues are erosion control, biodiversity of planted vegetation, weeds and feral animal control. 	Observed on site and noted	Compliant
	<p>State Forest areas potentially affected by undermining (subsidence):</p> <ul style="list-style-type: none"> o The State Forest areas are managed by the Forest NSW. Disturbance areas include access roadways, ventilating shafts, and power lines. Key land management and biodiversity activities are related to water quality monitoring and subsidence management that is governed by the Subsidence Management Plan that details monitoring and Trigger Action Response Plan (TARP) process for any noted subsidence. 	Noted, TARP not triggered in the audit period and no evidence of activities outside the requirements of the other management processes were noted during the site inspection.	Compliant
	<p>Pasture areas outside of the mining disturbed area and under Baal Bone management:</p> <ul style="list-style-type: none"> o These areas are fenced off and grazed with grazing intensity managed according to Section 3.6.1 'Sustainable grazing and pasture'. o Weed inspection and management are applicable to these areas. 	Land Access Agreements were sighted by the auditors.	Compliant
3.2.8	<p>Mining disturbed areas where the post mining land use is grassland/grazing:</p> <ul style="list-style-type: none"> o Comprise mainly of the central infrastructure area and the pit top area. o Rehabilitation of these areas will include shaping, topsoil placement, application of soil amelioration, ripping, seeding with native local pasture species and controlled grazing to get the areas to sustainable grazing. Rehabilitation will be undertaken as per the Rehabilitation Management Plan within the Mining Operations Plan. o The rehabilitated areas are included in annual monitoring. Weed inspection and management are a key concern in these areas. 	Not in the audit period	Not Triggered
3.2.8	<p>Ben Bullen Creek restoration:</p> <ul style="list-style-type: none"> o A detailed rehabilitation plan for Ben Bullen Creek was developed by the Revegetation Contractors Pty Ltd (2007). The creek was separated into three distinct sections upstream, central, and downstream. The restoration works for the upstream and downstream areas have been implemented. The remaining central section will be implemented after cessation of the suspension of mining operations period and any mining development that may go ahead subject to approvals from internal and regulatory agencies. (Refer to Natural Channel Design Ben Bullen Creek Diversion, 2007). o Key management issues for the creek include: water quality monitoring, banks stabilization including sediment and erosion control, weed management. 	Not in the audit period	Not Triggered

Reference	Requirement	Evidence	Audit Finding								
Biodiversity and Land Management Plan (May 2013)											
	Coxs River swamp; o The area is included in the ecological monitoring under the Subsidence Management Plan for Longwalls 29-31. Key issue includes groundwater level monitoring in the vicinity of the swamp for anomalies fluctuations that might impact on the swamp/wetland area. The environmental monitoring plan and the surface and groundwater response strategy contain trigger action response plans (TARP) that are implemented if anomalous ground or surface water levels or quality are picked up during the monitoring.	Noted by the auditors, a review of the data for GW at the Cox's River Swamp indicated that there were no triggers for the TARP apart from one set of data for one well closest to the subsidence area that and not impacted wells closer to the swamp.									
3.2.9	Aboriginal groups are able to visit areas on Baal Bone owned land for cultural purposes given that they provide seven working days notice (with the date and time to be confirmed with Baal Bone Colliery), complete relevant on site inductions and wear appropriate personal protective equipment. Ad-lib access to these areas is not possible due to occupational health and safety regulations.	Not in the audit period	Not triggered								
3.3 Implementation Programme											
	<table border="1"> <thead> <tr> <th>Closure Domains</th> <th>Activities Short-Term (1-2 years)</th> <th>Activities Medium-Term (2-5 years)</th> <th>Activities Long-Term (+5 years)</th> </tr> </thead> <tbody> <tr> <td>Northern Void</td> <td>Area placed on care and maintenance. Dust suppression applied where required.</td> <td>To be determined while on care and maintenance.</td> <td>Implement the rehabilitation plan for the northern void, then follow up with monitoring, aftercare and maintenance.</td> </tr> </tbody> </table>	Closure Domains	Activities Short-Term (1-2 years)	Activities Medium-Term (2-5 years)	Activities Long-Term (+5 years)	Northern Void	Area placed on care and maintenance. Dust suppression applied where required.	To be determined while on care and maintenance.	Implement the rehabilitation plan for the northern void, then follow up with monitoring, aftercare and maintenance.	Observed on site	Compliant
Closure Domains	Activities Short-Term (1-2 years)	Activities Medium-Term (2-5 years)	Activities Long-Term (+5 years)								
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	<table border="1"> <tbody> <tr> <td>Northern Rehabilitation Area</td> <td>Aftercare and monitoring (maintain all monitoring, remediation and weed and pest control where required).</td> <td>Aftercare and monitoring (maintain all monitoring, remediation and weed and pest control where required).</td> <td>Application for relinquishment.</td> </tr> </tbody> </table>	Northern Rehabilitation Area	Aftercare and monitoring (maintain all monitoring, remediation and weed and pest control where required).	Aftercare and monitoring (maintain all monitoring, remediation and weed and pest control where required).	Application for relinquishment.	Observed on site	Compliant				
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	<table border="1"> <tbody> <tr> <td>Infrastructure</td> <td>Dust suppression where required, waste and contamination management.</td> <td>To be determined while on care and maintenance.</td> <td>Implement the rehabilitation plan for infrastructure area, and then follow up with monitoring, aftercare and maintenance.</td> </tr> </tbody> </table>	Infrastructure	Dust suppression where required, waste and contamination management.	To be determined while on care and maintenance.	Implement the rehabilitation plan for infrastructure area, and then follow up with monitoring, aftercare and maintenance.	Observed on site	Compliant				
Infrastructure	Dust suppression where required, waste and contamination management.	To be determined while on care and maintenance.	Implement the rehabilitation plan for infrastructure area, and then follow up with monitoring, aftercare and maintenance.								

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
	<p>Central Pit Top Area</p> <p>Dust suppression where required, waste and contamination management.</p>	<p>To be determined while on care and maintenance.</p> <p>Implement the rehabilitation plan for central pit tip area, and then follow up with monitoring, aftercare and maintenance.</p>	<p>Observed on site</p> <p>Compliant</p>
	<p>Southern Rehabilitation Area</p> <p>Aftercare and monitoring (maintain all monitoring, remediation and weed and pest control where required).</p>	<p>Aftercare and monitoring (maintain all monitoring, remediation and weed and pest control where required).</p> <p>Application for relinquishment.</p>	<p>Observed on site</p> <p>Compliant</p>
	<p>Southern Reject Emplacement Area</p> <p>Dust suppression applied where required.</p> <p>REA5 to be capped when free moisture content has reached the required level.</p>	<p>To be determined while on care and maintenance.</p> <p>Placed on aftercare, monitoring and maintenance.</p> <p>Application for relinquishment.</p>	<p>Observed on site</p> <p>Compliant</p>
	<p>Potential Subsidence Area</p> <p>Managed according to subsidence management plan. Remediation undertaken where required.</p>	<p>Aftercare, monitoring and maintenance of remediation works.</p> <p>Application for relinquishment.</p>	<p>Observed on site</p> <p>Compliant</p>
	<p>Remnant Vegetation</p> <p>Aftercare, monitoring and maintenance, including weed and pest management.</p>	<p>Aftercare, monitoring and maintenance, including weed and pest management. Possible linkage to other remnant areas with vegetation corridors in the northern rehabilitation section.</p> <p>Part of mine relinquishment application.</p>	<p>Observed on site</p> <p>Compliant</p>

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
	<p>Managed grazing areas</p> <p>Grazing plan implemented, with ongoing monitoring, weed and pest control.</p>	<p>Grazing plan reviewed and implemented, with ongoing monitoring, weed and pest control.</p> <p>Asset sold.</p>	<p>Observed on site</p> <p>Compliant</p>
	<p>Ben Bullen Creek</p> <p>Maintain planted riparian vegetation along the restored sections of the creek.</p>	<p>Restrict access to the area. Follow up monitoring and weed and pest control as required.</p> <p>Complete restoration of the central section and associated riparian vegetation.</p>	<p>Observed on site</p> <p>Compliant</p>
4. MONITORING PROGRAMS			
4	<p>Three types of biodiversity and rehabilitation monitoring/inspections are undertaken at Baal Bone:</p> <ul style="list-style-type: none"> • Monthly inspections of the Northern and Southern rehabilitation areas by site personnel • Annual Land Management Inspection • Annual Ecological Rehabilitation Monitoring (including Landscape Function Analysis and soil sampling). 	<p>2012 and 2013 annual Rehabilitation Monitoring and 2013 Land Management Inspection undertaken by DnA Environmental. 2012 Land Management Inspection undertaken by Eco Logical Pty Ltd. Monthly rehabilitation occurs as per the monthly work order inspections</p>	<p>Compliant</p>
4	<p>Monthly groundwater and surface water monitoring and analysis programs also form part of the biodiversity monitoring and management process.</p>	<p>Monitoring monthly as per the surface water and ground water monitoring spreadsheets</p>	<p>Compliant</p>
4.1 Monthly Rehabilitation Inspections			
4.1	<p>Inspections by site personnel of the Northern and Southern rehabilitation areas will be carried out on a monthly basis.</p>	<p>Monthly inspection from November 2013 sighted by audit team.</p>	<p>Compliant</p>
4.1	<p>Informal periodic land management inspections will be conducted, as required, throughout the remainder of the year in response to significant events (e.g. extreme weather events).</p>	<p>Lake Tegan and Ben Bullen Creek inspected following rainfall events</p>	<p>Compliant</p>
4.2 Annual Land Management Inspection			
	<p>Baal Bone Colliery will undertake an annual Land Management Inspection over previously rehabilitated sites as per XCN SD ANN 0039 Completion Criteria Development and Rehabilitation Monitoring.</p>	<p>2013 Land Management Inspection undertaken by DnA Environmental and 2012 Land Management Inspection undertaken by Eco Logical Pty Ltd.</p>	<p>Compliant</p>
4.2	<p>The inspection will be completed by a suitably qualified external environmental officer and will ensure that any land management issues such as weeds and erosion are raised and addressed.</p>	<p>2013 Land Management Inspection report prepared by Dr Donna Johnson and 2012 inspection report prepared by Daniel Magdi and approved by Dr Paul Frazier.</p>	<p>Compliant</p>

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
	Rehabilitation photos will be taken from four permanent monitoring locations during the inspection (Figure 5).	Four permanent monitoring locations referred to in 2012 Inspection Report but not specifically in 2013 Inspection Report, however the photos are in the vicinity of the monitoring locations.	Compliant
4.2	The Land Management Inspection will be conducted in Q3 of each year (from 2013 onwards) for the following year to coincide with budgeting cycles.	2013 Inspection conducted in early July.	Compliant
	An eradication program will be developed by Q4 and implemented as required throughout the following year.	The main eradication program after each inspection is for weeds. The site have been using their own internal personnel to carry out weed eradication in the past few years and have a blackberry spraying program planned with internal (chemcert qualified) personnel for blackberries in the new year in particular along the creek line and around the dams.	Compliant
4.2	The status of the following land management issues will be reviewed during the annual inspection: <ul style="list-style-type: none"> • Weed populations and infestations • Vertebrate pests • Vegetation levels within asset protection zones • Soil erosion / land degradation • Pasture and native vegetation condition • Condition of exclusion fencing, gates and signposting • Subsidence management and any subsidence remediation works. 	2012 Inspection report reviews status of these issues. 2013 Inspection report does not mention vegetation levels within asset protection zones, condition of exclusion fencing, gates and signposting and subsidence management issues.	Non-compliant
4.3 Ecological Rehabilitation Monitoring			
4.3	Annually the monitoring methodology encompasses a combination of Landscape Function Analyses (LFA), Vegetation structure and composition analyses and permanent photo-points.	2012 and 2013 annual Rehabilitation Monitoring (DnA Environmental) use LFA, vegetation structure and composition analyses and permanent photopoints.	Compliant
4.3	Every second year a more extensive program will be carried out to gauge rehabilitation progress, using a combination of LFA, comprehensive soil analyses and an assessment of ecosystem characteristics.	Extensive program was carried out in 2012 (DnA Environmental). Next comprehensive program due in 2014.	Compliant
	The ecological assessments provide quantitative data that measure changes in:	Performed on a more detailed level every 2 years. The next detailed assessment will be completed in 2014	

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
4.3	• Floristic diversity including species area curves and growth forms;	Species area curves are referenced but not detailed S8.1.9 of the 2012 Rehabilitation Report covers growth forms	Compliant
	• Ground cover diversity and abundance;	Section 8 of the 2012 Rehabilitation Monitoring Report reports on ground cover diversity and abundance	Compliant
	• Vegetation structure and habitat characteristics (including ground cover, cryptogams, logs, rocks, litter, projected foliage cover at various height increments);	Section 8 of the 2012 Rehabilitation Monitoring Report outlines vegetation structure and habitat characteristics.	Compliant
	• Understorey density and growth (including established shrubs, direct seeding and tubestock plantings and tree regeneration);	Section 8 of the 2012 Rehabilitation Monitoring Report outlines understorey density and growth	Compliant
	• Overstorey characteristics including tree density, health and survival; and	Section 8 of the 2012 Rehabilitation Monitoring Report outlines overstorey characteristics	Compliant
	• Other habitat attributes such as the presence of hollows, mistletoe and the production of buds, flowers and fruit.	Section 8 of the 2012 Rehabilitation Monitoring Report outlines habitat attributes	Compliant
4.3.1	Data obtained from these six references sites quantify the range of ecological performance indicators and a selection of completion indicators and these are amended annually. The results from monitoring at six woodland rehabilitation sites, and two exotic pasture sites are then compared to the reference sites.	2012 and 2013 annual Rehabilitation Monitoring (DnA Environmental) use follow this methodology.	Compliant
4.4 Fauna Monitoring			
4.4	As most of the rehabilitated land is still at an early successional stage, monitoring mainly will comprise measuring the extent of complexity of the vegetation structure and observations of vertebrate faunal use. The results from the monitoring process will be compared with data obtained from natural areas using similar techniques.	The last routine flora and fauna monitoring was completed in August and September 2011 respectively. Not in the audit period	Not triggered
4.4	Fauna monitoring as part of the annual walk around inspection and the monthly site inspection by the Baal Bone Environmental Department include the following visual assessments and recordings; <ul style="list-style-type: none"> • Identification of habitat areas; • Identification and reporting by mine personal of any endangered species; • Feral animal sightings; • Fauna browsing and grazing damage to rehabilitation area; • Signs of overgrazing in the pastoral paddocks; • Any wildlife death in mine operational areas or on roads; • Fence maintenance and kangaroo crossing points; and • Colonisation of rehabilitated areas by ants and burrowing animals. 	Feral animals, grazing and fence maintenance is addressed in the annual Land Management Inspection. The last routine flora and fauna monitoring was completed in August and September 2011 respectively. Monthly site inspections include photographs taken of any fauna that are filed with weekly inspection photos.	Compliant

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
5. ENVIRONMENTAL PERFORMANCE			
5.1 Training and Awareness			
5.1	Baal Bone recognises that training and awareness is an integral part of the Environmental Management System and will therefore form the primary means of informing relevant site personnel about the contents and implementation of the Biodiversity and Land Management Plan.	Environmental Induction incorporates the awareness and training of the Plan	Compliant
	Baal Bone's environmental training and awareness program comprises induction training for new starters and contractors, refresher training and ongoing toolbox training for all relevant personnel as required.	Training Needs Analysis was reviewed by the auditors	Compliant
5.2 Incident and Complaint Management			
5.2	Incident and community complaints management includes receipt of an incident/complaint, an investigation, implementation of appropriate remedial action, and feedback to the complainant as required. Additionally, communication to site management or personnel and notification to relevant external bodies, such as the EPA and DoPI, are also undertaken where necessary.	No complaints in the audit period	Not triggered
	Baal Bone Colliery operates an incident reporting and inquiry telephone line (02 6350 6900) advertised to the public via the Baal Bone website, the EPA and public notices such as newsletters. Community complaints are forwarded to the Environment and Community Officer and managed in accordance with BBN SD PRO 0012 Community Complaints Management Procedure.	No complaints in the audit period	Not triggered
	As soon as practicable, the Environment and Community Officer will complete an Environmental Incident Report Form & Community Complaint Report Form (BBN SD FRM 0055) to record details. All complaints received are entered into XstraSafe where following are recorded: <ul style="list-style-type: none"> • The date and time of the complaint; • The method by which the complaint was received; • The personal details of the complainant which were provided by the complainant; • The nature of the complaint; • The action(s) taken to address the complaint including follow up contact; and • If no action is taken the reason why no action was taken. 	No complaints in the audit period	Not triggered
	Details and number of complaints are reported annually in the Annual Review and in the Annual Return for EPL 765 in accordance with Baal Bone's reporting requirements. As per Project Approval 09_0178 a complaints register (updated quarterly) is published on the Baal Bone webpage.	These details are in the AER.	Compliant

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
6. REPORTING, REVIEW AND IMPROVEMENT			
6.1 Reporting			
6.1	By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General. This review must:	Noted	
	(a) describe the works that were carried out in the previous calendar year, and the works that are proposed to be carried out over the current calendar year;	The AEMRs reviewed for the audit period provide these details	Compliant
	(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against: • the relevant statutory requirements, limits or performance measures/criteria; • the monitoring results of previous years; and • the relevant predictions in the EA;	Some environmental monitoring factors were not compared against previous years results.	Non-compliant
	(c) identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance;	The AEMRs reviewed for the audit period provide these details	Compliant
	(d) identify any trends in the monitoring data over the life of the project;	Some trending conducted, not all areas addressed and not clear whether any were relevant.	Compliant
	(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and (f) describe what measure will be implemented over the current calendar year to improve the environmental performance of the project.	The AEMRs reviewed for the audit period provide these details The AEMRs reviewed for the audit period provide these details	Compliant Compliant
6.1	The Annual Review will describe: • Works done on site and occupied lands during the previous calendar year • Overviews of biodiversity related monitoring results received during the year • Overview of any complaints or incidents including those related to biodiversity management on site.	The last routine flora and fauna monitoring was completed in August and September 2011 respectively	Compliant
	From 31 March 2011, the Proponent shall:	Noted	
	(a) make the following information publicly available on its website to the satisfaction of the Director- General: • a copy of all approved strategies, plans and programs;	All approved strategies, plan and programs are available on the website. Water MP and related plans are interim and as such are not required to be on the website until approved.	Compliant

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
6.1	(b) keep this information up-to-date, to the satisfaction of the Director-General.	There is no formal process for compliance with this requirement, it is therefore assumed that the checks conducted as part of this audit fulfil the DG's requirements and indirectly provide tacit approval of the currency of the information provided on the website.	Compliant
6.2 Review and Improvement			
6.2	This Management Plan will be reviewed on an annual basis in conjunction with the Environmental Management System and should be amended if deemed necessary as a result of this review.	Review has been conducted June 2012 and May 2013 as a part of the annual review process	Compliant
6.2	Within 3 months of the submission of an:	Noted	
	(a) audit report under condition 8 of schedule 5;	Revisions of numerous plans occurred in 2012 as a result of 2011 IEA.	Compliant
	(b) incident report under condition 5 of schedule 5; and	Reports were reviewed by the auditors	Compliant
	(c) annual review under condition 3 of schedule 5, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.	2013 review constituted a revision of the Biodiversity and Land Management Plan as per the letter submitted to notify the D-G on 16/05/2013	Compliant
	<i>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.</i>	Noted	
7. ACCOUNTABILITIES			
Baal Bone Colliery Operations Manager	<ul style="list-style-type: none"> • Provide adequate resources for the implementation of this Plan. • Ensure the following are undertaken for new operations or major changes to existing operations: <ul style="list-style-type: none"> • Biodiversity and land management baseline studies. • Risk assessment and identification of impacts on biodiversity. • Development and implementation of management strategies to address impacts. • Ensure overburden emplacement, tailings management and mine rehabilitation is undertaken in accordance with the site rehabilitation and closure plans. 	Noted by the auditors	Compliant
Project Manager (exploration or feasibility)	<ul style="list-style-type: none"> • Provide adequate resources for the implementation of this Plan. • Undertake the following at the exploration and feasibility stage of the project: <ul style="list-style-type: none"> • Biodiversity and land management baseline studies. • Risk assessments and identification of impacts on biodiversity. • Development and implementation of management strategies to address impacts. 	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Biodiversity and Land Management Plan (May 2013)			
Baal Bone Colliery Environment and Community Officer	<ul style="list-style-type: none"> • Co-ordinate biodiversity and land management baseline studies, participate in risk assessments, contribute to development of management strategies in consultation with affected parties and coordinate their implementation as part of the site EMS. • Periodically review the implementation of management strategies and co-ordinate periodic biodiversity monitoring. • Identify and facilitate the implementation of remedial actions. • Co-ordinate environmental training and ensure it includes training in biodiversity and land management as appropriate to the positions involved. • Co-ordinate the development of a site closure plan which considers biodiversity and includes completion criteria. • Periodically review progress with meeting objectives and completion criteria, including rehabilitation monitoring. • Participate in benchmarking and information exchange regarding biodiversity and land management practices. • Undertake annual review of BLMP in accordance with PA 09_0178. 	Noted by the auditors	Compliant
All employees, contractors and trainees	<ul style="list-style-type: none"> • Must attend general induction and be aware of the biodiversity requirements relating to their work activities, and the requirement to complete the vegetation clearance permit and obtain approval prior to disturbing any natural vegetation. • Any unusual fauna or flora sighting, injured wildlife, vegetation dieback or weed infestations are to be reported to the Environmental Officer. 	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding						
Noise Management Plan (July 2012)									
3. STATUTORY REQUIREMENTS									
3.1 Noise Assessment Criteria ROM Surface Infrastructure (Project Approval 09_0178)									
3.1	By 31 December 2011, the Proponent shall ensure that the noise generated by the project does not exceed the long term noise impact assessment criteria in Table 2 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.	2012 AEMR and 2013 Noise Audit (Atkins Acoustics) confirm compliance with the noise criteria.	Compliant						
	<table border="1"> <thead> <tr> <th>Location</th> <th>All periods dB(A) L_{Aeq} (15 min)</th> <th>Night dB(A) L_{A1} (1 min)</th> </tr> </thead> <tbody> <tr> <td>R1</td> <td>46</td> <td>47</td> </tr> </tbody> </table>	Location	All periods dB(A) L _{Aeq} (15 min)	Night dB(A) L _{A1} (1 min)	R1	46	47	2013 AEMR and 2013 Noise Audit (Atkins Acoustics) confirm compliance with the noise criteria.	Compliant
	Location	All periods dB(A) L _{Aeq} (15 min)	Night dB(A) L _{A1} (1 min)						
	R1	46	47						
	<table border="1"> <tbody> <tr> <td>R2</td> <td>41</td> <td>48</td> </tr> </tbody> </table>	R2	41	48	2014 AEMR and 2013 Noise Audit (Atkins Acoustics) confirm compliance with the noise criteria.	Compliant			
R2	41	48							
<table border="1"> <tbody> <tr> <td>R3</td> <td>41</td> <td>48</td> </tr> </tbody> </table>	R3	41	48	2015 AEMR and 2013 Noise Audit (Atkins Acoustics) confirm compliance with the noise criteria.	Compliant				
R3	41	48							
<table border="1"> <tbody> <tr> <td>All other privately-owned land</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	All other privately-owned land	35	45	2016 AEMR and 2013 Noise Audit (Atkins Acoustics) confirm compliance with the noise criteria.	Compliant				
All other privately-owned land	35	45							
3.1	Until 31 December 2011, the Proponent shall ensure that the noise generated by the project does not exceed the interim noise impact assessment criteria in Table 3 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land.	2017 AEMR and 2013 Noise Audit (Atkins Acoustics) confirm compliance with the noise criteria.	Compliant						
	<table border="1"> <thead> <tr> <th>Location</th> <th>All periods dB(A) L_{Aeq} (15 min)</th> <th>Night dB(A) L_{A1} (1 min)</th> </tr> </thead> <tbody> <tr> <td>R1</td> <td>48</td> <td>47</td> </tr> </tbody> </table>	Location	All periods dB(A) L _{Aeq} (15 min)	Night dB(A) L _{A1} (1 min)	R1	48	47	2018 AEMR and 2013 Noise Audit (Atkins Acoustics) confirm compliance with the noise criteria.	Compliant
	Location	All periods dB(A) L _{Aeq} (15 min)	Night dB(A) L _{A1} (1 min)						
	R1	48	47						
	<table border="1"> <tbody> <tr> <td>R2</td> <td>43</td> <td>48</td> </tr> </tbody> </table>	R2	43	48	2019 AEMR and 2013 Noise Audit (Atkins Acoustics) confirm compliance with the noise criteria.	Compliant			
	R2	43	48						
<table border="1"> <tbody> <tr> <td>R3</td> <td>43</td> <td>48</td> </tr> </tbody> </table>	R3	43	48	2020 AEMR and 2013 Noise Audit (Atkins Acoustics) confirm compliance with the noise criteria.	Compliant				
R3	43	48							
<table border="1"> <tbody> <tr> <td>All other privately-owned land</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	All other privately-owned land	35	45	2021 AEMR and 2013 Noise Audit (Atkins Acoustics) confirm compliance with the noise criteria.	Compliant				
All other privately-owned land	35	45							
<table border="1"> <tbody> <tr> <td>All other privately-owned land</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	All other privately-owned land	35	45	2022 AEMR and 2013 Noise Audit (Atkins Acoustics) confirm compliance with the noise criteria.	Compliant				
All other privately-owned land	35	45							
3.1	Schedule 3, Condition 5 is no longer applicable as the 31 December 2011 timeframe has now lapsed.	Noted							

Reference	Requirement	Evidence	Audit Finding
Noise Management Plan (July 2012)			
3.2 Noise Management Plan (Project Approval 09_0178)			
3.2	The Proponent shall prepare a Noise Management Plan for the project, to the satisfaction of the Director- General. The plan must:	Letter of approval from D-G sighted from 11/11/11	Compliant
	(a) be prepared in consultation with DECCW, and submitted to the Director-General for approval within 6 months of the date of this approval; and	NMP Dated July 2012, not within 6 months of the date of the approval. The requirement does not fall within the audit period.	Not triggered
	(b) include a Noise Monitoring Program, that uses a combination of real-time and supplementary attended monitoring measures, and includes a protocol for determining exceedences with the relevant conditions of this approval.	The NMP includes these requirements.	Compliant
3.2	OEH advised Baal Bone Colliery on 13 July 2011 that they encourage the development of NMP's to ensure that proponents have determined how they will meet their statutory obligations and environmental objectives as specified by conditions of the operator's environment protection licence. OEH advised Baal Bone Colliery that they do not review NMP documents, as their responsibility is to set environmental objectives for environmental/conservation management, not to be directly involved in the development of strategies to achieve those objectives.	Noted	Compliant
3.3 Operating Conditions (Project Approval 09_0178)			
3.3	The Proponent shall:	Noted	
	(a) implement best practice noise management, including all reasonable and feasible noise mitigation measures to minimise the operational, low frequency, rail, and road traffic noise generated by the project;	Mostly not triggered however during operation the site revised dozer operation on the coal stockpiles to assist with compliance with noise criteria.	Compliant
	(b) regularly assess the real-time noise monitoring and meteorological forecasting data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval, to the satisfaction of the Director-General.	Annual noise audit by Atkins Acoustics	Compliant
3.3	(c) Statement of Commitments	Noted	Compliant

Reference	Requirement	Evidence	Audit Finding
Noise Management Plan (July 2012)			
3.3	<p>Within twelve months of receiving Project Approval, the Proponent shall prepare a Site Noise Reduction Program (SNRP), which would include a Strategy for the reduction of noise generated from the Project area. The SNRP will include investigation of the following items to seek to reduce noise generated from the Project area where feasible:</p> <ul style="list-style-type: none"> • Replacement of damaged insulation installed in Washery Building; • Closure of façade openings in the Washery to Stockpile Transfer and/or Washery buildings; • Options to assess the feasibility and possibility of reducing noise emissions from the Bradford breaker; • Options to reduce noise emissions from the tracked dozer during night hours; and • A program for regular inspections of site plant including the dozer to ensure that the installed noise suppression controls are functioning and require no maintenance. 	<p>Noise reduction program developed in the period nominated.</p> <p>The NRP discussed and made recommendations for dozers on the stockpiles but didn't address Washery noise or the Bradford breaker but these items were not identified in the attended noise monitoring conducted to support the NRP.</p> <p>The key issue identified was the dozers and this is addressed.</p> <p>All of which is academic until the site resumes operations at which point the noise issues would require further review.</p>	Non-compliant
	<p>The SNRP will review and/or develop procedures to manage noise complaints from residents:</p> <ul style="list-style-type: none"> • Procedures for residents to contact the site environmental manager in regard to noise complaints or requests for information; • Procedures to inform residents of actions implemented following receipt of noise complaints; and • Procedures for the recording, investigation and follow up of noise complaints, and if required, site attended noise audits to identify additional procedures to minimise noise emissions from the Project area. 	<p>The Noise reduction program did not address complaints handling</p>	Non-compliant
3.3	The SNRP was developed and submitted to the Department of Planning in January 2012.	Noted	
3.4 Noise Assessment Criteria Ventilation Shaft (Project Approval 07_0035)			
	<p>Schedule 2, Condition 1:</p> <p>The Proponent will carry out the project generally in accordance with the:</p> <p>a) Environmental assessment titled Ventilation Shaft and Powerline Corridor for South Eastern Mining Area, Baal Bone Colliery, dated June 2007 and prepared by Umwelt (Australia) Pty Limited ; and associated</p> <p>b) Statement of commitments (see Appendix 2)</p>	Noted	
	<p>Commitments relating to noise in Statement of Commitments (Appendix 2) include:</p> <p>Noise generated at the premises will not exceed the noise limits in the following table at the nearest affected residential receiver.</p>	<p>Assessments of Construction (Atkins Acoustics, 1-4-08) and Operational (Atkins Acoustics, 9-5-08) noise at the nearest residence (Wolgan Valley) were sighted by the auditors.</p>	Compliant

Reference	Requirement	Evidence	Audit Finding												
Noise Management Plan (July 2012)															
3.4	<table border="1"> <thead> <tr> <th>Day</th> <th>Evening</th> <th colspan="2">Night</th> </tr> <tr> <th>L_{Aeq} 15min</th> <th>L_{Aeq} 15min</th> <th>L_{Aeq} 15min</th> <th>L_A max</th> </tr> </thead> <tbody> <tr> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	Day	Evening	Night		L _{Aeq} 15min	L _{Aeq} 15min	L _{Aeq} 15min	L _A max	35	35	35	45	Noted	
	Day	Evening	Night												
L _{Aeq} 15min	L _{Aeq} 15min	L _{Aeq} 15min	L _A max												
35	35	35	45												
<p><i>NOTES:</i></p> <p>(1) Day is 7am to 6pm Monday to Saturday and 8.am to 6pm Sundays and Public Holidays. Evening is 6pm to 10pm. Night is 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays</p> <p>(2) Noise from the ventilation system measured or predicted as a L_{Aeq}, 15min level at the most affected point on or within the residential property boundary or if this is more than 30m from the residence, at the most affected point within 30m of the residence not exceed the above criteria.</p> <p>(3) Noise generated from ventilation system measured as an L_{Amax} level outside a residential bedroom window during the night-time period between 10.00pm and 7.00am not exceed the above L_{A1}, 1min criteria.</p> <p>(4) The above noise criteria apply under the following meteorological conditions</p> <ul style="list-style-type: none"> a. Wind speeds up to 3m/sec at 10 metres above natural ground levels. b. Temperature gradients up to 3°C per 100m and wind speeds up to 2m/sec at 10 metres above ground level. <p>(5) The modification factors presented in Section 4 of the NSW EPA's (2000) <i>Industrial Noise Policy</i> apply to the measured levels where applicable</p>	Noted														
4. NOISE MANAGEMENT SYSTEM															
4.1 Noise Modelling															
4.1	Noise modelling for Baal Bone Colliery is reported in the Atkins Acoustics report titled 'Noise Impact Assessment Baal Bone Colliery. Numbered 39.6385R1 Rev 05 dated November 2009', the ventilation system noise is reported in Heggie ('Baal Bone Colliery Ventilation Shaft Installation and Operation Noise Impact Assessment. Numbered 10.5070.R2 Revision 1, dated 28 May 2007').	Noted by the auditors													
4.2 ROM Surface Infrastructure															
	Noise modelling (Atkins Acoustics) reported for the Baal Bone Colliery surface infrastructure confirmed that residence R1 is and would continue to be the most exposed to mine associate noise while R2/R3 are less exposed and will experience similar levels of mine noise. Predicted noise levels with an allowance for a 2dB site noise reduction assuming all plant and equipment operating are presented in Table 3.	Noted by the auditors													

Reference	Requirement	Evidence	Audit Finding																						
Noise Management Plan (July 2012)																									
4.2	<p>Table 3: Predicted Operational Noise Level $L_{Aeq, 15min}$ dB(A) re: 20 x 10⁻⁶ Pa</p> <table border="1"> <thead> <tr> <th rowspan="2">Reference Location</th> <th rowspan="2">Description</th> <th rowspan="2">Long Term Noise Criteria (All periods) $L_{Aeq, 15min}$</th> <th colspan="2">Predicted Sound Pressure Level $L_{Aeq, 15min}$</th> </tr> <tr> <th>Without Dozer</th> <th>With Dozer</th> </tr> </thead> <tbody> <tr> <td colspan="5">Operational Noise - Calm</td> </tr> <tr> <td>R1</td> <td>'Muldoon' Residence</td> <td>46</td> <td>41</td> <td>46</td> </tr> <tr> <td>R2/R3</td> <td>'Speirs/Desch' Residence</td> <td>41</td> <td>36</td> <td>41</td> </tr> </tbody> </table>	Reference Location	Description	Long Term Noise Criteria (All periods) $L_{Aeq, 15min}$	Predicted Sound Pressure Level $L_{Aeq, 15min}$		Without Dozer	With Dozer	Operational Noise - Calm					R1	'Muldoon' Residence	46	41	46	R2/R3	'Speirs/Desch' Residence	41	36	41	Noted by the auditors	
	Reference Location				Description	Long Term Noise Criteria (All periods) $L_{Aeq, 15min}$	Predicted Sound Pressure Level $L_{Aeq, 15min}$																		
Without Dozer		With Dozer																							
Operational Noise - Calm																									
R1	'Muldoon' Residence	46	41	46																					
R2/R3	'Speirs/Desch' Residence	41	36	41																					
<p>Operational Noise – Temperature Inversion (Night-time only)</p> <table border="1"> <thead> <tr> <th>Reference Location</th> <th>Description</th> <th>Long Term Noise Criteria (All periods) $L_{Aeq, 15min}$</th> <th>Without Dozer</th> <th>With Dozer</th> </tr> </thead> <tbody> <tr> <td>R1</td> <td>'Muldoon' Residence</td> <td>46</td> <td>46</td> <td>51</td> </tr> <tr> <td>R2/R3</td> <td>'Speirs/Desch' Residence</td> <td>41</td> <td>41</td> <td>46</td> </tr> </tbody> </table>	Reference Location	Description	Long Term Noise Criteria (All periods) $L_{Aeq, 15min}$	Without Dozer	With Dozer	R1	'Muldoon' Residence	46	46	51	R2/R3	'Speirs/Desch' Residence	41	41	46	Noted by the auditors									
Reference Location	Description	Long Term Noise Criteria (All periods) $L_{Aeq, 15min}$	Without Dozer	With Dozer																					
R1	'Muldoon' Residence	46	46	51																					
R2/R3	'Speirs/Desch' Residence	41	41	46																					
4.2	<p>Table 4 presents a summary of predicted $LA_{1,1min}$ levels (Atkins Acoustics) for receptors R1, R2 and R3.</p>	Noted by the auditors																							
	<p>Table 4: Predicted Intermittent Noise Levels – Night $LA_{1, 1min}$ dB(A) re: 20 x 10⁻⁶ Pa</p> <table border="1"> <thead> <tr> <th>Reference Location</th> <th>Description</th> <th>Assessment Criteria $LA_{1, 1min}$</th> <th>Predicted Noise Level $LA_{1, 1min}$</th> </tr> </thead> <tbody> <tr> <td>R1</td> <td>'Muldoon' Residence</td> <td>47</td> <td>42</td> </tr> <tr> <td>R2/R3</td> <td>'Speirs/Desch' Residence</td> <td>48</td> <td>39</td> </tr> </tbody> </table>	Reference Location	Description	Assessment Criteria $LA_{1, 1min}$	Predicted Noise Level $LA_{1, 1min}$	R1	'Muldoon' Residence	47	42	R2/R3	'Speirs/Desch' Residence	48	39	Noted by the auditors											
Reference Location	Description	Assessment Criteria $LA_{1, 1min}$	Predicted Noise Level $LA_{1, 1min}$																						
R1	'Muldoon' Residence	47	42																						
R2/R3	'Speirs/Desch' Residence	48	39																						
5. NOISE MONITORING PROGRAM																									
5.1 Attended Noise Monitoring																									
5.1	<p>In addition to real-time noise monitoring (Figure 1) which is supplementary to regulatory measurements, attended monitoring will be undertaken initially at receptors R1 and R2/R3 on a quarterly basis or as required to address reported noise incidents. As R2 and R3 are within 50 meters proximity of each other, monitoring for these locations will be concurrent and be taken at the midway point between them.</p>	<p>Quarterly Noise Compliance Audits from 2012 performed by Atkins Acoustics confirm monitoring at these locations.</p>	Compliant																						
	<p>The quarterly monitoring frequency will be undertaken until December 2012 (mining ceased in September 2011). While Baal Bone is not an operating mine (from January 2013) attended monitoring frequency will be modified to be annual provided that no significant changes in noise trends are identified.</p>	<p>Quarterly monitoring occurred in 2012 by Atkins Acoustics. 2013 Annual Survey conducted by Atkins Acoustics on 21/11/13.</p>	Compliant																						
	<p>Scheduled operator attended noise monitoring will be undertaken during day, evening and night time assessment periods. Noise measurements at each assessment location will be undertaken over two consecutive 15 minute periods. The measurement results reported will include the L_{Amax}, LA_1, L_{Aeq} and LA_{90} levels and measured/calculated L_{Amax} and L_{Aeq} contributions from Baal Bone Colliery.</p>	<p>Quarterly Noise Compliance Audits from 2012 and 2013 annual monitoring performed by Atkins Acoustics confirm monitoring at these locations and periods.</p>	Compliant																						

Reference	Requirement	Evidence	Audit Finding
Noise Management Plan (July 2012)			
	When direct measurement is not feasible to verify Baal Bone Colliery noise contributions, modelling will be undertaken to confirm the contribution. The measured or calculated contributed noise level will be adopted to assess against the Project Approval criteria (09_0178).	Direct measurements were used by Atkins Acoustics.	Not triggered
5.2 Noise Measurement			
5.2	Noise measurements will be undertaken in accordance with the Australian Standards AS1055-1997 'Acoustics - Description and Measurement of Environmental Noise' and the DECCW 'Industrial Noise Policy'.	Atkins Acoustics Noise Compliance Audits reference Industrial Noise Policy but no reference to Australian Standards. The acoustics consultant confirmed post audit that the report was compliant with the AS and future reports would reference the standard in addition to the INP.	Compliant
	Noise from Baal Bone Colliery will be measured or predicted as an LAeq 15min level at the most affected point on or within the residential property boundary or if this is more than 30m from the residence, at the most affected point within 30m of the residence. LAmx noise from Baal Bone Colliery will be measured or predicted to outside a residential bedroom window during the night-time period between 10.00pm and 7.00am.	Noise Compliance Audits state this method was used in their measurements	Compliant
	Noise measurements for the purpose of assessing compliance status will be undertaken with instrumentation calibrated by a NATA Certified Laboratory. Instrumentation calibration levels will be checked with a portable calibrator immediately before and after the audit measurements with the variation in calibration levels not exceeding ±0.5dB. Copies of the meter calibration certificates will be attached to the compliance audit noise report.	Atkins Acoustics states its instrumentation is NATA calibrated and certificates attached.	Compliant
5.3 Real Time Noise Monitoring			
5.3	As part of Baal Bone Collieries commitment to manage site noise and assist with the assessment of incident reports real-time noise monitoring has been installed adjacent to R2 (see Figure 1). The data collected by the monitor is capable of providing time referenced audio recordings, 15-minute statistical measurement results and triggering alarms for the purpose of identification and investigation elevated noise levels. The real-time noise monitoring results are not intended for determining compliance status with consent noise limits.	Real-time noise monitor is in place at R2.	Compliant
	The real time noise monitoring program at Baal Bone will continue throughout the non operating phase.	Scheduled to continue however attended monitoring is done on an annual basis from 2013 onwards	Compliant
5.4 Meteorological Conditions			
5.4	In the event the Baal Bone Colliery weather station data is not available, data from the Lithgow Meteorological Station located in Birdwood St, Lithgow will be used.	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding						
Noise Management Plan (July 2012)									
5.5 Noise Management									
5.5	<p>TWCL is committed to the management of noise at residential dwellings from operational activities associated with Baal Bone Colliery. In accordance with this commitment specific activities and controls that will be implemented to manage noise from site activities, include:</p> <ul style="list-style-type: none"> • monitor noise in accordance with the NMP; • effectively maintain all equipment used onsite; and • manage modifications to plant and equipment that could potentially increase noise emitted from the site. 	Noted by the auditors	Compliant						
5.6 Response to Noise Alarms, Complaints and Incidents									
	The following Trigger Action Response Plan (TARP) will be implemented to manage alarms, complaints and incidents.	Not in the audit period	Not triggered						
	<p>Table 5: Trigger Action Response Plan</p> <table border="1"> <thead> <tr> <th>Trigger</th> <th>Action</th> <th>Response</th> </tr> </thead> <tbody> <tr> <td>Any high level alarm received from SentineX Unit (SMS and email)</td> <td>Listen to audio recording and determine likely noise source.</td> <td> <p>If noise attributed to Baal Bone Colliery modify mine operations.</p> <p>If noise is determined to be another source record investigation (via Appendix 1 form).</p> </td> </tr> </tbody> </table>	Trigger	Action	Response	Any high level alarm received from SentineX Unit (SMS and email)	Listen to audio recording and determine likely noise source.	<p>If noise attributed to Baal Bone Colliery modify mine operations.</p> <p>If noise is determined to be another source record investigation (via Appendix 1 form).</p>	Not in the audit period	Not triggered
Trigger	Action	Response							
Any high level alarm received from SentineX Unit (SMS and email)	Listen to audio recording and determine likely noise source.	<p>If noise attributed to Baal Bone Colliery modify mine operations.</p> <p>If noise is determined to be another source record investigation (via Appendix 1 form).</p>							
	<table border="1"> <tbody> <tr> <td>Consecutive SentineX Unit alarms attributed to Baal Bone Colliery</td> <td>Investigate noise source using attended noise monitoring and develop actions to reduce Baal Bone Colliery noise.</td> <td>Review NMP including attended noise monitoring frequency.</td> </tr> </tbody> </table>	Consecutive SentineX Unit alarms attributed to Baal Bone Colliery	Investigate noise source using attended noise monitoring and develop actions to reduce Baal Bone Colliery noise.	Review NMP including attended noise monitoring frequency.	Not in the audit period	Not triggered			
Consecutive SentineX Unit alarms attributed to Baal Bone Colliery	Investigate noise source using attended noise monitoring and develop actions to reduce Baal Bone Colliery noise.	Review NMP including attended noise monitoring frequency.							

Reference	Requirement	Evidence	Audit Finding
Noise Management Plan (July 2012)			
5.6	<p>Noise complaint received</p> <p>Document complaint on the Baal Bone Environmental Incident Report Form and Community Complaint Report Form. Listen to audio recording and determine likely noise source.</p>	<p>If noise attributed to Baal Bone Colliery modify mine operations.</p> <p>If noise is determined to be another source record investigation (via Appendix 1 form).</p>	Not triggered
	<p>Determine if additional noise monitoring is required to adequately investigate complaint.</p>	<p>Arrange noise monitoring if required.</p>	
	<p>Document complaint and investigation in XstraSafe.</p>	<p>Respond to complainant with outcomes of investigation.</p>	
5.6	<p>Exceedance of PA 09_0178 and PA 07_0035 criteria in attended noise monitoring</p> <p>Investigate noise source using attended noise monitoring and develop actions to reduce Baal Bone Colliery noise.</p>	<p>Review NMP including frequency of attended noise monitoring.</p> <p>Document incident, investigation and outcomes in XstraSafe.</p>	Not triggered
	<p>If the results of attended monitoring are greater than Table 1 within 2 weeks of obtaining the monitoring results, notify the Director-General,</p>		
	<p>the affected landowners and tenants accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the criteria in Schedule 3 of PA 09_0178.</p>		
5.7 Incident and Complaint Management			
	<p>Incident and community complaints management includes receipt of an incident/complaint, an investigation, implementation of appropriate remedial action, and feedback to the complainant as required. Additionally, communication to site management or personnel and notification to relevant external bodies, such as the EPA and DoPI, are also undertaken where necessary.</p>	Not in the audit period	Not triggered
	<p>Baal Bone Colliery operates an incident reporting and inquiry telephone line (02 6350 6900) advertised to the public via the Baal Bone website, the EPA and public notices such as newsletters. Community complaints are forwarded to the Environment and Community Officer and managed in accordance with BBN SD PRO 0012 Community Complaints Management Procedure.</p>	Noted	

Reference	Requirement	Evidence	Audit Finding
Noise Management Plan (July 2012)			
5.7	As soon as practicable, the Environment and Community Officer will complete an Environmental Incident Report Form & Community Complaint Report Form (BBN SD FRM 0055) to record details. All complaints received are entered into XstraSafe where following are recorded: <ul style="list-style-type: none"> • The date and time of the complaint; • The method by which the complaint was received; • The personal details of the complainant which were provided by the complainant; • The nature of the complaint; • The action(s) taken to address the complaint including follow up contact; and • If no action is taken the reason why no action was taken. 	Not in the audit period	Not triggered
	Details and number of complaints are reported annually in the Annual Review and in the Annual Return for EPL 765 in accordance with Baal Bone's reporting requirements. As per Project Approval 09_0178 a complaints register (updated quarterly) is published on the Baal Bone webpage.	Noted and on website	
	As per Schedule 5, Condition 9 of Project Approval 09_0178 a complaints register (updated quarterly) will be published on the Baal Bone website at: http://www.xstratacoal.com/EN/Operations/Baalbone/Pages/BaalBone.aspx .	On website	Compliant
	As part of compliance noise audits, inquiries will be made with the Baal Bone Colliery Environmental Officer to assess reported noise incidents and actions undertaken to investigate and address the reported incidents. Details of the nature of the incident including date, name and address of the persons(s) reporting the incident and Baal Bone Colliery responses will be reported in the noise audit report.	2012 quarterly noise audit reports (Atkins Acoustics) refer to inquiries with the Officer. 2013 annual monitoring does the same.	Compliant
	If through the measurement of noise impacts at R1, R2, R3 or R4 noise levels are found to be constantly breaching the stated noise criteria or if noise becomes an excessive impost on those receptors, Baal Bone Colliery will look into the feasibility of coming to an agreement with the receptors affected as a compensation measure and will notify the DoPI as per the notes to Schedule 3, Condition 4 in order to maintain compliance with Part 3A Approval 09_0178.	No evidence of constantly breaching criteria in the noise audit reports.	Not triggered
6. REPORTING, REVIEW AND IMPROVEMENT			
6	The results and findings of all scheduled noise monitoring and incident investigations will be reported on the Baal Bone website within two weeks of receiving results in line with the Protection of the Environment Operations Act 1997.	Only August 2012 and November 2013 (Atkins Acoustics) noise audit report posted within 2 weeks of date of receipt.	Non-compliant
6	Results will be summarised in the Annual Review as per PA 09_0178 Schedule 5 Condition 3 and other various mining lease conditions.	In 2012 AEMR, only comparing monitoring results to EA. No comment on comparison to previous years results of specific measurement criteria as required by PA 09_0178.	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Noise Management Plan (July 2012)			
6.1 Reporting Attended Noise Monitoring Results			
6.1	<p>The attended noise monitoring reports will include the following:</p> <ul style="list-style-type: none"> • Dates and time of the monitoring. • Details and qualifications of person(s) who conducted the monitoring. • A map identifying noise measurement locations. • Details of meteorological conditions. • Confirmation of site operating conditions. • Measured L_{Amax}, 15min, LA₁, 15min, LA₁₀, 15min , LA₅₀, 15min, LA₉₀, 15min and LA_{eq}, 15min levels. • Measured/calculated LA_{eq}, 15min and LA max contributions from Baal Bone Colliery. • Description of noise sources identified during the monitoring. • Noise compliance/non-compliance status of Baal Bone Colliery during the monitoring, and • Summary of noise incidents reported at Baal Bone Colliery since the previous 	Noise audit reports (Atkins Acoustics) do not include details or qualifications of the personnel that conducted the monitoring.	Non-compliant
6.2 Reporting Non-Compliances			
6.2	The Proponent will notify the Director General and any other relevant agencies of any reported noise incident associated with Baal Bone Colliery as soon as practical after the Proponent becomes aware of the incident.	Not in the audit period	Not triggered
	Within 7 days of the date of the incident, the Proponent will provide the Director General and any other relevant agencies with a detailed report on the incident.	Not in the audit period	Not triggered
	Any recorded incidents will be recorded as such and reported in the Annual Review.	Not in the audit period	Not triggered
6.3 Review and Improvement			
6.3	The NMP will be reviewed as part of the annual EMS review required under Schedule 5, Condition 3 of PA 09_0178 or as directed by the Director General. The review will reflect changes to site operating conditions and assessment guidelines.	Noted by the auditors	Compliant
	As required or directed by the Director General the NMP will be updated and actions taken to improve the effectiveness of monitoring and follow-up investigations and management practices.	Noted by the auditors	Compliant
7. ACCOUNTABILITIES			
Baal Bone Colliery Operations Manager	<ul style="list-style-type: none"> • Provide direction for environmental management in accordance with Baal Bone Colliery Environmental Policy; • Provide direction for the review of Baal Bone Colliery Environmental Policy; and • Provide adequate resources to implement the requirements of the NMP. 	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Noise Management Plan (July 2012)			
Baal Bone Colliery Environment and Community Officer	<ul style="list-style-type: none"> • Update the NMP as relevant for current site activities incorporating monitoring performance in line with statutory requirements; • Co-ordinate scheduled noise monitoring and investigate reported noise incidents; • Maintain protocols to investigate and evaluate the effectiveness of noise mitigation controls; • Liaise with local landowners as required and follow-up reported noise incidents; • Co-ordinate with regulatory authorities on noise matters relating to approvals and consent conditions as required; • Notify regulatory authorities and/or affected land-owners of any relevant issues relating to the consent conditions and prepare any associated reporting; and • Advise of relevant training requirements in relation to the NMP. 	Noted by the auditors	Compliant
Baal Bone Colliery Under Manager in Charge	<ul style="list-style-type: none"> • Implement incident reporting requirements; and • Implement the Trigger Action Response Plan described in this plan. 	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Subsidence Management Plan LW 29-31 (May 2007)			
3. RESPONSIBILITIES AND RESOURCES			
3	Baal Bone's Environment and Community Coordinator is responsible for monitoring the implementation of this plan.	Noted	Compliant
3	Baal Bone's Mine Manager is responsible for ensuring that sufficient resources are available to implement the requirements of this Plan.	Noted	Compliant
3	Each of the management strategies developed to manage subsidence allocates responsibilities in relation to their implementation. Relevant personnel will be provided with a copy of relevant documents. Training will be provided where deemed appropriate.	Not in the audit period	Not triggered
6. OVERALL APPROACH TO SUBSIDENCE MANAGEMENT			
6	The Mine's overall strategy for subsidence management is:	Noted	
	1. Design to reduce surface impacts - Mine design is such that predicted subsidence is not expected to result in negative surface impacts (that is, manageable levels of subsidence, tilts, strains, and minor surface cracking).	Not in the audit period	Not triggered
	2. Identify environmental risks – A risk assessment is undertaken to determine environmental risks.	Not in the audit period	Not triggered
	3. Measure baseline information – Establish background data for the surface above the proposed mining area, including subsidence monitoring points and the monitoring of intermittent watercourse flows, groundwater, flora, fauna and weather.	Not in the audit period	Not triggered
	4. Monitor the effects of mining - Continue monitoring of subsidence, watercourse flows, flora and fauna, groundwater, underground water make and weather patterns.	Not in the audit period	Not triggered
	5. Regularly assess and interpret monitoring – Monitoring data is analysed to identify any variances	Not in the audit period	Not triggered
	6. Re-assess impacts – where variances are identified that are greater than predictions (ie trigger points are reached), additional assessment of impacts is undertaken.	Not in the audit period	Not triggered
	7. Identify and implement remedial actions – if additional assessment indicates greater impacts then remedial action may be required. Stakeholder consultation will be undertaken in determining and implementing remedial actions.	Cracking was identified and remediated in the audit period	Compliant
	8. In the event that a link is established between underground mining and surface water effects, implement agreed appropriate remediation and / or mitigation measures in consultation with the Department of Primary Industries – Mineral Resources (DPI – MR), Forest NSW and other appropriate stakeholders.	Not in the audit period	Not triggered
	9. Provide regular progress reports to relevant parties and hold periodic consultation meetings. Such reports and consultation to include updates on all monitoring results, including any impacts and management actions.	Regular Status Reports are being provided 4-monthly.	Compliant
7. MINE DESIGN			
7	Protection from subsidence impact is provided to the Wolgan Escarpment and neighbouring Coxs River Swamp and impacts limited on other rock formations due to the design of the longwall mining layout.	Design was approved and conducted outside of the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
Subsidence Management Plan LW 29-31 (May 2007)			
8. MONITORING AND MANAGEMENT			
8.7 Aboriginal Places and Archaeological Sites			
8.7	a) If subsidence predictions indicate that the location of BBS-RS1 will be only minimally impacted by potential subsidence, then no further archaeological assessment of this location is considered necessary.	Noted	Not triggered
	b) If, however, subsidence predictions indicate that this location is likely to suffer extensive disturbance and plans of the underlying longwalls cannot be altered to alleviate this, then a program of limited sub-surface test excavation within the rockshelter and its immediate environs is recommended to determine the presence or absence of Indigenous occupation evidence. The resultant information will allow an informed assessment of the scientific and cultural significance of the rockshelter thus enabling the formulation of appropriate management recommendations. The Proponent would be required to engage a suitably qualified archaeologist to prepare a Section 87(1) permit application and research design for lodgement with the Director-General of the NSW DEC. Concomitant Aboriginal community liaison would also be required. Processing time for permit applications with the DEC is a minimum of 8 weeks.	Noted	Not triggered
8.8 Survey Mark			
8.8	The Department will be provided with notification of commencement of mining, regular updates of the progress of mining, and will be advised if Wolgan Gap Trig station survey mark is affected by mining and when subsidence effects are complete. Monitoring of the Wolgan Gap trig will be addressed in the Subsidence Monitoring Program which will be prepared in consultation with and agreed by the Principal Subsidence Engineer – Mineral Resources	Not in the audit period	Not triggered
8.8	Any resurvey required will be carried out after notification by Baal Bone and consultation with the Department.	Not in the audit period	Not triggered
8.9 Groundwater / Swamp			
8.9	Where monitoring is undertaken, it is advisable to establish contingency measures to be carried out in the event that the monitoring detects any abnormal impacts. These contingency measures should include the following actions:	TARP investigation of groundwater reviewed.	Compliant
	1. If the monitoring highlights any anomalous groundwater behaviour in the vicinity of the swamp, a field inspection should be carried out at the swamp by a hydrogeologist accompanied by Baal Bone staff. Anomalous behaviour is defined as any fluctuation or change in the hydrogeological conditions that cannot be explained by climatic fluctuations or the established hydrogeological model. The field inspection should be targeted at determining if there have been any adverse consequences at the swamp resulting from the anomalous condition.	TARP investigation of groundwater reviewed.	Compliant
	2. Following the field inspection, a full evaluation, should be carried out in order to determine the cause of the anomalous behaviour if possible. The evaluation should take account of all available monitoring data, including piezometer data, pumping data and subsidence data, as well as the results of the field inspection.	TARP investigation of groundwater reviewed.	Compliant
	3. The evaluation should attempt to determine whether the observed anomaly represents a temporary or permanent disruption to the hydrogeological regime, and the likely impact, both short-term and long-term, on the affected swamp. The evaluation should also assess whether any impact is localised or widespread.	TARP investigation of groundwater reviewed.	Compliant

Reference	Requirement	Evidence	Audit Finding
Subsidence Management Plan LW 29-31 (May 2007)			
	4. Following the evaluation, recommendations should be made for any additional monitoring measures that may be necessary in order to determine the cause and/or impact of the anomalous condition. Such monitoring may include (but should not be limited to), detailed subsidence surveys, installation of additional groundwater observation bores or piezometers, or flora and fauna surveys. The type and extent of monitoring will depend on the nature and severity of the anomalous condition.	TARP investigation of groundwater reviewed.	Compliant
	5. If the anomalous condition has resulted in a significant loss of groundwater or surface water flow to the swamp, it may be necessary to provide a temporary alternative water supply upstream of the head of the swamp to replace the lost flows. While this is not considered to be a permanent solution, it should provide an acceptable solution while the problem is rectified or investigated.	TARP investigation of groundwater reviewed.	Compliant
	6. If the anomalous condition prevails, and the condition is judged to be deleterious to the swamp in the long term, recommendations will be made for any remedial measures to mitigate the adverse impacts. Depending on the nature of the condition, such measures may be necessary prior to the passage of the subsequent longwall panel. The type and extent of remedial measures implemented will depend largely on the nature of abnormal condition and its potential impact on the swamp. Such measures may range from continued monitoring and evaluation to physical measures including grouting or earthworks.”	TARP investigation of groundwater reviewed.	Compliant
8.10 Monitoring			
8.10.1	Proposed – The Subsidence Survey Monitoring Program for LWs 29-31 will be prepared in consultation with and agreed by the Principal Subsidence Engineer – Mineral Resources following a detailed surface inspection as part of the SMP application assessment process. To include as a minimum:	Not in the audit period	Not triggered
	• A cross line located at a convenient location across the centre of the three panels with a peg spacing of about 10m and monitoring in three dimensions before, during and after mining generally at right angles to the panel centre line.	Not in the audit period	Not triggered
	• A program of stress monitoring in the cliff forming sandstones (upper 80m) of the overburden strata between Longwall 26 goaf and the Wolgan Escarpment at a point near the start of Longwall 26. The intent of this monitoring is to confirm that the horizontal stress concentrations are indeed as low as expected and within the tolerance that is typically exhibited by sandstone cliff formations to mining induced compression movements.	Not in the audit period	Not triggered
	The results of this monitoring will be available well in advance of mining Longwall 31 to confirm the adequacy of the barrier between Longwall 31 and the Wolgan Escarpment.	Not in the audit period	Not triggered
	• Short subsidence lines at the “pinch” points along the edge of Longwall 31 to provide further confirmation that the horizontal and vertical subsidence movements that occur when Longwall 31 is mined are consistent with expectation.	Not in the audit period	Not triggered
8.10.1	Potential Rock Shelter (BBC RS1) - A short subsidence line along a section near the start position of LW 29, in a similar relative location to the potential rock shelter (BBC RS1) located over LW 30, to monitor movement. This will assist in determining if there is a requirement for a management strategy, including sub-surface test excavations to be implemented.	Not in the audit period	Not triggered
	• Specific subsidence monitoring of other sandstone rock formations including photographic monitoring and visual inspections.	Not in the audit period	Not triggered
	As noted above this program will be developed in conjunction with, and with approval by, the Principal Subsidence Engineer – Mineral Resources.	Not in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
Subsidence Management Plan LW 29-31 (May 2007)			
8.10.2	As the watercourses in the SMP application area are ephemeral and are basically headwater gullies, which only flow immediately following rain, no baseline monitoring has been carried out. Proposed monitoring is to consist of visual inspections on a regular basis and particularly during or immediately following rain events to observe both flow and any impacts.	Ongoing monitoring is continuing monthly	Compliant
8.10.3	These monitoring bores (piezometers) will be installed and equipped prior to September 2007, subject to authority approvals, and monitored in the period before and during coal extraction, with the groundwater monitoring activities to include the following aspects:	Not in the audit period	Not triggered
	• Continuous monitoring of water levels in the swamp and the groundwater monitoring holes on the flanking areas;	Ongoing monitoring is continuing monthly	Compliant
	• Regular review of the monitoring results (two monthly) in order to identify any abnormal trends in the data; and	Ongoing monitoring is continuing monthly with a hydrologist reviewing the monitoring 2-monthly	Compliant
	• Reporting on the impact of mining following the passage of each longwall.	Not in the audit period	Not triggered
	Monitoring and reporting by Connell Wagner (or other groundwater specialist).	Aurecon (water levels) and ALS (water quality) conduct the monitoring and reporting	Compliant
	Additionally photographic monitoring will be conducted.	Conducted as a part of routine monitoring	Compliant
8.10.4	Surveys were conducted in October 2005 and January 2007 to provide baseline data. Monitoring will continue as part of the SMP monitoring program. By – Gingra Ecological Surveys (or other flora specialist) Frequency level – six monthly (seasonal)	Not in the audit period	Not triggered
8.10.5	Surveys were conducted in Spring 2005 and Summer 2006 to provide baseline data which will be used to monitor changes (if any) in populations that may occur. Monitoring will continue as part of the SMP monitoring program. By – Mount King Ecological Surveys (or other fauna specialist) Frequency level – Three per year at appropriate times, early autumn (best for mammals and reptiles), spring (best for birds) and a short survey in late summer (for threatened reptiles, frogs and invertebrates).	Not in the audit period	Not triggered
8.10.6	Specific survey subsidence monitoring of the Wolgan Escarpment and rock formations will be developed in conjunction with, and agreed by, the Principal Subsidence Engineer – Mineral Resources. Photographic monitoring and visual inspections are detailed in the Environmental Monitoring Program.	Not in the audit period	Not triggered

Reference	Requirement					Evidence	Audit Finding	
Subsidence Management Plan LW 29-31 (May 2007)								
8	Item	Monitoring Program and Frequency	Actions Required	Person Responsible	Target Date	Trigger / Response		
	Subsidence	To be confirmed with DPI - Mineral Resources	1. Consult with DPI - MR for development of Subsidence Monitoring Program 2. Establish monitoring lines and baseline monitoring in accordance with DPI-MR requirements over future mining area 3. Monitor at agreed intervals 4. Install stress monitoring bore between LW 26 and Wolgan Escarpment	Technical Services Manager Mine Surveyor or contract surveyor Mine Surveyor or contract surveyor Technical Services Manager	July 2007 Prior to commencement of LW 29 extraction - March 2008 Agreed intervals from commencement of LW 29 extraction August 2007	See Table 2 - Public Safety Management Plan. Also to be included in Subsidence Monitoring Program	Not in the audit period	Not triggered
	Surface watercourses / drainage lines	Proposed : 1.Ephemeral watercourses / drainage lines to be visually inspected for flow on a regular basis during or following rainfall events exceeding 25mm over a 24 hour period or monthly as part of routine surface inspection.	Inspect as noted for flow and any subsidence impact during mining.	Environment and Community Coordinator or nomination	Baseline inspection for LW 29 to be completed by March 2008	See Section 7.3 and Table 4 Environmental Monitoring Program	Not in the audit period	Not triggered
	Groundwater	Four groundwater monitoring bores and piezometers established. Continuous monitoring with data collection at two monthly intervals.	Two additional groundwater monitoring bores and piezometers to be installed. Continuous monitoring with data collection at two monthly intervals. Photographic Monitoring at bore sites undertaken at four monthly intervals	Environment and Community Coordinator / Connell Wagner Environment and Community Coordinator or nomination.	Installation of additional groundwater bores prior to September 2007, subject to authority approval. Baseline survey to be completed by September 2007.	See Section 7.1 and Table 4 Environmental Monitoring Program	Not in the audit period	Not triggered
Flora	Monitoring quadrats established. Baseline monitoring completed and ongoing program established (two surveys per year)	Continue existing established monitoring program	Environment and Community Coordinator / Gingra	Ongoing (two surveys per year)	Table 4 Environmental Monitoring Program	Not in the audit period	Not triggered	

Reference	Requirement					Evidence	Audit Finding
Subsidence Management Plan LW 29-31 (May 2007)							
	Fauna	Monitoring locations established. Baseline monitoring completed and ongoing program established (three surveys per year).	Continue existing established monitoring program	Environment and Community Coordinator / Mount King	Ongoing (three surveys per year)	Table 4 Environmental Monitoring Program	Not in the audit period Not triggered
	Escarpment	Proposed: Visual inspections at weekly intervals during longwall mining of LW31. Photographic monitoring at monthly intervals during longwall mining of LW 31 or if changes noted on inspection.	Baseline inspection and photographic monitoring to be completed minimum of four months prior to extraction of each longwall.	Environment and Community Coordinator or nomination.	Baseline inspection and photographic monitoring for LW 29 to be completed prior to March 2008.	See Section 7.2 and Table 4 Environmental Monitoring Program	Not in the audit period Not triggered
	Rock Features / Surface Features	Proposed: Visual inspections at monthly intervals during longwall mining. Photographic monitoring at four monthly intervals during longwall mining or if changes noted on inspection.	Baseline inspection and photographic monitoring to be completed minimum of four months prior to extraction of each longwall.	Environment and Community Coordinator or nomination.	Baseline inspection and photographic monitoring for LW 29 to be completed prior to March 2008.	See Section 7.2 and Table 4 Environmental Monitoring Program	Not in the audit period Not triggered
	Roads / Trails	Proposed: Visual inspections at weekly intervals during longwall mining. Photographic monitoring at four monthly intervals during longwall mining or if changes noted on inspection.	Baseline inspection and photographic monitoring to be completed minimum of four months prior to extraction of each longwall.	Environment and Community Coordinator or nomination.	Baseline inspection and photographic monitoring for LW 29 to be completed prior to March 2008.	See Section 7.4 and Table 4 Environmental Monitoring Program. Also Road Management Plan and Public Safety Management Plan	Not in the audit period Not triggered
	Underground water make	Proposed: Underground Water Make Monitoring Program	Program to be developed and implemented	Environment and Community Coordinator or nomination.	Program developed : June 2007. implemented : September 2007.	Underground Water Make Monitoring Program in preparation	Not in the audit period Not triggered
10. ONGOING STAKEHOLDER CONSULTATION							
10	Baal Bone has an established Community Consultative Committee in relation to the mine operations. Ongoing consultation will be carried out with a number of stakeholders not just on subsidence related matters but on the progress of the mine and overall environmental performance.					Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Subsidence Management Plan LW 29-31 (May 2007)			
11. REPORTING			
11	Results of subsidence surveys, monitoring, inspections and effectiveness of management strategies are to be reported in the four monthly Subsidence Management Status reports, part of the Subsidence Community Consultation Process (SMP 29-31-3), and also the Annual Environmental Management Report.	Noted by the auditors	Compliant
11	Additionally, notification will be provided to relevant Authorities of any occurrence requiring mitigation or remediation as detailed in the Triggers Actions and Management Responses.	Notifications provided for the major impact TARP for groundwater exceedences.	Compliant
12. REVIEW			
12	This plan will be reviewed as necessary including: <ul style="list-style-type: none"> In the event that government agencies raise issues that necessitate a review, or 	Not in the audit period	Not triggered
	<ul style="list-style-type: none"> Monitoring demonstrates that impacts are such that a review is warranted. 	Major impact TARP for groundwater exceedences were triggered.	Compliant
	Any review will be conducted in consultation with the Department of Primary Industries – Mineral Resources. In the event of the management plan being changed a copy will be sent to the relevant agencies.	Not in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding																						
Subsidence Management Plan LW 29-31 - Land Management Plan (Revision June 2009)																									
2. RESPONSIBILITIES AND RESOURCES																									
2	Baal Bone's Environment and Community Coordinator is responsible for the implementation of this plan.	Noted																							
2	Baal Bone's Operations Manager is responsible for ensuring that sufficient resources are available to implement the requirements of this Plan.	Noted																							
4. BACKGROUND																									
4	It must be noted that subsidence of the surface resulting from longwall mining will be monitored as presented in the Subsidence Monitoring Program for LW 29-31, developed in consultation with the Principal Subsidence Engineer – Mineral Resources under Condition 12 of the SMP Approval.	Not in the audit period	Not triggered																						
6. INSPECTIONS - LOCATIONS AND FREQUENCY																									
	Visual inspections, plus photographic and video monitoring will be conducted over the surface area at regular intervals during mining of the longwall panels. Inspection and monitoring types and frequency are listed in Table 1.	Noted																							
	<p>Table 1 – Land Management Inspection and Monitoring Schedule</p> <table border="1"> <thead> <tr> <th>Item</th> <th>Inspection / Monitoring Type</th> <th>Parameters Monitored / Impacts</th> <th>Monitoring Frequency</th> <th>Responsibility</th> <th>Notes / Comments</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Forest roads & access tracks</td> <td>Visual</td> <td>Surface cracking Mining induced erosion Public safety</td> <td>Pre-mining Weekly during longwall mining of relevant panel (see comments), or frequency as amended by TARP Post-mining</td> <td>Baal Bone Environment and Community Coordinator or nomination</td> <td>Weekly monitoring is to commence when approaching LW face is 60m from road and to be continued until retreating LW face is 200m past road Refer to <u>Public Safety Management Plan</u> for specific details regarding public safety.</td> </tr> <tr> <td>Photographic</td> <td>Surface cracking Mining induced erosion Public safety</td> <td>If changes noted during visual inspection and as required by TARP</td> <td>Baal Bone Environment and Community Coordinator or nomination</td> <td></td> </tr> <tr> <td>Video</td> <td>General surface condition</td> <td>Pre-mining Post-mining</td> <td>Baal Bone Environment and Community Coordinator or nomination</td> <td></td> </tr> </tbody> </table>	Item	Inspection / Monitoring Type	Parameters Monitored / Impacts	Monitoring Frequency	Responsibility	Notes / Comments	Forest roads & access tracks	Visual	Surface cracking Mining induced erosion Public safety	Pre-mining Weekly during longwall mining of relevant panel (see comments), or frequency as amended by TARP Post-mining	Baal Bone Environment and Community Coordinator or nomination	Weekly monitoring is to commence when approaching LW face is 60m from road and to be continued until retreating LW face is 200m past road Refer to <u>Public Safety Management Plan</u> for specific details regarding public safety.	Photographic	Surface cracking Mining induced erosion Public safety	If changes noted during visual inspection and as required by TARP	Baal Bone Environment and Community Coordinator or nomination		Video	General surface condition	Pre-mining Post-mining	Baal Bone Environment and Community Coordinator or nomination		Sighted in EOP Reports	Compliant
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Reference	Requirement					Evidence	Audit Finding		
Subsidence Management Plan LW 29-31 - Land Management Plan (Revision June 2009)									
6	Surface pagoda rock formations (adjacent to start of LW 29 & 30; does not include Wolgan Escarpment)		Visual	Surface cracking Rock fall Public safety	Pre-mining Weekly during longwall mining of relevant panel (see comments) Post-mining (end of panel)	Baal Bone Environment and Community Coordinator or nomination	LW29: Weekly monitoring to be continued until retreating longwall face has travelled 200m from start line; and again as LW30 face line approaches and passes LW29 start line. LW30 & 31: Weekly monitoring to be continued until retreating longwall face has travelled 200m from start line. Refer to <u>Public Safety Management Plan</u> for specific details regarding public safety.	Sighted in EOP Reports	Compliant
			Photographic	Surface cracking Rock fall Public safety	Pre-mining If changes noted during visual inspection and as required by TARP	Baal Bone Environment and Community Coordinator or nomination	Location of pre-mining condition Photopoints illustrated in Figure 2 .		
	Wolgan Escarpment		Visual	Surface cracking Rock fall	Pre – mining Weekly/fortnightly during longwall mining of LW31 (see comments) Post - mining	Baal Bone Environment and Community Coordinator or nomination	Weekly monitoring of two pinch point areas to be undertaken when approaching LW face is 100m from pinch point cross line; to be continued until retreating LW face is 200m past pinch point cross line and then fortnightly until face is 600m past or at end of panel (as applicable).	Sighted in EOP Reports	Compliant
			Photographic	Surface cracking Rock fall	If changes noted during visual inspection and as required by TARP	Baal Bone Environment and Community Coordinator or nomination			
			Photographic (oblique aerial)	Overall condition and stability of escarpment	Pre-mining End of each panel Post-mining	Baal Bone Environment and Community Coordinator or nomination	Oblique aerial photo run taken from above Wolgan Valley by Skycam Australia.		
			Survey and stress cell monitoring		Pre-mining During mining Post-mining	Baal Bone Environment and Community Coordinator, and mine surveyor	Refer to <u>Subsidence Monitoring Program</u> for detail.		

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7. MANAGEMENT OF IMPACTS																															
7	Results from the inspection and monitoring schedule detailed above are to be reported to Baal Bone immediately following each inspection. The appropriate level of management action or response will then be initiated, where necessary, in accordance with the Trigger Action Response Plan (TARP);	Noted by the auditors, TARP triggered for the cracks above LW31	Compliant																												
7	In the case of a minor impact or irregular result, Baal Bone will liaise directly with the landholder (Forests NSW and/or Department of Lands), and an expert consultant if deemed necessary, to determine the most suitable and mutually agreeable course of action.	Complaint received regarding the landslip event in 2012 followed an investigation ultimately deciding that the mine was not the cause.	Compliant																												

Reference	Requirement	Evidence	Audit Finding
Subsidence Management Plan LW 29-31 - Land Management Plan (Revision June 2009)			
7	In instances where an increased irregular result has been noted or where a major impact has occurred, Baal Bone will immediately convene a site inspection and meeting with the landholder(s), any other Agency with a regulatory role and a recognised expert consultant to determine the most appropriate course of action.	Complaint received regarding the landslip event in 2012 followed an investigation ultimately deciding that the mine was not the cause.	Compliant
8. REPORTING AND ACCESS TO INFORMATION			
8	All monitoring programs contain an element of visual inspection. An integral part of these programs is the reporting of any impacts, including cracking, soil erosion, soil slumping or land degradation, to the Environmental and Community Coordinator.	Sighted in the monitoring reports. Noted by the auditors	Compliant
8	The information is then reviewed and consideration given to the appropriate remediation / rehabilitation and timing of such actions in relation to the mining program as noted in the TARP.	Notification given on 25 January 2012 regarding cracking. Noted by the auditors	Compliant
8	Consultation, incident and ongoing management reporting will be undertaken in accordance with the requirements of:	Noted	
	• The Trigger Action Response Plan (Appendix A),	Noted by the auditors	Compliant
	• The Monitoring and management Flow Chart (Appendix B),	Noted by the auditors	Compliant
	• Conditions 18, 19, 20 and 21 of the SMP Approval (Appendix C), and	Noted by the auditors	Compliant
8	• LW 29-31 Subsidence Community Consultation Process document (Plan No. SMP 29-31-3)	Noted by the auditors	Compliant
8	Essentially, these require a summary of monitoring results, anomalies, incidents, management actions and responses to be provided to stakeholders in a Four Monthly Subsidence Management Status Report (Condition 19) and again in an End of Panel Report (Condition 20).	Noted by the auditors	Compliant
8	Relevant stakeholders will also be notified within a specified time period in compliance with the requirements of both the Trigger Action and Response Plan, and of Condition 18 of the SMP Approval. Specific written incident reports may also be prepared to satisfy the requirements of Condition 18.	Notification given on 25 January 2012 regarding cracking.	Compliant
8	An annual summary will also be included and distributed in Baal Bone's Annual Environmental Management report (AEMR).	2012 AEMR includes survey result, Wolgan Escarpment protection and cracking updates for LW31 and 30.	Compliant

Reference	Requirement	Evidence	Audit Finding
Subsidence Management Plan LW 29-31 - Land Management Plan (Revision June 2009)			
9. REVIEW			
9	This plan will be reviewed as necessary including:	Noted	
	• in the event that government agencies raise issues that necessitate a review;	Not in the audit period	Not triggered
	• there are changes in the monitoring program, such as changes in the number of monitoring installations or changes in the monitoring frequency;	Not in the audit period	Not triggered
	• unexpected anomalous conditions arise, and the response to these conditions indicates that a review of the program is required; or	Anomalous conditions arose however did not require a change to the management plan.	Not triggered
	• ongoing monitoring demonstrates that subsidence effects are such that a review is warranted. Any review of this document will be undertaken in consultation with the Department of Primary Industries – Mineral Resources and relevant stakeholders in accordance with the Conditions of the SMP Approval. In the event this document is revised, a copy will be sent to the relevant agencies as required by Condition 21.	Not in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
Underground Water Make Monitoring Program (2007)			
2. RESPONSIBILITIES AND RESOURCES			
2	Baal Bone's Production Manager is responsible for the implementation of this plan.	Noted	Compliant
2	Baal Bone's Manager Mining Engineering is responsible for ensuring that sufficient resources are available to implement the requirements of this Plan.	Noted	Compliant
3. SUBMISSION			
3	This program is submitted to the Director Environmental Sustainability for approval as part of the SMP application.	Not in the audit period, SMP approved	Compliant
4. BACKGROUND			
4	This Underground Water Make Monitoring Program includes the monitoring of:	Noted	
	• Pumping rates and quantities from all underground pump lines,	Included in WMMP	Compliant
	• Water flow returns into the mine from surface supplies,	Included in WMMP	Compliant
	• Water levels within the main underground sump	Included in WMMP	Compliant
6. MONITORING SCHEDULE			
6.1 Underground Mine Water Monitoring Program			
6.1.3	Pump flows are monitored by flow meters located at each monitoring site with some continuously monitored and the others requiring visual reading.	Noted, records sighted.	Compliant
6.1.3	The South sump is monitored by a pressure gauge located on a standpipe at a known level. This is also subject to a visual reading.	Redundant due to cessation of mining	Not triggered
6.1.3	Monitoring methods consist of readings, on a weekly basis, and downloads, on a monthly basis, of information by mine personnel.	Redundant due to cessation of mining	Not triggered

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6.1.4	Inspection results are to be reported on a monthly basis, including weekly analysis.	Noted - Water Balance	Compliant																												
6.1.4	Results from each monitoring location (1 to 5 inclusive) will provide a quantity of water either pumped from or into the mine.	Noted - Water Balance	Compliant																												
6.1.4	Pumping of the north sump to a pre-determined level and then measuring of the water level in the south sump via the pressure gauge located at 51 cut through (6) will enable a calculation of total sump capacity on a weekly basis.	Noted - Water Balance	Compliant																												
6.1.4	The difference between weekly sump capacities or levels and the total quantity of water pumped into and out of the mine will provide a reasonable estimation of water make during any given week.	Noted - Generally Redundant due to cessation of mining	Not triggered																												
6.1.4	As stated above the sump quantities at any given reduced level cannot be measured to a high accuracy due to inability to access the previously mined areas and roof falls as a result of coal extraction, but over a period of time with rises and falls of water levels, accurate comparisons between pumping quantities and water make to particular sump levels will be obtained.	Noted - Generally Redundant due to cessation of mining	Not triggered																												
7. REPORTING																															
7	Results of monitoring are to be reported monthly, including weekly analysis, to the Manager Mining Engineering with summaries and balances on monthly periods included in the both the four monthly Subsidence Management Status Reports and the Annual Environmental Management Report.	Noted - Water Balance	Compliant																												

Reference	Requirement	Evidence	Audit Finding
Underground Water Make Monitoring Program (2007)			
8. REVIEW			
8	This plan will be reviewed as necessary including:	Noted	
	• Monitoring demonstrates that the results are such that a review is warranted.	Not in the audit period	Not triggered
	• Annually	Annual review documented in the revision section of the document.	Compliant
	In the event of the monitoring program being changed a copy will be sent to the relevant agencies.	Not in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
LW29-31 Public Safety Management Plan (May 2009)			
2. RESPONSIBILITIES AND RESOURCES			
2	Baal Bone's Environment and Community Coordinator is responsible for monitoring the implementation of this plan.	Noted	
2	Baal Bone's Operations Manager is responsible for ensuring that sufficient resources are available to implement the requirements of this Plan.	Noted	
3. SUBMISSION			
3	This plan is submitted to the Director Mine Safety Operations for approval.	Submitted as part of the SMP process to DTIRIS DRE Minerals.	Compliant
6. IDENTIFICATION OF RISKS			
6	The possible Public Safety risks are listed below with a summary of the Risk Assessment results relating to surface features attached as Appendix B.	Not in the audit period.	Not Triggered
	• Damage (cracking) to roads / trails;	Not in the audit period.	Not Triggered
	• Damage (cracking) to general surface;	Not in the audit period.	Not Triggered
	• Falls or instability of trees; and	Not in the audit period.	Not Triggered
	• Destabilisation (cracking) of rock masses / faces and / or steep slopes	Not in the audit period.	Not Triggered
	• Controls, monitoring and remedial actions identified as core items have been addressed in this Management Plan including,	Not in the audit period.	Not Triggered
	• Regular monitoring of areas of features posing potential safety risks – monitoring introduced though no high risk areas identified.	Not in the audit period.	Not Triggered
	• Erection of warning signs – to be installed prior to commencement of longwall mining.	Not in the audit period.	Not Triggered
	• Entry restrictions – identified as part of management actions and remedial measures if Public Safety Risk identified.	Not in the audit period.	Not Triggered
	• Backfilling of dangerous surface cracks – noted as remedial measure if identified.	Observed by the auditors over LW31	Compliant
• Securing of unstable rockmass where required and appropriate – noted as field inspection and remedial measure (if required) after identification.	Not in the audit period.	Not Triggered	
• Provision of timely notification of mining progress to the community and any other stakeholders where management of Public Safety is required – noted as part of management actions.	Not in the audit period.	Not Triggered	
7. NOTIFICATION, MONITORING AND INSPECTION SCHEDULE			
7	Management of Public Safety is largely controlled by programmed and targeted inspection as well as reviewing predicted subsidence against actual subsidence.	End of Panel and Status Reports were reviewed by the auditors.	Compliant

Reference	Requirement	Evidence	Audit Finding
LW29-31 Public Safety Management Plan (May 2009)			
7.1 Notification			
7.1	Notifications to Forests NSW (as landholder), the general public, relevant stakeholders and appropriate authorities has been or will be provided. These include.	Not in the audit period.	Not Triggered
	• Newspaper advertisements relating to the SMP Application and any Approval.	Not in the audit period.	Not Triggered
	• Notification of the commencement and completion of mining.	Not in the audit period.	Not Triggered
7.2 Subsidence Monitoring			
7.2	Monitoring is conducted as per the various Management Plans and Programs submitted, consisting of a combination of subsidence surveys, inspections and monitoring of surface features and various ecological conditions.	Noted, see EOP reports	
7.3 Subsidence Inspections			
7.3	Inspection is conducted as per the various Management Plans and Programs submitted, consisting of a combination of visual and photographic inspections as detailed in the Management Plans and Programs	Noted, see EOP reports	Compliant
7.4 Scope and Frequency of Inspections			
7.4	Regular inspections, at frequencies detailed in the Management Plans and Programs are to be initially concentrated on the current mining area (about 60 metres in advance and 200 metres behind the current longwall face position within the full subsidence area of 26.5 degrees angle of draw).	No mining in the audit period.	Not Triggered
	Inspections are concentrated on items identified in the initial pre-mining survey of each longwall panel. Frequency of inspections is reduced following the passage of each panel.	Ongoing inspections were being conducted on a scaled down frequency due to the cessation of mining. Evidence, the identification of the cracking over longwall 31 after the cessation of mining.	Compliant
7.4	Inspections are carried out by experienced persons and follow an inspection checklist to include the items noted above.	The inspections conducted concurrently with mining activities were not conducted within the audit period.	Not Triggered
7.4	At the completion of mining in each longwall panel a full surface inspection will be conducted and results included in an End of Panel Report.	The inspections conducted concurrently with mining activities were not conducted within the audit period.	Not Triggered

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<table border="1"> <thead> <tr> <th>Item</th> <th>Inspection / Monitoring Type</th> <th>Parameters Monitored / Risks</th> <th>Monitoring Frequency</th> <th>Responsibility</th> <th>Notes / Comments</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Watercourses & drainage lines</td> <td>Visual</td> <td>Bed cracking. Mining induced erosion (bed and banks) Bank slumping and/or mass movement. Other potential public safety issues (eg. unstable trees, other areas of potential instability).</td> <td>Weekly during longwall mining of relevant panel (see comments), or as amended by TARP. Periodically during or immediately after rainfall events exceeding 25mm in a single 24 hour period.</td> <td>Baal Bone Environment and Community Coordinator or nomination.</td> <td>Weekly monitoring is to commence when approaching LW face is 60m from watercourse and to be continued until retreating LW face is 200m past watercourse.</td> </tr> <tr> <td>Photographic</td> <td>Surface cracking. Mining induced erosion. Potential public safety issues.</td> <td>Pre-mining (see comments). If changes noted during visual inspection and as required by TARP.</td> <td>Baal Bone Environment and Community Coordinator or nomination.</td> <td>Location of baseline creek monitoring photopoints illustrated in Figure 2 of <u>Environmental Monitoring Program</u>.</td> </tr> </tbody> </table>	Item	Inspection / Monitoring Type	Parameters Monitored / Risks	Monitoring Frequency	Responsibility	Notes / Comments	Watercourses & drainage lines	Visual	Bed cracking. Mining induced erosion (bed and banks) Bank slumping and/or mass movement. Other potential public safety issues (eg. unstable trees, other areas of potential instability).	Weekly during longwall mining of relevant panel (see comments), or as amended by TARP. Periodically during or immediately after rainfall events exceeding 25mm in a single 24 hour period.	Baal Bone Environment and Community Coordinator or nomination.	Weekly monitoring is to commence when approaching LW face is 60m from watercourse and to be continued until retreating LW face is 200m past watercourse.	Photographic	Surface cracking. Mining induced erosion. Potential public safety issues.	Pre-mining (see comments). If changes noted during visual inspection and as required by TARP.	Baal Bone Environment and Community Coordinator or nomination.	Location of baseline creek monitoring photopoints illustrated in Figure 2 of <u>Environmental Monitoring Program</u> .	Monthly monitoring was occurring during the audit period.	Compliant											
Item	Inspection / Monitoring Type	Parameters Monitored / Risks	Monitoring Frequency	Responsibility	Notes / Comments																									
Watercourses & drainage lines	Visual	Bed cracking. Mining induced erosion (bed and banks) Bank slumping and/or mass movement. Other potential public safety issues (eg. unstable trees, other areas of potential instability).	Weekly during longwall mining of relevant panel (see comments), or as amended by TARP. Periodically during or immediately after rainfall events exceeding 25mm in a single 24 hour period.	Baal Bone Environment and Community Coordinator or nomination.	Weekly monitoring is to commence when approaching LW face is 60m from watercourse and to be continued until retreating LW face is 200m past watercourse.																									
	Photographic	Surface cracking. Mining induced erosion. Potential public safety issues.	Pre-mining (see comments). If changes noted during visual inspection and as required by TARP.	Baal Bone Environment and Community Coordinator or nomination.	Location of baseline creek monitoring photopoints illustrated in Figure 2 of <u>Environmental Monitoring Program</u> .																									

Reference	Requirement					Evidence	Audit Finding
LW29-31 Public Safety Management Plan (May 2009)							
	Item	Inspection / Monitoring Type	Parameters Monitored / Risks	Monitoring Frequency	Responsibility	Notes / Comments	Post mining inspection identified the cracking over LW31
	Other general surface areas	Visual	Surface cracking. Mass movement. Mining induced erosion. Potential public safety issues.	Pre-mining Weekly during longwall mining of relevant panel (see comments), or frequency as amended by TARP. Post-mining	Baal Bone Environment and Community Coordinator or nomination.	Weekly monitoring to be undertaken in area 60m in advance of, and 200m behind, retreating longwall face position.	
		Photographic	Surface cracking. Mining induced erosion. Potential public safety issues.	If changes noted during visual inspection and as required by TARP.	Baal Bone Environment and Community Coordinator or nomination.		
	Item	Inspection / Monitoring Type	Parameters Monitored / Risks	Monitoring Frequency	Responsibility	Notes / Comments	Not in the audit period.
	Aboriginal rock shelter (PAD) BBC-RS1	Visual	Potential public safety issues (condition and stability of overhang).	Weekly during longwall mining of LW30 (see comments).	Baal Bone Environment and Community Coordinator or nomination.	Weekly monitoring to commence when approaching LW face is 60m from site and to be continued until retreating LW face is 200m past site.	
		Photographic and video	Overall condition and stability of site.	Pre-mining of LW30. Post-mining of LW30.	Baal Bone Environment and Community Coordinator or nomination.		
		Survey monitoring	Vertical and horizontal movement.	Pre-mining of LW30. Post-mining of LW30.	Baal Bone Environment and Community Coordinator or nomination.	Refer to <u>Subsidence Monitoring Program</u> for detail.	
	A report will be completed following each inspection or survey, with results summarised in the Four Monthly Subsidence Management Status Report.					Four Monthly Subsidence Reports are compiled and ongoing	Compliant
8. ACTIONS AND REMEDIAL MEASURES							
8	Results from the inspection and monitoring schedule detailed above are to be reported to Baal Bone immediately following each inspection. The appropriate level of management action or response will then be initiated, where necessary, in accordance with the Trigger Action Response Plan (TARP);					End of Panel and Status Reports were reviewed by the auditors.	Compliant
8	Baal Bone will install appropriate signage, positioned along Forest NSW roads and tracks, prior to the commencement of longwall extraction, advising of the potential for subsidence impacts.					Observed on site	Compliant
8.1 Public Safety Issues Identified During Inspections or Monitoring							
	If these inspections reveal any Public Safety issue (refer Appendix A) that requires remedial works to ensure Public Safety the person conducting the inspection shall :					Noted	
	<ul style="list-style-type: none"> Immediately notify the Operations Manager and/or Environment and Community Coordinator of the findings. 					Only remediation issues with existing remediation works have occurred during the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
LW29-31 Public Safety Management Plan (May 2009)			
8.1	• Erect "NO ROAD" or barrier tape and warning signs if immediate remediation is not possible.	Only remediation issues with existing remediation works have occurred during the audit period	Not triggered
	• The Operations Manager shall immediately notify the District Inspector of Coal Mines and landholder.	Only remediation issues with existing remediation works have occurred during the audit period	Not triggered
8.2 Remediation of Public Safety Issues			
8.2	Following completion of the above the Operations Manager or his nominee shall:	Noted	
	• Arrange inspections of area at regular intervals including installation of appropriate barriers if required, until remediation works are carried out.	Viewed cracks during the site inspection that had been rehabilitated. Ongoing maintenance required. Evidence of taping off of impacted areas to warn of the danger, considered adequate for the risk by the audit team.	Compliant
	• Arrange for remediation works as detailed in Appendix A. This may require consultation with the landholder or infrastructure owner, Department of Primary Industries – Mineral Resources and possibly specialist consultants and appropriate stakeholder, as noted in current Management Plans and Programs, to prepare appropriate remediation plan relating to the particular item. Notification to the general public may form a part of the remediation plan.	Viewed cracks during the site inspection that had been rehabilitated. Ongoing maintenance required.	Compliant
9. REPORTING			
9	Results of subsidence surveys, visual inspections, photographic monitoring and effectiveness of management strategies are to be reported in the four monthly Subsidence Management Status reports, part of the Subsidence Community Consultation Process (SMP 29-31-3), and also the Annual Environmental Management Report.	End of Panel reports and the 2012 AEMR were reviewed by the auditors.	Compliant
	Additionally, notification will be provided to relevant Authorities of any occurrence requiring mitigation or remediation as detailed in the Triggers Actions and Management Responses.	Notifications to DoP were made regarding A1, A2 and A3, as seen by the auditors.	Compliant
10. REVIEW			
10	This plan will be reviewed as necessary including:	Noted	
	• In the event that the Director Mine Safety Operations or District Inspector of Coal Mines raise issues that necessitate a review;	No such review requested or triggered.	Not triggered
	• In the event that Forests NSW raise issues that necessitate a review;	No such review requested or triggered.	Not triggered

Reference	Requirement	Evidence	Audit Finding
LW29-31 Public Safety Management Plan (May 2009)			
	• Inspections or monitoring demonstrate that the impacts are such that a review is warranted and/or	No inspection or monitoring results suggested a revision within the audit period	Not triggered
	Any review will be conducted in consultation with the District Inspector of Coal Mines and Forests NSW. In the event of the management plan being changed a copy will be sent to the relevant agencies.	Noted	Not triggered

APPENDIX A - PUBLIC SAFETY TRIGGER ACTION RESPONSE PLAN

Monitoring Element / Method	Trigger / Response	Results within predicted / acceptable range	Irregular result / Minor impact	Increased irregular result / Major impact		
Surface cracking / erosion on forest roads & access tracks (by visual inspection)	Triggers	Surface cracking up to 100mm. No noticeable increase in erosion.	Surface cracking 100-200mm. Noticeable increase in level of recent rill erosion along track and/or table drains.	Surface cracking > 200mm. Perceived imminent threat to public safety from anomalous situation (ie. adjacent mass movement, rock instability).	Results presented in EOP reports	
	Notification	N/A	Appropriate parties under the SMP Approval Condition 18 (inc. Department of Lands on Bicentennial National Trail).	Interagency Committee and PSE. Other appropriate parties under the SMP Approval Condition 18 (inc. Department of Lands on Bicentennial National Trail).		
	Action / Response	Maintain warning signs. Continue to review and monitor cracks periodically to ensure they do not expand or create a public safety hazard.	Note GPS location and orientation of crack or erosion and photograph. Review public safety aspect. Maintain warning signs and erect additional signs in immediate area. Increase monitoring frequency to twice weekly until area has been satisfactorily remediated. Discuss / confirm appropriate level of action / remediation with Forests NSW and Department of Lands (on Bicentennial National Trail). Review subsidence predictions with expert consultant, review monitoring program and/or consult with PSE if required.	Note GPS location and orientation of crack or erosion and photograph. Review public safety aspect. Maintain warning signs and erect additional signs in immediate area including barricades and NO ROAD signs. Increase monitoring frequency to daily until area has been satisfactorily remediated and/or made safe. Site inspection with specialist soil conservationist, Forests NSW, Department of Lands (on Bicentennial National Trail) and other relevant Government Departments to discuss / confirm appropriate level of action / remediation. Undertake detailed review of subsidence predictions with expert consultant, review monitoring program and consult with PSE.		
Continued... Surface cracking / erosion on forest roads & access tracks	Mitigation / Remediation	Repair by grading, excavation and fill, or by concrete grout if required for erosion control.	Repair cracks by excavation, fill and/or grading, concrete or grout, and install drainage structures if required, in program approved by appropriate authorities. Review mine plan in consultation with appropriate consultant and PSE.	Repair cracks by excavation, fill, and/or grading, concrete or grout, and install drainage structures if required, following consultation with appropriate authorities and specialist consultants. Review mine plan in consultation with appropriate consultant and PSE.	Results presented in EOP reports	
Surface cracking / rock falls on surface pagoda rock formations* (by visual inspection)	Triggers	Surface cracking up to 100mm on flat, horizontal shelf rock associated with northern end of pagoda formations within 26.5 degree AOD. No observable surface cracking on vertical surfaces associated with southern end of pagoda formations within 26.5 degree AOD. No areas of visible instability or threat to public safety. No areas of rock fall.	Surface cracking 100-200mm on flat, horizontal shelf rock associated with northern end of pagoda formations within AOD. Surface cracking up to 25mm on vertical surfaces associated with southern end of pagoda formations within AOD. Visible instability with potential threat to public safety. No areas of rock fall.	Surface cracking > 200mm on flat, horizontal shelf rock associated with northern end of pagoda formations within AOD. Surface cracking > 25mm on vertical surfaces associated with southern end of pagoda formations within AOD. Visible instability with imminent threat to public safety. Rock fall.	Results presented in EOP reports	
	Notification	N/A	Appropriate parties under the SMP Approval Condition 18.	Interagency Committee and PSE. Other appropriate parties under the SMP Approval Condition 18.		

Reference	Requirement				Evidence	Audit Finding	
LW29-31 Public Safety Management Plan (May 2009)							
Appendix A	Continued... Surface cracking / rock falls on surface pagoda rock formations	Action / Response	Maintain warning signs. Continue to review and monitor cracks periodically to ensure they do not expand or create a public safety hazard.	Note GPS location and orientation of crack and/or rock fall and photograph. Review public safety aspect. Maintain warning signs and erect additional signs and/or barrier tape in immediate area. Increase monitoring frequency to twice weekly until area has been satisfactorily remediated and/or made safe. Discuss / confirm appropriate level of action / remediation with Forests NSW (as landholder) and any other relevant Government Department. Review subsidence predictions with expert consultant, review monitoring program and/or consult with PSE if required.	Note GPS location and orientation of crack and/or rock fall and photograph. Review public safety aspect. Maintain warning signs and erect additional signs and/or barrier tape in immediate area. Increase monitoring frequency to daily until area has been satisfactorily remediated and/or made safe. Site inspection with expert structural and/or geotechnical engineer, Forests NSW and other relevant Government Departments to discuss / confirm appropriate level of action / remediation. Undertake detailed review of subsidence predictions with expert consultant, review monitoring program and consult with PSE.	Results presented in EOP reports	
		Mitigation / Remediation	NA	Repair cracks with a sand / cement, bottom ash grout or equivalent and installation of erosion controls and surface / sub-surface slope drainage systems in program approved by appropriate authorities. Review mine plan in consultation with appropriate consultant and PSE.	Repair cracks with a sand / cement, bottom ash grout or equivalent and installation of erosion controls and surface / sub-surface slope drainage systems following consultation with appropriate authorities and specialist consultants. Prop, pin, bolt and/or otherwise support / stabilise unstable areas in accordance with advice from engineer. Review mine plan in consultation with appropriate consultant and PSE.		
	Monitoring Element / Method	Trigger / Response	Results within predicted / acceptable range	Irregular result / Minor impact	Increased irregular result / Major impact	Results presented in EOP reports	
Wolgan Escarpment (by visual inspections only)	Triggers	No observable surface cracking in area between 100m from goaf edge (which is < 26.5 degrees AOD) and edge of escarpment. No areas of observable damage or instability. No evidence of rockfalls.	Any damage to the Wolgan Escarpment will be considered a major impact.	Visible surface cracking of any size in area between 100m to goaf edge and edge of escarpment. Areas of observable damage or instability. Evidence of recent rockfall.			
	Notification	NA		Interagency Committee and PSE. Other appropriate parties under the SMP Approval Condition 18.			
Continued... Wolgan Escarpment	Mitigation / Remediation	NA		Prepare for immediate suspension of longwall mining operations. Note GPS location and orientation of anomaly and photograph. Review public safety aspect. Maintain warning signs and erect additional signs and/or barrier tape in immediate area. Increase monitoring frequency to daily until area has been satisfactorily made safe. Site inspection with expert geotechnical engineer, Forests NSW and other relevant Government Departments to discuss / confirm appropriate level of action / remediation. Undertake detailed review of subsidence predictions with expert consultant, review monitoring program and consult with PSE.	Results presented in EOP reports		

Reference	Requirement				Evidence	Audit Finding	
LW29-31 Public Safety Management Plan (May 2009)							
	<p>Monitoring Element / Method</p> <p>Surface cracking, mass movement, mining induced erosion in other general surface areas (by visual inspection)</p>	<p>Trigger / Response</p> <p>Triggers</p> <p>Notification</p> <p>Action / Response</p>	<p>Results within predicted / acceptable range</p> <p>Surface cracking < 100mm. No evidence of mass movement or slumping. No evidence of accelerated rill or gully erosion.</p> <p>N/A</p> <p>Maintain warning signs. Continue to review and monitor cracks periodically to ensure they do not expand or create a public safety hazard.</p>	<p>Irregular result / Minor impact</p> <p>Surface cracking 100-200mm. Some minor areas of mass movement or slumping can be observed (<100m²). Surface rilling to a depth < 300mm.</p> <p>Appropriate parties under the SMP Approval Condition 18.</p> <p>Note GPS location and orientation of anomaly and photograph. Review public safety aspect. Maintain warning signs and erect additional signs and/or barrier tape in immediate area. Increase monitoring frequency to twice weekly until area has been satisfactorily remediated and/or made safe. Discuss / confirm appropriate level of action / remediation with Forests NSW and other relevant Government Departments (e.g. DWE & SCA re watercourses or drainage lines). Review subsidence predictions with expert consultant, review monitoring program and/or consult with PSE if required.</p>	<p>Increased irregular result / Major impact</p> <p>Surface cracking > 200mm. Large areas of mass movement or slumping identified (>100m²). Surface rilling and/or gulying to a depth > 300mm.</p> <p>Interagency Committee and PSE. Other appropriate parties under the SMP Approval Condition 18.</p> <p>Note GPS location and orientation of anomaly and photograph. Review public safety aspect. Maintain warning signs and erect additional signs in immediate area including barricade and NO ROAD signs. Increase monitoring to daily until area has been satisfactorily remediated and/or made safe. Site inspection with specialist soil conservationist, Forests NSW, Department of Lands (on Bicentennial National Trail) and other relevant Government Departments to discuss / confirm appropriate level of action / remediation. Undertake detailed review of subsidence predictions with expert consultant, review monitoring program and consult with PSE.</p>	Results presented in EOP reports	
	<p>Continued... Surface cracking, mass movement, mining induced erosion in other general surface areas</p>	<p>Mitigation / Remediation</p>	<p>Repair cracks with a sand / cement, bottom ash grout or equivalent if required for aesthetic reasons.</p>	<p>Repair cracks by excavation, fill and/or grading, concrete or grout, and install drainage structures if required, in program approved by appropriate authorities. Review mine plan in consultation with appropriate consultant and PSE.</p>	<p>Repair cracks by excavation, fill, and/or grading, concrete or grout, and install drainage structures if required, following consultation with appropriate authorities and specialist consultants. Review mine plan in consultation with appropriate consultant and PSE.</p>	Results presented in EOP reports	
	<p>Monitoring Element / Method</p> <p>Surface cracking / rock falls in Aboriginal rock shelter (BBC-RS1) (by visual inspection)</p>	<p>Trigger / Response</p> <p>Triggers</p> <p>Notification</p> <p>Action / Response</p> <p>Mitigation / Remediation</p>	<p>Results within predicted / acceptable range</p> <p>No areas of visible instability or threat to public safety. No areas of roof fall.</p> <p>N/A</p> <p>Review public safety aspects. Continue programmed monitoring</p> <p>N/A</p>	<p>Irregular result / Minor impact</p> <p>Minor cracking (<50mm) and/or widening of existing joints. Visible instability with potential threat to public safety. No areas of roof fall.</p> <p>Aboriginal groups and DECC Regional Archaeologist in accordance with Ozark 2008. Other appropriate parties under the SMP Approval Condition 18.</p> <p>Note GPS location and orientation of anomaly (if applicable) and photograph. Review public safety aspects. Erect warning signs and barrier fencing if required. Increase monitoring frequency to twice weekly until area has been made safe. Meeting with Aboriginal Heritage Working Group and appropriate consultant to review results and to discuss options for ongoing management of the site in a culturally appropriate manner.</p> <p>Initiate management procedures and/or remedial / stabilisation works if required following meeting with AHWG.</p>	<p>Increased irregular result / Major impact</p> <p>Cracking or joint widening >50mm Visible instability with imminent threat to public safety. Observed areas of roof fall.</p> <p>Aboriginal groups and DECC Regional Archaeologist in accordance with Ozark 2008. Interagency Committee, PSE and other appropriate parties under the SMP Approval Condition 18.</p> <p>Note GPS location and orientation of anomaly (if applicable) and photograph. Review public safety aspects. Erect warning signs and barrier fencing. Increase monitoring frequency to daily until area has been satisfactorily made safe. Site inspection with expert structural and/or geotechnical engineer, Forests NSW and Aboriginal Heritage Working Group (inc DECC) to discuss / confirm appropriate level of action / remediation in a culturally appropriate manner. Initiate management procedures and/or remedial / stabilisation works if required following meeting with AHWG.</p>	Results presented in EOP reports	

Reference	Requirement	Evidence	Audit Finding
Wolgan Escarpment Management Plan (2008)			
4. BASIS FOR ADDITIONAL PROTECTION			
4	Full protection of the escarpments against rock falls is not possible because rock falls occur naturally from time to time and may occur at any time irrespective of any mining activity. However, it is appropriate in a circumstance of high visual significance to be able to demonstrate that any rock falls that may occur coincidentally are not a result of mining subsidence.	Wolgan Valley Rockfall, investigation determined not due to mining activity	Compliant
6. MONITORING STRATEGY			
6.1 Subsidence Monitoring			
6.1	At the finish end of Longwall 29, a subsidence line perpendicular to the escarpment is recommended.	Not in the audit period	
	The barrier in this area is sufficient to fully protect the escarpment so the monitoring frequency does not have to be intense.	Not in the audit period	
	A survey when the longwall panel is 50m out, 20m out and finished would be expected to provide confirmation that no movements are occurring at the escarpment.	Survey was conducted in May 2012.	Compliant
	If there is any indication of unusual movement, the frequency should be increased accordingly.	Not in the audit period	Not triggered
6.1	At the southern pinch point, a short cross line perpendicular to the gate road passing through the pinch point and a second line parallel to the gate road and located midway between the goaf edge and the Wolgan Escarpment are recommended.	This was completed, noted in review of EOP reports	Compliant
	At the northern pinch point, the main cross line across all the panels and a second short line parallel to the gate roads located midway between the goaf edge and the Wolgan Escarpment are recommended.	This was completed, noted in review of EOP reports	Compliant
6.1	It is recommended that pegs are spaced approximately 10m apart and located in three dimensions.	This was completed, noted in review of EOP reports	Compliant
	An array of semi-permanent glass prisms located at approximately 20m along the edge of the escarpment and able to be surveyed from the longitudinal lines without need to approach the edge of the escarpment are recommended to provide greater detail of movement on the escarpment itself.	This was completed, noted in review of EOP reports	Compliant
6.1	The frequency of monitoring can be based on longwall geometry. A recommended frequency involving a survey conducted approximately every 30m of longwall retreat during the period from when the longwall face is 60m from the line until the longwall face is 200m past would provide confirmation that subsidence movements are developing at a steady rate.	This was completed, noted in review of EOP reports	Compliant
	A final survey should be conducted once the longwall face is 600m past or has finished. If there is any indication of unexpected movement, the frequency of surveying should be increased accordingly.	This was completed, noted in review of EOP reports	Compliant

Reference	Requirement	Evidence	Audit Finding
Wolgan Escarpment Management Plan (2008)			
6.2 Stress Change Monitoring			
6.2	A program of stress change monitoring is recommended at both pinch points, with stress change monitoring instruments located as close as practical to the Wolgan Escarpment.	Ongoing monitoring has occurred throughout the audit period.	Compliant
6.2	Recognising the limitations of drilling and not wanting to introduce water into joints that might affect the stability of the cliff formation, we recommend that the instruments are installed at a convenient distance back from the edge of the sheer cliff of at least 20m.	This is the manner in which the monitoring points were installed, site inspection and EOP reports	Compliant
6.2	Ideally the instruments would be installed approximately halfway down cliff forming sandstone and would be monitored as Longwalls 29, 30 and 31 are mined.	This is the manner in which the monitoring points were installed, site inspection and EOP reports	Compliant
6.2	The aim of the stress monitoring would be to show that horizontal stress changes induced by mining parallel to the longwall goaf edge are much smaller than thermal stress changes that occur naturally in a diurnal or seasonal cycle.	This is the manner in which the monitoring points were installed, site inspection and EOP reports	Compliant
	To measure the natural diurnal and seasonal changes, an array of temperature measuring sensor is recommended.	This is the manner in which the monitoring points were installed, site inspection and EOP reports	Compliant
	These instruments would not be installed in a shallow hole in a sandstone outcrop, not necessarily on the escarpment itself but in a similar environment nearby, to measure a thermal profile and variations in it, against which the stress changes monitored within the cliff forming sandstones could be compared.	This is the manner in which the monitoring points were installed, site inspection and EOP reports	Compliant
6.3 Detailed Assessment of Cliff Stability at Northern Pinch Point			
6.3	A detailed assessment of the cliff stability at the northern pinch point could be undertaken, but a higher level of site characterisation would be required.	Noted	Not triggered
	The characterisation would involve measurement of the cliff geometry using a terrestrial photogrammetry system called Sirovision, measurement of the in situ stresses in the cliff forming sandstone which could be undertaken as part of the stress monitoring installation, and laboratory testing of the cliff forming sandstone strata.	Not conducted - Noted	Not triggered
	An analysis would be undertaken to determine the potential for overall stability given the 8m undercut and the potential for joint bounded rock falls based on the observation that previous rock falls at the site appear to be a result of cantilevered rock units becoming detached.	Not conducted - Noted	Not triggered
	This detailed analysis of the cliff stability is not necessarily at the southern pinch point because the rock formations have been visually assessed already and found to be stable.	Noted	
6.3	Detailed analysis of the northern pinch point would provide a basis for interpreting any stress changes that may be observed in the monitoring, but it is unlikely to indicate other than that the cliff formations at the northern pinch point are in a state of imminent instability.	Noted by the auditors	

Reference	Requirement	Evidence	Audit Finding
Subsidence Monitoring Program (SMP LW29-31) (2009)			
Table 1 Subsidence Survey and data Monitoring Methods, Parameters and Frequencies			

Subsidence Line / Monitoring Location	Purpose / Parameters to be measured	Survey Stations / Monitoring Methods	Station Spacing	Monitoring Frequency	Survey Standard	Responsibility
Table 1. Subsidence Survey and Data Monitoring Methods, Parameters and Frequencies						
Longwalls 29-31 Cross Line						
Longwall 29-31 cross line (Line E)	- Subsidence movements in three dimensions - Tilt and strain - Angle of draw	Star pickets driven to refusal or pins in rock.	Generally 10 metres	- Pre and post mining LW 29. - 50m after LW 30 undermining - Post LW 30 - 50m after LW 31 undermining - Post LW 31	Standard A	Baal Bone mine surveyor
Longwall 29						
Longwall 29 start line (Line F)	- Subsidence movements in three dimensions - Tilt and strain - Angle of draw	Star pickets driven to refusal or pins in rock.	Generally 10 metres	- Pre mining LW 29 - After mining 100m of LW 29 - After mining 140m of LW 29 - After mining 200m of LW 29 - At completion of LW29	Standard A	Baal Bone mine surveyor
Longwall 29 finish line (Line G)	- Subsidence movements in three dimensions - Tilt and strain - Angle of draw	Star pickets driven to refusal or pins/marks in feature	Generally 10 metres	- Pre mining LW 29 - 50m prior to LW 29 finish - 20m prior to LW 29 finish - Post LW 29	Standard A	Baal Bone mine surveyor
Wolgan Escarpment Southern Pinch Point (LW31)						
Wolgan Escarpment southern subsidence lines (Line H & Line I)	- Subsidence movements in three dimensions - Tilt and strain - Angle of draw	Star pickets driven to refusal or pins/marks in feature	Generally 10 metres	- Pre mining. - Post LW 29 - Post LW 30 - LW 31 every 30m from start until LW face is 210m past line intersection - Fortnightly until 600m past - Post LW 31	Standard A	Baal Bone mine surveyor
Wolgan Escarpment southern "pinch point" array	- Subsidence movements in three dimensions	Reflectors or prisms attached to rock	Generally 20 metres	- Pre mining. - Post LW 29 - Post LW 30 - LW 31 every 30m from start until LW face is 210m past line intersection - Fortnightly until 600m past - Post LW 31	Standard B	Baal Bone mine surveyor
Wolgan Escarpment southern stress cell	- Horizontal stress changes - Thermal measurements	- Stress change monitoring cell and data logger - Temperature measuring sensor	N/A	- Pre mining - End of panel LW 29 - End of panel LW 30 - Download and analyse data twice weekly from LW 31 start until LW face is 200m past cell. - Download and analyse data fortnightly from 200m to 600m past cell	N/A	

Table 1

Conducted - see EOPs

Compliant

Not in the audit period

Not triggered

Conducted - see EOPs

Compliant

Reference	Requirement						Evidence	Audit Finding	
Subsidence Monitoring Program (SMP LW29-31) (2009)									
	Wolgan Escarpment Northern Pinch Point (LW31)								
	Wolgan Escarpment northern subsidence line (Line J) and the section of Line E between the centreline of LW31 and the Wolgan Escarpment	- Subsidence movements in three dimensions - Tilt and strain - Angle of draw	Star pickets driven to refusal or pins/marks in feature	Generally 10 metres	- Pre mining. - Post LW 29 - Post LW 30 - LW 31 every 50m from LW between 300m to 100m before line intersection - Every 30m from LW between 100m before until 210m past. - Fortnightly until 600m past or end of panel - Post LW 31	Standard A	Baal Bone mine surveyor	Conducted - see EOPs	Compliant
	Wolgan Escarpment northern "pinch point" array	- Subsidence movements in three dimensions	Reflectors or prisms attached to rock	Generally 20 metres	- Pre mining. - Post LW 29 - Post LW 30 - LW 31 every 50m from LW between 300m to 100m before line intersection - Every 30m from LW between 100m before until 210m past. - Fortnightly until 600m past or end of panel - Post LW 31	Standard B	Baal Bone mine surveyor		
	Wolgan Escarpment northern stress cell	- Horizontal stress changes - Thermal measurements	- Stress change monitoring cell and data logger - Temperature measuring sensor	N/A	- Pre mining - End of panel LW 29 - End of panel LW 30 - Download and analyse data twice weekly from LW 300m before until LW 200m past cell - Download and analyse data fortnightly from 200m to 600m past cell	N/A			
	Other Areas								
	Wolgan Gap Trigonometrical Station (LW31)	- Subsidence movements in three dimensions	Existing survey monument	N/A	- Pre mining - Post LW 31 - Six months post LW 31	Standard B (post processing high resolution GPS)	Baal Bone mine surveyor	Conducted - see EOPs	Compliant
	Potential rock shelter (LW30)	- Subsidence movements in three dimensions	Reflectors or prisms attached to top of rock formation & on collapsed material on floor (refer Ozark 2008)	Random	- Pre mining LW 30 - When LW face is > 200m past site	Standard B	Baal Bone mine surveyor		

Reference	Requirement	Evidence	Audit Finding																												
Environmental Monitoring Program (SMP LW29-31) (2009)																															
6. MONITORING SCHEDULE																															
6.3 Flora																															
6.3.1	<p>Table 2. Vegetation Survey Quadrat Sites</p> <table border="1"> <thead> <tr> <th>Site</th> <th>Location</th> <th>Easting</th> <th>Northing</th> </tr> </thead> <tbody> <tr> <td>BB05</td> <td>Along stream; coincided with Creek Fauna monitoring site</td> <td>230498</td> <td>6312033</td> </tr> <tr> <td>BB06</td> <td>Sheltered slope near crest over Longwall 31; north of Woodland 2 Fauna site</td> <td>230623</td> <td>6313227</td> </tr> <tr> <td>BB07</td> <td>Ridge crest at Fauna site Woodland 1</td> <td>230123</td> <td>6312953</td> </tr> <tr> <td>BB08</td> <td>Lower slope near drainage depression over Longwall 29</td> <td>230082</td> <td>6313422</td> </tr> <tr> <td>BB09</td> <td>Coxs River Swamp close to junction with stream flowing from southern edge of SMP area</td> <td>229607</td> <td>6311540</td> </tr> <tr> <td>BB010</td> <td>Coxs River swamp downstream from BB09</td> <td>229649</td> <td>6311373</td> </tr> </tbody> </table>	Site	Location	Easting	Northing	BB05	Along stream; coincided with Creek Fauna monitoring site	230498	6312033	BB06	Sheltered slope near crest over Longwall 31; north of Woodland 2 Fauna site	230623	6313227	BB07	Ridge crest at Fauna site Woodland 1	230123	6312953	BB08	Lower slope near drainage depression over Longwall 29	230082	6313422	BB09	Coxs River Swamp close to junction with stream flowing from southern edge of SMP area	229607	6311540	BB010	Coxs River swamp downstream from BB09	229649	6311373	Noted, reported in EOP reports	Compliant
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6.3.2	Monitoring will be carried out by way of manual inspection of each 400m2 quadrat.	Not in the audit period	Not triggered																												
6.3.2	Species identified will be recorded and the data analysed. Photographs of each quadrat will also be taken during each monitoring period. Inspections will be carried out by a qualified, experienced and recognised flora consultant.	Not in the audit period	Not triggered																												
6.3.2	Monitoring is undertaken on a biannual basis, in autumn and spring.	Not in the audit period	Not triggered																												
6.3.3	Data will be analysed by the specialist consultant. Reports will be generated by the consultant and results compared to previous monitoring periods. A comparative summary will also be provided by the consultant. If threatened species are located/reported within the quadrats, specific monitoring for each species will be conducted during subsequent surveys.	Not in the audit period	Not triggered																												
6.3.3	The appropriate level of management action or response will then be initiated, where necessary, in accordance with the Trigger Action Response Plan (TARP) and the Monitoring and Management Flow Chart	Not in the audit period	Not triggered																												
6.3.4	Photographic monitoring points have been established at the location of the two groundwater monitoring piezometers at the Coxs River Swamp to the west of the proposed mining area (BBP5 and BBP6).	Not in the audit period	Not triggered																												
	Baseline photographic monitoring of the Swamp at these points has been undertaken prior to the commencement of development mining in the area (September 2007) and will continue until the cessation of mining.	Not in the audit period	Not triggered																												

Reference	Requirement	Evidence	Audit Finding
Environmental Monitoring Program (SMP LW29-31) (2009)			
6.3.5	Photographic monitoring of the condition of the Swamp will be undertaken four times per year. Monitoring techniques will follow the recommendations as published by NPWS (2003); the key points are presented below:	Not in the audit period	Not triggered
	1. Attempt to take photos on a bright but cloudy day. This allows a clearer picture of vegetation rather than getting confused in too many shadows	Not in the audit period	Not triggered
	2. Use a permanent marker point which will not change or be hidden. Baal Bone standard will be permanent tagging.	Not in the audit period	Not triggered
	3. Take a copy of the previous photo monitoring report during photographic inspections. This will assist in obtaining the same view (photographed area).	Not in the audit period	Not triggered
	4. Use the same camera at the same lens size and same settings	Not in the audit period	Not triggered
	5. Always record the date, time and location for every photograph	Not in the audit period	Not triggered
	6. Keep photo record sheets and field notes of every photograph	Not in the audit period	Not triggered
	7. Always check GPS co-ordinates	Not in the audit period	Not triggered
	8. Number every photograph taken, and relate these to every image number after downloading from the camera.	Not in the audit period	Not triggered
	9. Keep copies of all notes taken	Not in the audit period	Not triggered
	10. Keep backup copies of all photographs	Not in the audit period	Not triggered
6.3.6	At the end of each monitoring period, photographs from previous monitoring periods will be compared. Particular attention will be focused on seasonal variation, climatic data and groundwater monitoring data which will be used to assist in the analysis of the results.	Not in the audit period	Not triggered
6.3.6	The appropriate level of management action or response will then be initiated, where necessary, in accordance with the Trigger Action Response Plan (TARP) and the Monitoring and Management Flow Chart	Not in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding																				
Environmental Monitoring Program (SMP LW29-31) (2009)																							
6.4 Fauna																							
6.4.1	<p>Table 3. Fauna Survey Sites</p> <table border="1"> <thead> <tr> <th>Site</th> <th>Location</th> <th>Easting</th> <th>Northing</th> </tr> </thead> <tbody> <tr> <td>Woodland 1</td> <td>Northern section of Longwall 29</td> <td>230092</td> <td>6313026</td> </tr> <tr> <td>Woodland 2</td> <td>Mid panel Longwall 31</td> <td>230748</td> <td>6312655</td> </tr> <tr> <td>Creek</td> <td>Southern section Longwall 30</td> <td>230474</td> <td>6311985</td> </tr> <tr> <td>Coxs River Swamp</td> <td>Coxs River Swamp close to junction with stream flowing from southern edge of SMP area</td> <td>229607</td> <td>6311540</td> </tr> </tbody> </table>	Site	Location	Easting	Northing	Woodland 1	Northern section of Longwall 29	230092	6313026	Woodland 2	Mid panel Longwall 31	230748	6312655	Creek	Southern section Longwall 30	230474	6311985	Coxs River Swamp	Coxs River Swamp close to junction with stream flowing from southern edge of SMP area	229607	6311540	Not in the audit period	Not triggered
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6.4.2	Monitoring will be carried out by way of manually setting traps and/or inspections.	Not in the audit period	Not triggered																				
	Trapped animals will be released within 24 hours of being trapped. Species identified will be recorded and the data analysed. Inspections will be carried out by a qualified, experienced and recognised fauna consultant.	Not in the audit period	Not triggered																				
6.4.2	Three surveys per year will be conducted at appropriate times, early autumn (best for mammals and reptiles), spring (best for birds) and a short survey in late summer (for threatened reptiles, frogs and invertebrates).	Not in the audit period	Not triggered																				
6.4.3	Data will be analysed and reports generated by the specialist consultant and provided to Baal Bone who will compare results to previous monitoring periods. A comparative summary will also be provided by the consultant. If threatened species are located/reported specific monitoring for each species will be conducted during subsequent surveys.	Not in the audit period	Not triggered																				
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Reference	Requirement	Evidence	Audit Finding
Water Management Plan (July 2012)			
1. COMMITMENT AND POLICY			
1.4 Related Documents			
1.4	Documents within the Baal Bone Colliery Environmental Management System that relate to, or provide support to the WMP include: <input type="checkbox"/> Ben Bullen Creek Management Plan; <input type="checkbox"/> Erosion and Sediment Control Plan; <input type="checkbox"/> Surface Water Monitoring Plan; <input type="checkbox"/> Groundwater Monitoring Plan; <input type="checkbox"/> Surface Water and Groundwater Response Plan; <input type="checkbox"/> Baal Bone Colliery Mining Operations Plan (MOP); <input type="checkbox"/> Baal Bone Colliery Environmental Management Strategy; and <input type="checkbox"/> XCN Ground Disturbance Permit (XCN SD FORM 8.4.004).	All documents sighted except BBCMP and XCN GDP. BB are developing the first stages of the (Ben Bullen) MP. URS have been approved to develop the geotec, geomorp, and flood hydraulics.	Compliant
2. PLANNING			
2.4 Stakeholder Consultation			
2.4	As per Condition 16 of Schedule 3 of the Project Approval, the WMP is to be prepared in consultation with Office of Environment and Heritage (OEH) (formally Department of Environment, Climate Change and Water (DECCW)), NSW Office of Water (NOW), NSW Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS) (formally Department of Industry & Investment (I&I)) and the Department of Planning and Infrastructure (DP&I). The consultation process is to involve the submission of the document to OEH, NOW and DTIRIS concurrently with its submission to DP&I. As such, any comments provided following submission will be subsequently addressed in a revised document which will be re-submitted to DP&I.	Plan not finalised as yet	Not triggered
4. IMPLEMENTATION			
4.1 Water Management System Objectives			
4.1	In order to achieve these objectives, a number of surface water management controls have been implemented as part of the Baal Bone Colliery WMS, including mine dewatering systems, sediment dams, tailings dams, water storages, drains and earth bunding around stockpile area, hardstand areas and refuelling areas.	Noted by the auditors	
4.2 Clean Water System			
4.2	Clean water runoff is generally surface water flow from areas which have not been impacted by the mine and from rehabilitated areas. Where possible, runoff from undisturbed areas of the complex is diverted around disturbed areas using diversion drains. The diversion drains prevent the contamination of clean water by mining activities and minimise the inflow of clean water runoff into the pits.	Noted by the auditors and observed during site inspection	Compliant
4.2	Surface water flows from overburden emplacement areas including the southern and northern rehabilitation areas, are diverted to Ben Bullen Creek then transferred to the Overshot Dam prior to discharge. A weir on the Overshot Dam traps and detains water prior to discharge from the site (EPL Point 11). A discharge pipe and gate valve located at the weir can be opened to allow discharge.	Noted by the auditors and observed during site inspection	Compliant

Reference	Requirement	Evidence	Audit Finding
Water Management Plan (July 2012)			
4.3 Process Water System			
4.3	Mine water is captured on site, stored in water storages within the mine water management system and subsequently used on-site. The system also allows for the reuse and recycling of water throughout the operation. The process water system consists of: <ul style="list-style-type: none"> • groundwater inflows and outflows; • rainfall/runoff into mine pit; • runoff from coal haul roads; • tailings decant water; and • dirty water runoff from CHPP, pit top facilities, stockpiles and rail load out facilities 	Noted by the auditors, currently compliant however historically mine water (underground ground water make) discharged directly to Jews Creek	Compliant
4.3	A network of water transfer pipelines is used to transfer water across the Baal Bone Colliery site.	Noted by the auditors	
4.3	Runoff from within the process water system will be conveyed via sedimentation traps to the dirty water dam for treatment. The dirty water management system includes the CHPP, coal stockpile area and selected pit top areas.	Noted by the auditors and observed during site inspection	Compliant
4.3	Runoff water from the site will potentially contain sediment and needs to be managed accordingly. Runoff from disturbed areas and areas where rehabilitation is being established will be conveyed using catch drains to on-site water storage dams for treatment or diverted off site.	Noted by the auditors and observed during site inspection	Compliant
4.5 Water Discharges			
4.5	Baal Bone Colliery is required to monitor EPL Point 6 continuously during discharge.	Monitoring occurred continuously until July 2013 when it was relinquished.	Compliant
4.6 Raw Water			
4.6	Baal Bone Colliery holds water access licence WAL27887/80 which allows groundwater to be extracted for use on site, if required.	Noted by the auditors	
4.10 Site Water Balance			
4.10.5	An annual site water balance will be compiled based on site water management data collected in accordance with the requirements of the Project Approval. The annual site water balance will be used to demonstrate compliance with the requirements of the EPL and development consent conditions under which Baal Bone Colliery operates. Specific reporting outcomes from the annual site water balance include: <ul style="list-style-type: none"> • an estimate of the volume of rainfall runoff collected in each of the sub-catchment areas that make up the Baal Bone Colliery WMS; • mine dewatering from the northern and southern underground mining areas; • water discharged to Baal Bone Creek and Ben Bullen Creek; and • potable water usage. 	Noted by the auditors and sighted.	Compliant
4.10.6	The water balance will be reviewed annually as part of the Annual Review for the site (refer to Section 5.5.3). This will include a comparison of the performance against the predictions in the Baal Bone Colliery Continued Operations Environmental Assessment (AECOM, 2010).	2012 AEMR does not include a review of the Site Water Balance	Non-compliant
4.11 Ben Bullen Creek Management Plan			

Reference	Requirement	Evidence	Audit Finding
Water Management Plan (July 2012)			
4.11	The Ben Bullen Creek Natural Channel Design and Restoration Plan must include:	Not yet finalised, under development	Not triggered
	(a) geomorphic and geotechnical assessment of the existing Ben Bullen Creek diversion;	Not yet finalised, under development	Not triggered
	(b) assessment of flood hydraulics of the existing diversion;	Not yet finalised, under development	Not triggered
	(c) staging and timing of remediation works;	Not yet finalised, under development	Not triggered
	(d) detailed design of bed and bank remediation works;	Not yet finalised, under development	Not triggered
	(e) revegetation and rehabilitation methods;	Not yet finalised, under development	Not triggered
	(f) a program to monitor surface water flows, quality, stream health and channel stability; and (g) an implementation program.	Not yet finalised, under development	Not triggered
4.12 Erosion and Sediment Control			
4.12	The Erosion and Sediment Control Plan must:	Plan not finalised but the draft is compliant	Compliant
	(a) be consistent with the requirements of the Managing Urban Stormwater, Soils and Construction Volume 2E Mines and Quarries (DECCW, 2008), or its latest version;	Plan not finalised but the draft is compliant	Compliant
	(b) identify activities that could cause soil erosion and generate sediment;	Plan not finalised but the draft is compliant	Compliant
	(c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;	Plan not finalised but the draft is compliant	Compliant
	(d) describe the location, function, and capacity of erosion and sediment control structures; and	Plan not finalised but the draft is compliant	Compliant
	(e) describe what measures would be implemented to maintain the structures over time.	Plan not finalised but the draft is compliant	Compliant
4.13 Surface Water and Groundwater Response Plan			
4.13	The Surface and Ground Water Response Plan must describe what measures and/or procedures would be implemented to:	Plan not finalised but the draft is compliant	Compliant
	(a) respond to any exceedences of the surface water, stream health, and groundwater assessment criteria;	Plan not finalised but the draft is compliant	Compliant
	(b) mitigate the loss of any base flows to Jews Creek following the completion of mining; and	Plan not finalised but the draft is compliant	Compliant
	(c) mitigate and/or offset any adverse impacts on riparian vegetation.	Plan not finalised but the draft is compliant	Compliant

Reference	Requirement	Evidence	Audit Finding
Water Management Plan (July 2012)			
5. MEASUREMENT AND EVALUATION			
5.1 Surface Water Monitoring			
5.1	To fulfil the objectives of the WMP as outlined in Section 1.3, the Surface Water Monitoring Plan: <ul style="list-style-type: none"> provides detailed historical baseline data on surface water quality in creeks and other waterbodies that could potentially be affected by the mining operations; 	The plan (still in draft) contains these requirements	Compliant
	<ul style="list-style-type: none"> provides details of the monitoring program regarding stream health and channel stability in creeks and diversion channels; 	Stream health monitoring and channel stability monitoring programs outlined in 4.5 and 4.6	Compliant
	<ul style="list-style-type: none"> outlines relevant surface water and stream health impact assessment criteria and establishes a protocol for the assessment and response to monitoring data; 	Impact Assessment criteria outlined in Table 3.5. Assessment and response is outlined in Section 5.1	Compliant
	<ul style="list-style-type: none"> provides information of compliance monitoring and measurement of water discharges; 	Section 4.8 outlines discharge of water	Compliant
	<ul style="list-style-type: none"> establishes a protocol for managing water in the event of the potential for any release from the site; 	Section 4.8 outlines discharge of water and refers to procedures for the management of discharged water	Compliant
	<ul style="list-style-type: none"> provides methods to assess compliance with conditions of development consents, environment protection licences and legislation relating to surface waters; and 	This requirement is addressed	Compliant
	<ul style="list-style-type: none"> outlines the reporting requirements for the results of the monitoring program. 	Reporting requirements are outlined in Section 6.	Compliant
5.1	If an exceedence of any impact assessment criteria is identified by the Surface Water Monitoring Plan then the Surface Water and Groundwater Response Plan shall be activated as detailed in Section 3.12.	Section 5. confirms this should occur	Compliant
5.2 Groundwater Monitoring			
5.2	To fulfil the objectives of the WMP as outlined in Section 1.3, the Groundwater Monitoring Plan: <ul style="list-style-type: none"> provides historical baseline monitoring data for the surrounding aquifers and regional groundwaters; 	Groundwater system targets the coal seam aquifers that have been mined onsite and this informs regional groundwater.	Compliant
	<ul style="list-style-type: none"> provides information on regional groundwater levels; 	No data for regional bores available for comparison as there are no listed bores	Compliant
	<ul style="list-style-type: none"> provides information on the water quality in the surrounding aquifers; 	Section 3.1.1	Compliant
	<ul style="list-style-type: none"> provides an estimate of the groundwater contribution to the Baal Bone Colliery water balance through groundwater inflow to the open cut workings; 	The water balance includes this information	Compliant
	<ul style="list-style-type: none"> provides details on the groundwater pressure response in the surrounding coal measures; 	Included in the WMP	Compliant
	<ul style="list-style-type: none"> outlines relevant groundwater and stream health impact assessment criteria; 	Included in the WMP	Compliant
	<ul style="list-style-type: none"> establishes a protocol for the assessment and response to monitoring data; and 	Included in the WMP	Compliant

Reference	Requirement	Evidence	Audit Finding
Water Management Plan (July 2012)			
	<ul style="list-style-type: none"> provides methods to assess and maintain compliance with the conditions of development consents, environment protection licences and legislation relating to groundwaters. 	Included in the WMP	Compliant
5.2	If an exceedence of any impact assessment criteria is identified by the Groundwater Monitoring Plan then the Surface Water and Groundwater Response Plan shall be activated as detailed in Section 3.12.	Included in the WMP	Compliant
5.3 Water Balance			
5.3	<p>As part of the water management system, water movements around the site will be monitored and recorded for use in the preparation of the annual site water balance, including:</p> <ul style="list-style-type: none"> rainfall; catchment areas, boundaries and status (i.e. natural/undisturbed, disturbed or rehabilitated) reporting to the raw/clean and dirty water management systems; all water used on site including: <ul style="list-style-type: none"> CHPP water usage; water used for dust suppression, including on haul roads, conveyors and at ROM and product stockpiles; and administration and bathhouse water usage. water imported to the site (including potable water); water discharged off site; water transfers around site including: <ul style="list-style-type: none"> on-site transfers between dams and water storages; and pit water transfers and observations of groundwater make. water levels in the major on-site water storages and operational tailings dams. 	The water balance includes this information	Compliant
5.3	This monitoring data will be collected from gauges, such as flow measuring devices on pumping systems, monthly survey levels on dams and, where appropriate, v-notch weirs on sediment dam spillways.	Noted by the auditors	Compliant
5.4 Inspection and Maintenance			
5.4	Inspections and maintenance will be undertaken in accordance with the Baal Bone Environmental Monitoring Register and include both routine/ongoing inspection requirements and episodic requirements that result from the dynamic nature of the mining operation. The minimum requirements of the inspection and maintenance are outlined in the following sections.	Weekly inspections are undertaken. Noted by the auditors	Compliant
5.4.1	<p>The Erosion and Sediment Control Plan (refer to Appendix 4), outlines the inspection and maintenance requirements for erosion and sediment controls and structures that have been implemented at Baal Bone Colliery. The plan includes the following inspections requirements:</p> <ul style="list-style-type: none"> monthly erosion and sediment control inspections, including but not limited to: <ul style="list-style-type: none"> location and integrity of sediment fences; and integrity of sediment dams. 	Integrity of dams is assessed during weekly inspections (5.1). No sediment fences onsite.	Compliant

Reference	Requirement	Evidence	Audit Finding
Water Management Plan (July 2012)			
	<ul style="list-style-type: none"> • general conditions of erosion and sediment controls; 	General conditions are addressed in inspection requirements outlined in 5.1	Compliant
	<ul style="list-style-type: none"> • inspections following the installation of new erosion and sediment controls; and 	Not in the audit period	Not triggered
	<ul style="list-style-type: none"> • inspections during and following rainfall events (greater than 20 millimetres of rainfall in 24 hours). 	Outlines requirements during and after rainfall events (5.1). Sighted one inspection of such and event.	Compliant
5.4.2	All water management infrastructure including storages and tailings dams, will be inspected and maintained in accordance with the Baal Bone Colliery Environmental Management Strategy.	EMS states that weekly Environmental Inspections must take place. Weekly inspections are undertaken (work orders) with evidence sighted by the audit team.	Compliant
5.4.2	Equipment used in the measurement of water quantity and quality such as flow meters, online instrumentation and hand held analytical meters will be tested and calibrated externally by suitably qualified persons.	Baal Bone engaged ALS Group Environmental Division Mudgee, a NATA Accredited laboratory, to undertake monthly sampling, monitoring and analysis of a range of surface and subsurface waters.	Compliant
5.5 Reporting			
5.5.1	Environmental incidents will be managed in accordance with XCN SD GDL 15.0 – Incident Management and BBN SD GDL 0020 Hazard and Incident Management	Noted by the auditors	
	Baal Bone Colliery will record and investigate all environmental incidents.	Noted by the auditors	
5.5.1	The details and final investigation results from all environmental incidents must be recorded on Baal Bone Colliery Incident Report Form & Community Complaint Form (BBN SD FRM 0055) and provided to Environment and Community Officer for review.	Sighted by the auditors for all incidents within the audit period	Compliant
	All environmental incidents are to be recorded in XstraSafe.	Sighted by the auditors for all incidents within the audit period	Compliant
5.5.1	The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.	Sighted by the auditors for all incidents within the audit period	Compliant
	The report will include the following details: <ul style="list-style-type: none"> • the date, time and nature of the exceedance/incident; • identify the likely cause of the exceedance/incident; • description of the response action that has been undertaken to date; and • description of the proposed measures to address the exceedance/incident. 	Sighted by the auditors for all incidents within the audit period	Compliant
5.5.1	Environmental incidents are managed and communicated in accordance with XCN SD ANN 0050 16.1 Measurement and Reporting Annexure and HSEC Measurement and Reporting (BBN SD GDL 0023).	Noted by the auditors	

Reference	Requirement	Evidence	Audit Finding
Water Management Plan (July 2012)			
5.5.2	In addition to reporting required by Condition 5 of Schedule 5 of the Project Approval, incidents resulting or having the potential to result in material harm to the environment (as defined by Section 147 of the POEO Act) shall be reported to the following authorities immediately, in accordance with the Baal Bone Colliery Pollution Incident Response Management Plan: <ul style="list-style-type: none"> • The Environment Protection Authority (EPA); • The Ministry of Health via the local Public Health Unit; • WorkCover; • The Local Authority (Council); and • NSW Fire and Rescue. 	Not in the audit period	Not triggered
5.5.2	The information about a pollution incident that must be notified includes: <ul style="list-style-type: none"> • the time, date, nature, duration and location of the incident; • the location of the place where pollution is occurring or is likely to occur; • the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known; • the circumstances in which the incident occurred, including the cause of the incident, if known; and • the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known. 	Not in the audit period	Not triggered
	Community complaints at Baal Bone Colliery are managed in accordance with XCN SD GDL 0004 4.0 Communication and Engagement.	Noted	
	Baal Bone Colliery operates an incident reporting and inquiry telephone line (02 6350 6900) advertised to the public via the Baal Bone website, the EPA and public notices such as newsletters. Community complaints are forwarded to the Environment and Community Officer and managed in accordance with BBN SD PRO 0012 Community Complaints Management Procedure.	Telephone line is advertised on the Baal Bone website and the community newsletter, however could not find through EPA.	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Water Management Plan (July 2012)			
5.5.3	The Environment and Community Officer is responsible for the complaint management process, including: <ul style="list-style-type: none"> • Acknowledging all complaints, responding to the complainant within 24 hours (where practicable); • Registering all complaints in Xstrasafe; • Investigating complaints impartially giving proper consideration to the facts and the circumstances prevailing at the time; • Implementing corrective actions if required; and • Reporting to relevant stakeholders the investigation outcomes and corrective actions taken. 	Noted and appears to be the process followed at site.	Compliant
	Complaints are reported in accordance with XCN SD PRO 0011 Reporting Critical and Other Serious Incidents.	Noted and appears to be the process followed at site.	Compliant
	Details and number of complaints are reported annually in the Annual Review and in the Annual Return for EPL 765 in accordance with Baal Bone's reporting requirements. As per Project Approval 09_0178 a complaints register (updated quarterly) is published on the Baal Bone webpage.	Noted and appears to be the process followed at site.	Compliant
5.5.4	The Baal Bone Colliery Environment and Community Officer is responsible for preparing information for internal communication and reporting. Water management information will also be provided to Xstrata Coal NSW (XCN) for the following purposes: <ul style="list-style-type: none"> • Xstrata Sustainability Database (XSD); and • Monthly Environment and Community Status Report. 	Noted by the auditors	
5.5.4	All water pollution incidents or non-conformances with legislative requirements will be reported internally in accordance with the Baal Bone Colliery EMS and EPL No. 765 reporting requirements.	Not in the audit period	Not triggered
5.5.5	A summary of the surface water and groundwater monitoring results will be provided in the Annual Review. The following information will be reported in accordance with the Project Approval (refer to Appendix 1): <ul style="list-style-type: none"> • a summary of monitoring results (surface water, groundwater, channel stability and stream health); • an analysis of monitoring results against impact assessment criteria, historical monitoring results and predictions in the EA; • an identification of any trends in the monitoring results; • the site water balance; • any non-compliances reported during the year; and • actions taken to address any non-compliances. 	No reference to the Site Water Balance in the 2012 AEMR, no reference to stream health or channel stability.	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Water Management Plan (July 2012)			
5.5.5	In addition, any significant findings regarding the implementation of the WMP will be reported in the Annual Review, which may include: <ul style="list-style-type: none"> • the effectiveness of the erosion and sediment controls; • changes to the site water balance; and • any identified issues or exceedance of impact assessment criteria (trigger values). 	No reference to the Site Water Balance in the 2012 AEMR however not necessarily a requirement should there be no significant changes in the water balance which was the case in 2012. Exceedences in trigger values stated.	Compliant
5.5.5	The Annual Review will also document community complaints and incidents relating to the performance, maintenance and/or failure of the Baal Bone Colliery water management system.	Burst Pipeline (April 2012) – discharge of mine water from non-licensed location Iron exceedance at LD6 of 2mg/L in September 2012. Zinc exceedance at BBPB3 for five consecutive months, between August and December 2012. Copper exceedance at BBPB4 in January 2012, and again for four consecutive months from July to October 2012	Compliant
5.5.5	From 31 March 2011, the Proponent shall:	Noted	
	(a) make the following information publicly available on its website to the satisfaction of the Director- General: <ul style="list-style-type: none"> • a copy of all approved strategies, plans and programs; 	Website contains these documents	Compliant
	(b) keep this information up-to-date, to the satisfaction of the Director-General.	There is no formal process for compliance with this requirement, it is therefore assumed that the checks conducted as part of this audit fulfil the DG's requirements and indirectly provide tacit approval of the currency of the information provided on the website.	Compliant
5.5.6	Site water management issues of interest to the community will be addressed in community consultation meetings in accordance with the Baal Bone Colliery Social Involvement Plan (SIP). Specific issues relating to individual landowners and residents will be addressed directly by the Baal Bone Colliery Environment and Community Officer, as required.	Noted by the auditors and sighted in CCC minutes	Compliant
	A copy of the water monitoring results reported in the Annual Review will be made available to the public.	2012 AEMR is available on Baal Bone's website	Compliant

Reference	Requirement	Evidence	Audit Finding
Water Management Plan (July 2012)			
6. REVIEW AND IMPROVEMENT			
6	Ongoing monitoring and review on the performance and implementation of this WMP will be undertaken in accordance with XCN SD GDL 16.0 Monitoring and Review and the Baal Bone Colliery Environmental Management Strategy.	Noted by the auditors	
6	The Environment and Community Officer will review this WMP and supporting plans and resubmit to DP&I every year or earlier if required.	WMP developed as a draft document for submission to DP&I 21/09/12. The letter to DoP in 2013 quoted a review but no changes necessary.	Compliant
	Any changes made to the WMP as a result of the review will be made in consultation with OEH, DTIRIS and NOW. A copy of the revised WMP will be supplied to the Director General of DP&I for approval. The WMP will reflect changes in environmental requirements, technology and operational procedures.	Noted by the auditors	Compliant
	The WMP will be made publicly available on the Baal Bone Colliery website.	Only Surface Water and Groundwater Response Plan and the Baal Bone Colliery Environmental Management Strategy are available online. Recommended that a copy of each related plan be on the website. However the WMP is not approved and therefore is not the official plan though the previous WMP is not posted.	Non-compliant
6	Within 3 months of the submission of an:	Noted	
	(a) audit report under condition 8 of schedule 5;	Revisions of numerous plans occurred in 2012 as a result of 2011 IEA.	Compliant
	(b) incident report under condition 5 of schedule 5; and	Reports were reviewed by the auditors	Compliant
	(c) annual review under condition 3 of schedule 5, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.	2013 review constituted a revision of the Biodiversity and Land Management Plan as per the letter submitted to notify the D-G on 16/05/2013	Compliant
	<i>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.</i>	Noted	

Reference	Requirement	Evidence	Audit Finding
Water Management Plan (July 2012)			
8. ACCOUNTABILITIES			
Operations Manager	<ul style="list-style-type: none"> • Ensure appropriate resources are approved for the effective implementation of this WMP; • Develop, approve, implement and maintain standards that are consistent with the XCN SD Guidelines and meet all relevant legislation requirements; • Authorise internal and external reporting requirements of this plan; and • Authorise subsequent revisions of this plan. 	Noted by the auditors	Compliant
Environment and Community Officer	<ul style="list-style-type: none"> • Ensure that the requirements of this plan are effectively implemented; • Ensure that the results of monitoring are systematically evaluated and reported to relevant personnel for consideration as a part of ongoing mine planning; • Review monitoring data as it becomes available to assess compliance with the requirements of this plan; • Coordinate incident investigation processes including associated reporting requirements; • Coordinate the implementation of corrective actions and evaluate their effectiveness; • Monitor corrective actions from inspections or non-compliances and ensuring they are closed out and effective; • Conduct monitoring, periodic environmental inspections and inspections of all pollution control structures; • Ensure all internal and external reporting requirements are met; • Providing advice to employees and managers regarding water management initiatives; • Manage and maintain the surface water and groundwater monitoring programs; • Ensure that all monitoring records are effectively maintained on site; • Providing adequate training to employees and contractors regarding their requirements under this WMP; • Manage and respond to all community complaints in relation to legislative and corporate requirements and the specified TARPS established under this plan; and • Undertake reporting. 	Noted by the auditors	Compliant
Department Managers	<ul style="list-style-type: none"> • Analyse the need for, develop, approve, implement and maintain procedures for work within departments or work areas that involves high surface water and groundwater risks; • Ensure any potential or actual SD issue is reported in accordance with legal requirements and the corporate standard; • Monitor that teams are assessing and controlling the surface water and groundwater risks and impacts; and • Ensure effective management of all community complaints and all surface water and groundwater incidents/exceedance are appropriately investigated. 	Noted by the auditors	Compliant
All employees and Contractors	<ul style="list-style-type: none"> • Undertake all activities in accordance with this plan; and • Report all non compliances with this plan as per the Baal Bone Colliery Environmental Management Strategy. 	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water Monitoring Plan (September 2012)			
2. PLANNING			
2.1 Project Approval			
2.1	The Surface Water Monitoring Plan must include:	Noted	
	(a) detailed baseline data on surface water flows and quality in creeks and other water bodies that could be impacted by the project (including the Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek);	This information is present though Coxs River monitoring was only established recently.	Compliant
	(b) surface water quality and stream health assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts; and	The criteria was presented in the SWMP	Compliant
	(c) a program to monitor: <ul style="list-style-type: none"> • surface water flows, quality, and impacts on water users; • stream health; and • channel stability in the Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek.	The monitoring program was presented as prescribed in the SWMP	Compliant
2.2 Environmental Protection Licence			
2.2	Surface water monitoring at Baal Bone Colliery will be undertaken in accordance with the conditions of Environment Protection Licence (EPL) No. 765.	Noted - See EPL	Compliant
	The EPL currently contains five licensed monitoring points in relation to surface water.	Two points (LDP3 and 6) have been relinquished, with 3 points still remaining.	Compliant
2.3 Stakeholder Consultation			
2.3	The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must:	27/10/2013 the letter of approval was received from the D-G.	Compliant
	(a) be prepared in consultation with DECCW, I&I NSW and NOW by suitably qualified expert/s whose appointment/s have been approved by the Director-General;	Copies of the Plan sent to DoP, OEH, NoW and DTIRIS on 2 October 2011.	Compliant
	(b) be submitted to the Director-General for approval prior to carrying out any construction on site; and	No construction has been carried out.	Not triggered
	(c) include: <ul style="list-style-type: none"> • a detailed Site Water Balance; • the Ben Bullen Creek Natural Channel Design and Restoration Plan; • an Erosion and Sediment Control Plan; • a Surface Water Monitoring Program; • a Groundwater Monitoring Plan; and • a Surface and Ground Water Response Plan. 	Completed and submitted as an interim and will be submitted as a final as is allowed under the staged submission.	Not triggered

Reference	Requirement	Evidence	Audit Finding
Surface Water Monitoring Plan (September 2012)			
3. BASELINE CONDITIONS			
3.3 Impact Assessment Criteria			
3.3.1	Whilst flow condition monitoring data is available for some monitoring locations, insufficient data is available to allow separate criteria to be developed for most locations. In these instances, a single criterion has been developed for the monitoring locations. Subsequently, flow condition monitoring will be continued and impact assessment criteria will be refined on an ongoing basis in consideration of the flow condition monitoring.	Noted by the auditors	Compliant
4. SURFACE WATER MONITORING PROGRAM			
4.1 Monitoring Standards			
4.1	Surface water monitoring at Baal Bone Colliery will be undertaken in accordance with relevant Australian Standards, legislation and the OEH approved methods for sampling, including (but not limited to):	Noted	
	• Approved Methods for the Sampling and Analysis of Water pollutants in NSW (DEC, 2004);	The Laboratory reports did not state compliance with these requirements. Subsequent to the audit, ALS provided confirmation that the required standards are met and that future laboratory reports would quote these standards.	Compliant
	• AS/NZS 5667.1:1998 Water Quality – Sampling – Guidance on the Design of Sampling Programs, Sampling Techniques and the Preservation and Handling of Samples; and	ALS certificates were reviewed by the auditors and quoted the required standards	Compliant
	• AS/NZS 5667.10:1998 Water Quality – Sampling – Guidance on Sampling of Waste Waters.	ALS certificates were reviewed by the auditors and quoted the required standards	Compliant
4.3 Surface Water Quality Monitoring			
4.3	Baal Bone Colliery will undertake all surface water monitoring requirements in accordance with the Project Approval, EPL and water licences.	Noted by the auditors	Compliant
4.3	Surface water monitoring is undertaken monthly at the monitoring locations	Monthly monitoring occurs, as sighted in spreadsheet results (Water)	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water Monitoring Plan (September 2012)			
4.4 Flow Monitoring			
4.4	Visual monitoring of stream flow will be undertaken when water quality sampling is undertaken for Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek, both upstream and downstream of the operation, to monitor any potential impacts on stream health as a result of the operation.	Noted by the auditors	Compliant
	An assessment of the presence or absence of flow, as well as the strength of the flow (i.e. high, medium, low), is to be made visually at the time of sample collection.	Noted by the auditors	Compliant
	Flow monitoring data will be analysed in conjunction with water quality monitoring results from these creeks to provide a holistic view of stream health.	Noted by the auditors	Compliant
4.4	In accordance with EPL 765 (Condition M6.1), continuous flow monitoring via a data logger is undertaken at BBLD6.	Continuous logger still in place however no discharge is occurring. Noted by the auditors	Compliant
4.5 Channel Stability Monitoring			
4.5	Channel stability monitoring will be undertaken annually for Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek to assess the condition of the watercourse.	No channel stability monitoring has been undertaken	Non-compliant
	The monitoring will involve an observational survey of a stream reach that is to include:		
	<ul style="list-style-type: none"> • documenting locations and dimensions of significant erosive or depositional features so that any subsequent changes can be evaluated quantitatively; • photographic monitoring points at representative locations to enable a comparison over time of channel stability; and • written descriptions of the stream at each of the photographic points focusing on evidence of erosion and exposed soils. 		
4.6 Stream Health Monitoring			
4.6	Stream health monitoring is to be undertaken for Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek and will include the monitoring of macroinvertebrate assemblages and riparian vegetation.	Stream health monitoring has been conducted for Ben Bullen Creek only.	Non-compliant
	The monitoring is to be undertaken annually in Autumn in accordance with a recognised system such as the Australian River Assessment System (AUSRIVAS) or Stream Invertebrate Grade Number – Average Level (SIGNAL).		
	The monitoring will include: <ul style="list-style-type: none"> • monitoring undertaken for Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek; 		

Reference	Requirement	Evidence	Audit Finding
Surface Water Monitoring Plan (September 2012)			
	<ul style="list-style-type: none"> an assessment of the ongoing change within in-stream habitats. This monitoring is to occur on a biannual basis during spring and autumn; field investigations to assess river health in accordance with the guidelines for the selected system (e.g. AUSRIVAS or SIGNAL); and an assessment of any changes to riparian vegetation and stream health as a result of impacts on alluvial aquifers (refer to the Baal Bone Colliery Groundwater Monitoring Plan). 		
4.7 On Site Water Monitoring			
	Surface water monitoring to be undertaken on the Baal Bone Colliery site includes the following:	Noted	
	<ul style="list-style-type: none"> daily rainfall, as recorded from the on-site weather station or Lithgow Bureau of Meteorology (BOM) site; 	Daily rainfall recorded (GW level data spreadsheet)	Compliant
	<ul style="list-style-type: none"> weekly visual monitoring of water level of the Process Water Dam, Dirty Water Dam, and Overshot Dam; 	Evidence of inspections sighted by the audit team (weekly work order)	Compliant
	<ul style="list-style-type: none"> water level monitoring of all pollution control dams to be conducted pre, during and post rainfall events of greater than 50 millimetres in 24 hours); 	Control features are inspected weekly as per the weekly work order and Environment Weekly Inspection following rainfall periods, noted in comments section and photos also taken and stored in individual rainfall event folders.	Compliant
4.7	<ul style="list-style-type: none"> monthly monitoring of dams, from where off-site discharge can occur, for the following water quality parameters: <ul style="list-style-type: none"> - pH; - EC ($\mu\text{s/cm}$); - TSS (mg/L); and - TDS (mg/L). 	Overshot Dam - pH, EC and TSS measured (Water spreadsheet)	Compliant
	<ul style="list-style-type: none"> at least monthly inspections of all sediment traps (refer to the Baal Bone Colliery Erosion and Sediment Control Plan), as well as during and after storm events (i.e. rainfall events of greater than 50 millimetres in 24 hours). 	Control features are inspected weekly as per the weekly work order and Environment Weekly Inspection following rainfall periods, noted in comments section and photos also taken and stored in individual rainfall event folders.	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water Monitoring Plan (September 2012)			
4.8 Discharge of Water			
4.8	All water is to be discharged in accordance with EPL No. 765, the Blue Book and the Baal Bone Colliery SD-PRO-0016 Discharge of Water Offsite.	Checked in the EPL	Compliant
	The SD-PRO-0016 Discharge of Water Offsite has been developed for off-site discharges to ensure that the downstream impacts of moving water are considered.	Noted	
	The procedure outlines the discharge of water from BBLDP1 Overshot Dam and BBDW Dirty Water Dam to Ben Bullen Creek.	Noted	
	The procedure can also be used to manage water transfers around site.	Noted	
5. ASSESSMENT AND RESPONSE			
5.1 Stream Health and Impacts			
5.1.1	The Baal Bone Colliery Environment and Community Officer (ECO) will be responsible for the monthly review of the monitoring results and associated trends in water quality.	Noted	
	In the event that any water quality measurement is found to deviate from background trends and/or is outside the adopted impact assessment criteria, the Baal Bone Colliery ECO will be responsible for initiating further site-specific investigations when:	Noted this has not occurred in the audit period	Not triggered
	• in his/her professional judgement, the deviation from background trends and adopted impact assessment criteria could result in environmental harm;	Noted this has not occurred in the audit period	Not triggered
	• three (3) consecutive values are outside the adopted impact assessment criteria; or	Noted this has not occurred in the audit period	Not triggered
	• the measurement varies significantly from background water quality trends.	Noted this has not occurred in the audit period	Not triggered
5.1.1	Section 3.3.2.3 of ANZECC (2000) suggests that if an adopted impact assessment criteria is exceeded, the aim of further site-specific investigations is to assess if a 'potential risk' or an actual problem exists.	Noted	
	The site-specific investigation will be initiated in accordance with the Baal Bone Colliery Surface Water and Groundwater Response Plan (refer to Appendix 7 of the Baal Bone Colliery Water Management Plan), the BBN SD GDL 0020 Hazard and Incident Management Guideline and XCN SD GDL 15.0 Incident Management.	Noted	
5.1.1	All monitoring data will be retained in an appropriate format on site and will be used to review the effectiveness of the Baal Bone Colliery water management system on an ongoing basis.	Sighted in the site inspection, water spreadsheet and water balance	Compliant
5.1.1	The results of this monitoring will be reviewed annually and reported in the Annual Review as required.	This information is in the AEMR	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water Monitoring Plan (September 2012)			
5.2.2	The Baal Bone Colliery ECO will be responsible for the completion of the annual channel stability and stream health assessments for Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek in accordance with Sections 4.5 and 4.6.	No channel stability monitoring and stream health assessments have been undertaken	Non-compliant
5.2.2	The assessment of stream health and channel stability will include a review of the current monitoring results against historical monitoring results to identify any potential deterioration or improvement in stream health.	No channel stability monitoring and stream health assessments have been undertaken	Non-compliant
	In the event deterioration in stream health is identified, the Baal Bone Colliery ECO will be responsible for implementing response mechanisms in accordance with the Surface Water and Groundwater Response Plan (Appendix 7 of the Baal Bone Colliery WMP).	No channel stability monitoring and stream health assessments have been undertaken	Not triggered
5.2.2	The results of this monitoring will be reviewed annually and reported in the Annual Review as required.	2012 AEMR does not include reference to stream health and channel stability monitoring	Non-compliant
5.2 Licence Conditions			
5.2	In the event that any license conditions relating to surface water management and quality are not met, an investigation will be undertaken by the Baal Bone Colliery ECO.	2012 AEMR describes an investigation into iron exceedance (Sept 2012) and review of data however no cause identified as levels returned to normal. 2013 exceedance in TSS at LD3 and LD6 in Feb. Investigation Findings contained in Q1 Environmental Monitoring Summary 2013. Investigation documentation sighted and entry in XtraSafe also sighted.	Compliant
	All investigations are to be undertaken in accordance with the Baal Bone Colliery Surface Water and Groundwater Response Plan (refer to Appendix 7 of the Baal Bone Colliery WMP).	The Surface Water and Groundwater Response Plan was reviewed by the auditors	Compliant
6. REPORTING AND REVIEW			
6.1 Environmental Incidents			
6.1	Environmental incidents will be managed in accordance with XCN SD GDL 15.0 – Incident Management and BBN SD GDL 0020 Hazard and Incident Management, which has been developed to:	Noted	
	• define and categorise environmental incidents;	Noted	
	• manage sustainable development hazards and incidents to minimise damage to people, environment, community and other assets; and	Noted	
	• identify factors that contributed to incidents through an investigation process and to learn from those events and prevent reoccurrence.	Noted	

Reference	Requirement	Evidence	Audit Finding
Surface Water Monitoring Plan (September 2012)			
6.1	Baal Bone Colliery will record and investigate all environmental incidents. The details and final investigation results from all environmental incidents must be recorded on Baal Bone Colliery Incident Report Form & Community Complaint Form (BBN SD FRM 0055) and provided to Environment and Community Officer for review. All environmental incidents are to be recorded in XtraSafe.	Incidents reported in XtraSafe database. The auditors have sighted the incident report submitted to DoP on 15/02/2013 regarding the leaking pipeline (occurred on 14/02/2013).	Compliant
6.1	In accordance with Condition 5 of Schedule 5 of the Project Approval, the proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident.	Noted, where timing was not met on the incident reports reviewed, timing had been agreed with the DP&I prior to the due date.	Compliant
6.1	Within 7 days of the date of the incident, Baal Bone Colliery shall provide the Director-General and any other relevant agencies with a detailed report on the incident.	Noted	
	The report will include the following details:	The incident reports reviewed complies with this requirement	Compliant
	• the date, time and nature of the exceedance/incident;	The incident reports reviewed complies with this requirement	Compliant
	• identify the likely cause of the exceedance/incident;	The incident reports reviewed complies with this requirement	Compliant
	• description of the response action that has been undertaken to date; and	The incident reports reviewed complies with this requirement	Compliant
6.1	Environmental incidents are managed and communicated in accordance with XCN SD ANN 0050 16.1 Measurement and Reporting Annexure and HSEC Measurement and Reporting (BBN SD GDL 0023).	Noted, observed for sample incidents at site.	Compliant
6.1.1	In addition to reporting required by Condition 5 of Schedule 5 of the Project Approval, incidents resulting or having the potential to result in material harm to the environment (as defined by Section 147 of the POEO Act) shall be reported to the following authorities immediately, in accordance with the Baal Bone Colliery Pollution Incident Response Management Plan:	Noted	
	<ul style="list-style-type: none"> • the Environment Protection Authority (EPA); • the Ministry of Health via the local Public Health Unit; 	Notified when required through the audit period	Compliant
		No notification required during the audit period.	Not triggered

Reference	Requirement	Evidence	Audit Finding
Surface Water Monitoring Plan (September 2012)			
	<ul style="list-style-type: none"> • WorkCover; 	No notification required during the audit period.	Not triggered
	<ul style="list-style-type: none"> • the Local Authority (Council); and 	No notification required during the audit period.	Not triggered
	<ul style="list-style-type: none"> • NSW Fire and Rescue. 	No notification required during the audit period.	Not triggered
6.1.1	In the case where immediate threat to human health or property has been identified, contact NSW Fire and Rescue as a first priority.	Not in the audit period	Not triggered
6.1.1	The decision on whether to notify should not delay immediate actions to ensure the safety of people or contain a pollution incident. However, incident notification should be made as soon as it is safe to do so.	Not in the audit period	Not triggered
6.1.1	The information about a pollution incident that must be notified includes:	Not in the audit period	Not triggered
	<ul style="list-style-type: none"> • the time, date, nature, duration and location of the incident; 	Not in the audit period	Not triggered
	<ul style="list-style-type: none"> • the location of the place where pollution is occurring or is likely to occur; 	Not in the audit period	Not triggered
	<ul style="list-style-type: none"> • the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known; 	Not in the audit period	Not triggered
	<ul style="list-style-type: none"> • the circumstances in which the incident occurred, including the cause of the incident, if known; and 	Not in the audit period	Not triggered
	<ul style="list-style-type: none"> • the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known. 	Not in the audit period	Not triggered
6.2 Community Complaints			
6.2	Baal Bone Colliery operates an incident reporting and inquiry telephone line (02 6350 6900) advertised to the public via the Baal Bone website, the EPA and public notices such as newsletters. Community complaints are forwarded to the Environment and Community Officer and managed in accordance with BBN SD PRO 0012 Community Complaints Management Procedure.	Noted, complaints system operates but no complaints in the audit period.	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water Monitoring Plan (September 2012)			
6.2	The Environment and Community Officer is responsible for the complaint management process, including: <ul style="list-style-type: none"> • Acknowledging all complaints, responding to the complainant within 24 hours (where practicable); • Registering all complaints in Xstrasafe; • Investigating complaints impartially giving proper consideration to the facts and the circumstances prevailing at the time; • Implementing corrective actions if required; and • Reporting to relevant stakeholders the investigation outcomes and corrective actions taken. 	Noted, complaints system operates but no complaints in the audit period.	Compliant
6.2	Details and number of complaints are reported annually in the Annual Review and in the Annual Return for EPL 765 in accordance with Baal Bone's reporting requirements. As per Project Approval 09_0178 a complaints register (updated quarterly) is published on the Baal Bone webpage.	Noted, complaints system operates but no complaints in the audit period.	Compliant
6.3 Internal Reporting			
6.3	The Baal Bone Colliery Environment and Community Officer is responsible for preparing information for internal communication and reporting. Water management information will also be provided to Xstrata Coal NSW (XCN) for the following purposes:	Noted	
	• Xstrata Sustainability Database (XSD); and	Sighted	Compliant
	• Monthly Environment and Community Status Report.	Sighted copies including this information	Compliant
6.3	All water pollution incidents or non-conformances with legislative requirements will be reported internally in accordance with the Baal Bone Colliery EMS and EPL 765 reporting requirements.	Noted	
6.4 External Reporting			
6.4	A summary of the surface water and groundwater monitoring results will be provided in the Annual Review report. The following information will be reported in the Annual Review report in accordance with the Project Approval conditions (refer to Table 2.1):	The AER/AEMR includes this information.	Compliant
	• a summary of monitoring results (surface water, groundwater, channel stability and stream health);	Channel stability monitoring not conducted as per requirements, therefore not reported.	Non-compliant
	• an analysis of monitoring results against impact assessment criteria, historical monitoring results and predictions in the EA;	The AER/AEMR includes this information.	Compliant
	• an identification of any trends in the monitoring results;	The AER/AEMR includes this information.	Compliant
	• the site water balance;	The AER/AEMR includes this information.	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water Monitoring Plan (September 2012)			
	<ul style="list-style-type: none"> any non-compliances reported during the year; and 	The AER/AEMR includes this information.	Compliant
	<ul style="list-style-type: none"> actions taken to address any non-compliances 	The AER/AEMR includes this information.	Compliant
	In addition, any significant findings regarding the implementation of the WMP will be reported in the Annual Review report, which may include: <ul style="list-style-type: none"> the effectiveness of the erosion and sediment controls; 	The AER/AEMR includes this information.	Compliant
	<ul style="list-style-type: none"> changes to the site water balance; and 	Water Balance not reported in AEMR	Non-compliant
	<ul style="list-style-type: none"> any identified issues or exceedences of impact assessment criteria (trigger values). 	The AER/AEMR includes this information.	Compliant
6.4	The Annual Review report will also document community complaints and incidents relating to the performance, maintenance and/or failure of the Baal Bone Colliery water management system.	The AER/AEMR includes this information.	Compliant
6.4	Additionally, in accordance with Condition 9, Schedule 5 of the Project Approval, Baal Bone Colliery will regularly report environmental monitoring results on its website.	The website contains this information and it is current	Compliant
6.5 Community Consultation			
6.5	Site water management issues of interest to the community will be addressed in community consultation meetings in accordance with the Baal Bone Colliery Social Involvement Plan (SIP).	Noted in CCC minutes	Compliant
	Specific issues relating to individual landowners and residents will be addressed directly by the Baal Bone Colliery Environment and Community Officer as required.	This has not occurred in the audit period	Compliant
6.5	A copy of the water monitoring results reported in the Annual Review will be made available to the public.	AER/AEMR is available on the Baal Bone website.	Compliant
7. REVIEW AND IMPROVEMENT			
7	Ongoing monitoring and review on the performance and implementation of this SWMP will be undertaken in accordance with XCN SD GDL 16.0 Monitoring and Review and the Baal Bone Colliery Environmental Management Strategy.	Noted by the auditors	Compliant
7	The Environment and Community Officer will review this SWMP and supporting plans and resubmit to DP&I every year or earlier if required.	Development of draft document for submission to DP&I (Umwelt) on 21/09/12.	Compliant
	Any changes made to the SWMP as a result of the review will be made in consultation with OEH, DTIRIS and NOW.	Noted	Not triggered
	A copy of the revised SWMP will be supplied to the Director General of DP&I for approval.	Not triggered as report is interim and yet to be submitted for approval. Will be submitted when finalised.	Not triggered

Reference	Requirement	Evidence	Audit Finding
Surface Water Monitoring Plan (September 2012)			
	The SWMP will reflect changes in environmental requirements, technology and operational procedures.	Noted	Not triggered
7	The WMP will be made publicly available on the Baal Bone Colliery website	Not on the website as it is still in draft	Non-compliant
7	Within 3 months of the submission of an:	Noted	
	(a) audit report under condition 8 of schedule 5;	Revisions of numerous plans occurred in 2012 as a result of 2011 IEA.	Compliant
	(b) incident report under condition 5 of schedule 5; and	Reports were reviewed by the auditors	Compliant
	(c) annual review under condition 3 of schedule 5, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.	2013 review constituted a revision of the Biodiversity and Land Management Plan as per the letter submitted to notify the D-G on 16/05/2013	Compliant
9. ACCOUNTABILITIES			
Operations Manager/Senior Project Manager	Providing adequate resources to undertake the activities required by this program;	Noted	Compliant
	Approving revisions of this plan; and	Noted	Compliant
	completing required external reporting regarding the contents of this plan.	Noted	Compliant
Environment and Community Officer	Ensuring adequate resources are available to implement the requirements of this plan;	Noted	Compliant
	Approving revisions of this plan;	Noted	Compliant
	Consulting with relevant government departments as required;	Noted	Compliant
	Providing information to Operations Manager regarding reporting requirements for external agencies;	Noted	Compliant
	Coordinating all monitoring required by this plan, and additional monitoring if required;	Noted	Compliant
	Investigating non-compliances or near non-compliances with water monitoring requirements and criteria;	Noted	Compliant
	Completing monthly reporting requirements as per this plan;	Noted	Compliant
	Monitoring of actions from non compliances; and	Noted	Compliant
	Coordinating reviews of this plan.	Noted	Compliant
All employees and contractors	Undertaking all activities in accordance with this plan.	Noted	Compliant

Reference	Requirement	Evidence	Audit Finding
Groundwater Monitoring Plan (September 2012)			
2. PLANNING			
2.1 Project Approval			
2.1	The Groundwater Monitoring Plan must include:	Noted	
	(a) baseline data of groundwater levels, yield and quality in the region that may be affected by mining operations on site;	Baseline data of groundwater levels and quality, but not yield outlined (3.2)	Non-compliant
	(b) a program to augment the baseline data over the life of the project;	Section 3.3.3 describes background data correction methods. Monitoring of the groundwater is continuing	Compliant
	(c) groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;	Section 3.3.2 describes trigger levels for ground water quality. Section 3.4 refers to ground water level triggers levels.	Compliant
	(d) a program to monitor: <ul style="list-style-type: none"> • groundwater inflows to the underground mining operations; • the impacts of the project on: <ul style="list-style-type: none"> - the alluvial, Triassic, and coal seam aquifers; - base flows to the Coxs River Swamp; - any groundwater bores on privately-owned land; - riparian vegetation; and • seepage/leachate from any tailings dams, water storages or backfilled voids on site; and 	Riparian vegetation impacts not included in the monitoring program but the Cox's River Swamp is, which fulfils this requirement. Seepage/leachate is outlined in the monitoring program (4.1.4). Groundwater inflows to underground workings will be identified as part of the closure process and then have ongoing management measures developed (4.2.1).	Compliant
	(e) a program to validate the groundwater model for the project, and calibrate it to site specific conditions.	Validated by qualified groundwater consultant every 2 years (4.2.1)	Non-compliant
2.3 Stakeholder Consultation			
	The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must:	27/10/2013 the letter of approval was received from the D-G.	Compliant
	(a) be prepared in consultation with DECCW, I&I NSW and NOW by suitably qualified expert/s whose appointment/s have been approved by the Director-General;	Copies of the Plan sent to DoP, OEHL, NoW and DTIRIS on 2 October 2011.	Compliant

Reference	Requirement	Evidence	Audit Finding																															
Groundwater Monitoring Plan (September 2012)																																		
2.3	(b) be submitted to the Director-General for approval prior to carrying out any construction on site; and	No construction has been carried out.	Not triggered																															
	(c) include: <ul style="list-style-type: none"> • a detailed Site Water Balance; • the Ben Bullen Creek Natural Channel Design and Restoration Plan; • an Erosion and Sediment Control Plan; • a Surface Water Monitoring Program; • a Groundwater Monitoring Plan; and • a Surface and Ground Water Response Plan. 	Completed and submitted as an interim and will be submitted as a final as is allowed under the staged submission. The draft fulfils these requirements.	Compliant																															
3. IMPLEMENTATION																																		
3.2 Baseline Data																																		
3.2	Ongoing monitoring (refer to Section 4.0) will be used to augment the existing baseline data and to confirm the water balance included in the Environmental Assessment.	Noted by the auditors	Compliant																															
3.3.2	Table 3.1 – Water Quality trigger Levels																																	
	<table border="1"> <thead> <tr> <th>Element</th> <th>Short Term Minor Change Criteria</th> <th>Short Term Major Change Criteria</th> <th>All Bore 80th Percentile</th> <th>BBP4 80th Percentile</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>4.6</td> <td>4.6</td> <td>5.1*</td> <td>5.9*</td> </tr> <tr> <td>Electrical Conductivity (µS/cm)</td> <td>300</td> <td>300</td> <td>100</td> <td>90</td> </tr> <tr> <td>Copper (mg/L)</td> <td>0.041</td> <td>0.043</td> <td>0.013</td> <td>0.002</td> </tr> <tr> <td>Iron (mg/L)</td> <td>15.25</td> <td>24.28</td> <td>12</td> <td>12</td> </tr> <tr> <td>Zinc (mg/L)</td> <td>0.143</td> <td>0.175</td> <td>0.089</td> <td>0.026</td> </tr> </tbody> </table>				Element	Short Term Minor Change Criteria	Short Term Major Change Criteria	All Bore 80 th Percentile	BBP4 80 th Percentile	pH	4.6	4.6	5.1*	5.9*	Electrical Conductivity (µS/cm)	300	300	100	90	Copper (mg/L)	0.041	0.043	0.013	0.002	Iron (mg/L)	15.25	24.28	12	12	Zinc (mg/L)	0.143	0.175	0.089	0.026
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		Noted																																
As outlined in the Aurecon (2009a) groundwater assessment report, the following procedure should be undertaken when the major trigger level is exceeded at the potentially impacted bore:		BBP4 has been discovered to be seasonal in its exceedance in copper and classified as a major impact (Spring, annually)	Compliant																															
• If the corresponding data at BBP4 has remained lower than the 80th percentile for the BBP4, no background data correction is required;		BBP4 has been discovered to be seasonal in its exceedance in copper and classified as a major impact (Spring, annually)	Compliant																															
3.3.3																																		

Reference	Requirement	Evidence	Audit Finding
Groundwater Monitoring Plan (September 2012)			
	<ul style="list-style-type: none"> If the corresponding data at BP4 has increased to be higher than the 80th percentile for BBP4, subtract the difference from the 50th percentile of the potentially impacted bore; and 	BBP4 has been discovered to be seasonal in its exceedance in copper and classified as a major impact (Spring, annually)	Compliant
	<ul style="list-style-type: none"> If the background corrected bore remains above the major trigger value , an impact is suggested and should be investigated. 	BBP4 has been discovered to be seasonal in its exceedance in copper and classified as a major impact (Spring, annually)	Compliant
3.3.3	It is suggested that the 80th percentiles at the background bore BBP4 be updated with additional data, until the ANZECC (2000) protocol of 24 measurements is available (Aurecon, 2009a).	Noted by the auditors	
3.4 Groundwater Level Variations			
3.4	The criteria for groundwater levels will be determined by assessing the variations from the historical trend line and by comparison with the associated groundwater modelling predictions undertaken to support the historical development applications (refer to Section 4.1).	Noted by the auditors	
3.4	Future groundwater level trends will be reported in the Annual Review.	Noted by the auditors	Compliant
4. MEASUREMENT AND EVALUATION			
4.1 Groundwater Monitoring Program			
4.1	<p>The existing groundwater monitoring regime at Baal Bone Colliery consists of the following monitoring components:</p> <ul style="list-style-type: none"> monitoring of groundwater extraction volumes from the underground workings; 	Noted by the auditors	Compliant
4.1	<ul style="list-style-type: none"> water quality monitoring, including: <ul style="list-style-type: none"> monthly monitoring of six piezometers located in the vicinity of Longwalls 29 to 31, monitoring groundwater in the Coxs River Swamp in the south of the Project; and groundwater levels. 	2012 AEMR describes findings of monthly monitoring in the six piezometers. Monthly groundwater level monitoring sighted in spreadsheet (GW level data)	Compliant
4.1	As further mining is not planned for this area, monthly monitoring of the Jews Creek Swamp will not be undertaken. In the event that mining operations recommence at Baal Bone Colliery, the need for monitoring of the Jews Creek Swamp piezometers will be reviewed.	Noted by the auditors	Not triggered

Reference	Requirement	Evidence	Audit Finding																																																								
Groundwater Monitoring Plan (September 2012)																																																											
4.1.1	Groundwater monitoring at Baal Bone Colliery will be undertaken in accordance with: <ul style="list-style-type: none"> • relevant Australian Standards, legislation and OEH approved methods for sampling, including but not limited to: <ul style="list-style-type: none"> - AS/NZS 5667.1:1998. Water Quality – Sampling – Guidance on the Design of Sampling Programs, Sampling Techniques, and the Preservation and Handling of Samples; - AS/NZS 5667.11:1998. Water Quality - Sampling - Guidance on Sampling of 	ALS certificate was reviewed which quoted the required standards	Compliant																																																								
	<ul style="list-style-type: none"> • Department of Environment and Conservation (DEC), 2004. Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales; - Department of Infrastructure, Planning and Natural Resources (DIPNR), 2003. Groundwater Monitoring Guidelines for Mine Sites within the Hunter Region; and 	The Laboratory reports did not state compliance with these requirements. Subsequent to the audit, ALS provided confirmation that the required standards are met and that future laboratory reports would quote these standards.	Compliant																																																								
	<ul style="list-style-type: none"> • procedures for environmental monitoring and evaluation outlined in the Environmental Management Strategy (EMS) for Baal Bone Colliery. 	EMS was reviewed by the auditors	Compliant																																																								
4.1.1	All groundwater monitoring data will be retained in an appropriate format on site and will be used to review the effectiveness of the Baal Bone Colliery water management system on an ongoing basis.	Groundwater monitoring data kept in an Excel spreadsheet on site. (Cox's Swamp Piezos)	Compliant																																																								
4.1.1	A monthly review and assessment of groundwater monitoring data will be undertaken in accordance with the protocols outlined in Section 5.0 and will include consideration of relevant meteorological and rainfall data.	Aurecon report the levels and water quality reported by ALS. Noted by the auditors	Compliant																																																								
4.1.3	<table border="1"> <thead> <tr> <th>Piezo ID</th> <th>Water Level</th> <th>pH</th> <th>Electrical Conductivity (µS/cm)</th> <th>Copper</th> <th>Zinc</th> <th>Iron</th> <th>Speciation</th> </tr> </thead> <tbody> <tr> <td>BBP1</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Quarterly</td> </tr> <tr> <td>BBP2</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Quarterly</td> </tr> <tr> <td>BBP3</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Quarterly</td> </tr> <tr> <td>BBP4</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Quarterly</td> </tr> <tr> <td>BBP5</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Quarterly</td> </tr> <tr> <td>BBP6</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Monthly</td> <td>Quarterly</td> </tr> </tbody> </table>	Piezo ID	Water Level	pH	Electrical Conductivity (µS/cm)	Copper	Zinc	Iron	Speciation	BBP1	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Quarterly	BBP2	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Quarterly	BBP3	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Quarterly	BBP4	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Quarterly	BBP5	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Quarterly	BBP6	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Quarterly	Groundwater monitoring data reviewed by the auditors (Cox's Swamp Piezos)	Compliant
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Reference	Requirement	Evidence	Audit Finding
Groundwater Monitoring Plan (September 2012)			
4.1.3	Speciation monitoring will be undertaken quarterly during the care and maintenance phase to monitor minor variations in water quality, until such time when mining recommences and monitoring will be returned to monthly.	Speciation is undertaken monthly. (Cox's Swamp Piezos spreadsheet)	Compliant
4.1.3	The Baal Bone Colliery Environment and Community Officer (ECO) will be responsible for the monthly review of the monitoring results and associated trends in groundwater quality.	ECO reports to the Operations Manager. Noted by the auditors	Compliant
	In the event that any groundwater quality measurement is found to deviate from background trends and/or is outside the adopted trigger values presented in Table 3.1, the Baal Bone Colliery ECC will be responsible for initiating further site-specific investigations in accordance with the Determination of Groundwater Quality TARP Trigger Values (Aurecon, 2009a).	Ongoing for the bores.	Compliant
4.1.3	All monitoring data will be retained in an appropriate format on site and will be used to review the effectiveness of the Baal Bone Colliery water management system on an ongoing basis.	Groundwater monitoring data kept in an Excel spreadsheet on site. (Cox's Swamp Piezos)	Compliant
4.1.4	In the event that seepage is identified from a component of the water management system (i.e. mine voids, tailings dams and water storage dams), and that seepage is likely to either leave the site or enter a sensitive location, Baal Bone Colliery will conduct due diligence monitoring (i.e. leachate monitoring), in addition to routine surface water quality monitoring (refer to Surface Water Monitoring Plan), downstream of the seepage location and assess results based on groundwater quality criteria, to determine the requirement for any necessary actions.	Noted by the auditors	Not triggered
4.1.4	Seepage from water management system components will be estimated as part of the calculation of the detailed site water balance. Consideration for seepage/leachate management will be considered as part of Mine Closure Planning and final landform and drainage design.	Noted by the auditors	Not triggered
4.2 Assessment and Response			
4.2.1	The groundwater inflow predictions for Baal Bone Colliery will be validated by a qualified groundwater consultant every two years, or if significant changes to mining operations occur, in conjunction with the review of the Baal Bone Colliery Water Management Plan.	During the audit period the operations have ceased meaning in the current model version is still current. It is recommended that when the Water Management Plan is next reviewed, the qualified groundwater consultant should review the model.	Non-compliant
	The predictions will be validated against historical monitoring data collected as part of the Groundwater Monitoring Plan.	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Groundwater Monitoring Plan (September 2012)			
4.2.1	As part of the closure process Baal Bone Colliery will identify likely groundwater inflows and interactions within the underground workings, with the objective of developing specific ongoing management measures if required (e.g. control of groundwater fill and spill from underground workings).	Noted by the auditors	Not triggered
4.2.2	Environmental incidents will be managed in accordance with XCN SD GDL 15.0 – Incident Management and BBN SD GDL 0020 Hazard and Incident Management, which has been developed to:	Noted	
	• define and categorise environmental incidents;	Noted	
	• manage sustainable development hazards and incidents to minimise damage to people, environment, community and other assets; and	Noted	
	• identify factors that contributed to incidents through an investigation process and to learn from those events and prevent reoccurrence.	Noted	
4.2.2	Baal Bone Colliery will record and investigate all environmental incidents. The details and final investigation results from all environmental incidents must be recorded on Baal Bone Colliery Incident Report Form & Community Complaint Form (BBN SD FRM 0055) and provided to Environment and Community Officer for review. All environmental incidents are to be recorded in XtraSafe.	View incident documentation and Xtrasafe entries	Compliant
	In accordance with Condition 5 of Schedule 5 of the Project Approval, the proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident.	Incidents reported in XtraSafe database. The auditors have sighted the incident report submitted to DoP on 15/02/2013 regarding the leaking pipeline (occurred on 14/02/2013).	Compliant
	Within 7 days of the date of the incident, Baal Bone Colliery shall provide the Director-General and any other relevant agencies with a detailed report on the incident.	Noted, where timing was not met on the incident reports reviewed, timing had been agreed with the DP&I prior to the due date.	Compliant
	The report will include the following details:	Noted	
	• the date, time and nature of the exceedance/incident;	The incident reports reviewed complies with this requirement	Compliant
	• identify the likely cause of the exceedance/incident;	The incident reports reviewed complies with this requirement	Compliant
	• description of the response action that has been undertaken to date; and	The incident reports reviewed complies with this requirement	Compliant

Reference	Requirement	Evidence	Audit Finding
Groundwater Monitoring Plan (September 2012)			
	<ul style="list-style-type: none"> description of the proposed measures to address the exceedance/incident. 	The incident reports reviewed complies with this requirement	Compliant
	Environmental incidents are managed and communicated in accordance with XCN SD ANN 0050 16.1 Measurement and Reporting Annexure and HSEC Measurement and Reporting (BBN SD GDL 0023).	Noted, observed for sample incidents at site.	Compliant
4.2.2	In addition to reporting required by Condition 5 of Schedule 5 of the Project Approval, incidents resulting or having the potential to result in material harm to the environment (as defined by Section 147 of the POEO Act) shall be reported to the following authorities immediately, in accordance with the Baal Bone Colliery Pollution Incident Response Management Plan:	Noted	
	<ul style="list-style-type: none"> the Environment Protection Authority (EPA); 	Notified when required through the audit period	Compliant
	<ul style="list-style-type: none"> the Ministry of Health via the local Public Health Unit; 	No notification required during the audit period.	Not triggered
	<ul style="list-style-type: none"> WorkCover; 	No notification required during the audit period.	Not triggered
	<ul style="list-style-type: none"> the Local Authority (Council); and 	No notification required during the audit period.	Not triggered
	<ul style="list-style-type: none"> NSW Fire and Rescue. 	No notification required during the audit period.	Not triggered
4.2.2	In the case where immediate threat to human health or property has been identified, contact NSW Fire and Rescue as a first priority.	Not in the audit period	Not triggered
	The decision on whether to notify should not delay immediate actions to ensure the safety of people or contain a pollution incident. However, incident notification should be made as soon as it is safe to do so.	Not in the audit period	Not triggered
	The information about a pollution incident that must be notified includes:		
	<ul style="list-style-type: none"> the time, date, nature, duration and location of the incident; 	Not in the audit period	Not triggered
	<ul style="list-style-type: none"> the location of the place where pollution is occurring or is likely to occur; 	Not in the audit period	Not triggered
	<ul style="list-style-type: none"> the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known; 	Not in the audit period	Not triggered
<ul style="list-style-type: none"> the circumstances in which the incident occurred, including the cause of the incident, if known; and 	Not in the audit period	Not triggered	

Reference	Requirement	Evidence	Audit Finding
Groundwater Monitoring Plan (September 2012)			
	<ul style="list-style-type: none"> the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known. 	Not in the audit period	Not triggered
4.2.3	Baal Bone Colliery operates an incident reporting and inquiry telephone line (02 6350 6900) advertised to the public via the Baal Bone website, the EPA and public notices such as newsletters. Community complaints are forwarded to the Environment and Community Officer and managed in accordance with BBN SD PRO 0012 Community Complaints Management Procedure.	Noted, complaints system operates but no complaints in the audit period.	Compliant
4.2.3	<p>The Environment and Community Officer is responsible for the complaint management process, including:</p> <ul style="list-style-type: none"> Acknowledging all complaints, responding to the complainant within 24 hours (where practicable); Registering all complaints in Xstrasafe; Investigating complaints impartially giving proper consideration to the facts and the circumstances prevailing at the time; Implementing corrective actions if required; and Reporting to relevant stakeholders the investigation outcomes and corrective actions taken. 	Noted, complaints system operates but no complaints in the audit period.	Compliant
4.2.3	Details and number of complaints are reported annually in the Annual Review and in the Annual Return for EPL 765 in accordance with Baal Bone's reporting requirements. As per Project Approval 09_0178 a complaints register (updated quarterly) is published on the Baal Bone webpage.	Noted, complaints system operates but no complaints in the audit period.	Compliant
4.2.4	The Baal Bone Colliery Environment and Community Officer is responsible for preparing information for internal communication and reporting. Water management information will also be provided to Xstrata Coal NSW (XCN) for the following purposes:	Noted by the auditors	Compliant
	<ul style="list-style-type: none"> Xstrata Sustainability Database (XSD); and 	Noted by the auditors	Compliant
	<ul style="list-style-type: none"> Monthly Environment and Community Status Report. 	Noted by the auditors	Compliant
4.2.4	All water pollution incidents or non-conformances with legislative requirements will be reported internally in accordance with the Baal Bone Colliery EMS and EPL 765 reporting requirements.	Noted by the auditors	Compliant
	A summary of the surface water and groundwater monitoring results will be provided in the Annual Review report. The following information will be reported in the Annual Review report in accordance with the Project Approval conditions (refer to Table 2.1):	Noted, summary is present	Compliant

Reference	Requirement	Evidence	Audit Finding
Groundwater Monitoring Plan (September 2012)			
4.2.5	<ul style="list-style-type: none"> a summary of monitoring results (surface water, groundwater, channel stability and stream health); 	Groundwater, Surface water monitoring provided however no review of channel stability and stream health.	Non-compliant
	<ul style="list-style-type: none"> an analysis of monitoring results against impact assessment criteria, historical monitoring results and predictions in the EA; 	Groundwater against TARP, comparison against EA. Surface Water monitoring measured to EPL concentrations, compared to EA and historical results from the previous year.	Compliant
	<ul style="list-style-type: none"> an identification of any trends in the monitoring results; 	Citing trends in GW monitoring levels.	Compliant
	<ul style="list-style-type: none"> the site water balance; 	The site water balance is not included in the 2012 AEMR.	Non-compliant
	<ul style="list-style-type: none"> any non-compliances reported during the year; and 	Groundwater non-compliances reported for 2012 (Cu and Zn exceedences). Iron exceedance at LD6 reported for surface water.	Compliant
	<ul style="list-style-type: none"> actions taken to address any non-compliances 	Groundwater action outlined (initial and formal notifications to principle subsidence engineer and DPI). Surface water investigation occurred for LD6	Compliant
4.2.5	<p>In addition, any significant findings regarding the implementation of the WMP will be reported in the Annual Review report, which may include:</p> <ul style="list-style-type: none"> the effectiveness of the erosion and sediment controls; 	Effectiveness and performance reported in 2012 AEMR	Compliant
	<ul style="list-style-type: none"> changes to the site water balance; and 	It is recommended that changes to the site water balance be included in the 2013 AEMR.	Non-compliant
	<ul style="list-style-type: none"> any identified issues or exceedences of impact assessment criteria (trigger values). 	Groundwater non-compliances reported for 2012 (Cu and Zn exceedences). Iron exceedance at LD6 reported for surface water.	Compliant

Reference	Requirement	Evidence	Audit Finding
Groundwater Monitoring Plan (September 2012)			
4.2.5	The Annual Review report will also document community complaints and incidents relating to the performance, maintenance and/or failure of the Baal Bone Colliery water management system.	No community complaints have eventuated regarding water management system during the audit period.	Compliant
4.2.5	Additionally, in accordance with Condition 9, Schedule 5 of the Project Approval, Baal Bone Colliery will regularly report environmental monitoring results on its website.	Quarterly Environmental Monitoring Summaries available on website. Environmental EPL reporting is available on the website.	Compliant
4.2.6	Site water management issues of interest to the community will be addressed in community consultation meetings in accordance with the Baal Bone Colliery Social Involvement Plan (SIP).	Noted by the auditors	Compliant
	Specific issues relating to individual landowners and residents will be addressed directly by the Baal Bone Colliery Environment and Community Officer as required.	Noted by the auditors	Compliant
4.2.6	A copy of the water monitoring results reported in the Annual Review will be made available to the public.	Environmental EPL reporting is available on the website.	Compliant
5. REVIEW AND IMPROVEMENT			
5	Ongoing monitoring and review on the performance and implementation of this GWMP will be undertaken in accordance with XCN SD GDL 16.0 Monitoring and Review and the Baal Bone Colliery Environmental Management Strategy.	Noted by the auditors	Compliant
5	The Environment and Community Officer will review this GWMP and supporting plans and resubmit to DP&I every year or earlier if required.	Development of draft document for submission to DP&I (by Umwelt) occurred on 21/9/12. Letter reviewed from 2013 citing a review but no necessary changes to the Plan.	Compliant
	Any changes made to the GWMP as a result of the review will be made in consultation with OEH, DTIRIS and NOW.	Noted by the auditors	Compliant
	A copy of the revised GWMP will be supplied to the Director General of DP&I for approval.	Noted by the auditors	Compliant
	The GWMP will reflect changes in environmental requirements, technology and operational procedures.	Noted by the auditors	Compliant
	The WMP will be made publicly available on the Baal Bone Colliery website	Not on the website as it is still in draft	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Groundwater Monitoring Plan (September 2012)			
5	Within 3 months of the submission of an:	Noted	
	(a) audit report under condition 8 of schedule 5;	Revisions of numerous plans occurred in 2012 as a result of 2011 IEA.	Compliant
	(b) incident report under condition 5 of schedule 5; and	Reports were reviewed by the auditors	Compliant
	(c) annual review under condition 3 of schedule 5, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.	2013 review constituted a revision of the Biodiversity and Land Management Plan as per the letter submitted to notify the D-G on 16/05/2013	Compliant
7. ACCOUNTABILITIES			
Operations Manager	Providing adequate resources to undertake the activities required by this program; and	Noted	Compliant
	Approving revisions of this plan.	Noted	Compliant
Environment and Community Officer	Ensuring adequate resources are available to implement the requirements of this plan;	Noted	Compliant
	Approving revisions of this plan;	Noted	Compliant
	Consulting with relevant government departments as required;	Noted	Compliant
	Providing information to Senior Project Manager and/or Operations Manager regarding reporting requirements for external agencies;	Noted	Compliant
	Coordinating the monitoring required by this plan, and additional monitoring if required;	Noted	Compliant
	Investigating non-compliances or near non-compliances with groundwater monitoring requirements and criteria;	Noted	Compliant
	Completing monthly reporting requirements as per this plan; monitoring of actions from non-compliances; and	Noted	Compliant
Coordinating reviews of this plan.	Noted	Compliant	
All employees and Contractors	Undertaking all activities in accordance with this plan.	Noted	Compliant

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
2. PLANNING			
2.1 Project Approval			
2.1	The Erosion and Sediment Control Plan must:	Noted	
	(a) be consistent with the requirements of the Managing Urban Stormwater, Soils and Construction Volume 2E Mines and Quarries (DECCW, 2008), or its latest version;	The plan was developed by a suitably qualified expert who has extensive experience in the DECCW 2008 Reference.	Compliant
	(b) identify activities that could cause soil erosion and generate sediment;	Review confirms	Compliant
	(c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;	Review confirms	Compliant
	(d) describe the location, function, and capacity of erosion and sediment control structures; and	Review confirms	Compliant
	(e) describe what measures would be implemented to maintain the structures over time.	Review confirms	Compliant
2.2 Stakeholder Consultation			
2.2	The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must:	27/10/2013 the letter of approval was received from the D-G.	Compliant
	(a) be prepared in consultation with DECCW, I&I NSW and NOW by suitably qualified expert/s whose appointment/s have been approved by the Director-General;	Copies of the Plan sent to DoP, OEH, NoW and DTIRIS on 2 October 2011.	Compliant
	(b) be submitted to the Director-General for approval prior to carrying out any construction on site; and	No construction has been carried out.	Not triggered
	(c) include: <ul style="list-style-type: none"> • a detailed Site Water Balance; • the Ben Bullen Creek Natural Channel Design and Restoration Plan; • an Erosion and Sediment Control Plan; • a Surface Water Monitoring Program; • a Groundwater Monitoring Plan; and • a Surface and Ground Water Response Plan. 	Completed and submitted as an interim and will be submitted as a final as is allowed under the staged submission.	Not triggered
3. BASELINE DATA			
3.3 Sources of Erosion and Sediment			
3.3	If Baal Bone Colliery were to recommence operations, activities that could have the potential to generate sediment and impact on the surrounding catchment areas if not appropriately managed are:	Operations suspended at the time of the audit	Not triggered

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
3.3	<ul style="list-style-type: none"> the clearing of land ahead of mining related activities; the management and rehabilitation of tailings, coarse reject and overburden emplacement areas; coal stockpiles and coal handling equipment including mobile equipment, coal crushing equipment and conveyors; runoff from the construction and maintenance of haul roads; runoff from the construction and maintenance of internal access roads; vehicle and equipment movements; creek restoration and rehabilitation; rehabilitation or preparation of disturbed areas; and disturbed areas not yet rehabilitated. 	Operations suspended at the time of the audit	Not triggered
4. IMPLEMENTATION			
4	Erosion and sediment controls will be implemented to mitigate the impacts of the complex on nearby watercourses and the surrounding environment. Standard erosion and sediment control techniques will be used in accordance with the requirements of Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom, 2004) and Volumes 2A, 2C, 2D and 2E (DECC, 2008) (the Blue Book).	No work required in the audit period	Not triggered
4	Due to the operation currently being under care and maintenance, if Baal Bone Colliery recommences operations, the construction and maintenance of any new erosion and sediment controls will be undertaken in accordance with the design requirements outlined in this plan.	Noted	Not triggered
4.1 General Erosion and Sediment Control Principles			
	Baal Bone Colliery will implement a range of general erosion and sediment controls in accordance with the Blue Book. These general controls have been designed to control and manage erosion and sediment that may result from mining and related activities. The measures that will be implemented include the following:	Noted	
	<ul style="list-style-type: none"> installation of erosion and sediment control measures as the first step in the process for land disturbance as outlined in the XCN Ground Disturbance Permit process; 	Noted and observed in GDP documentation	Compliant
	<ul style="list-style-type: none"> minimising all disturbed areas and stabilisation by progressive rehabilitation/stabilisation as soon as practicable; 	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
	<ul style="list-style-type: none"> clearly identifying and delineating areas required to be disturbed and ensuring that disturbance is limited to those areas. Clearing as little vegetation as required, leaving mulch on cleared areas as late as possible and minimising machinery disturbance outside of these areas. Also leaving topsoil on ground with mulch incorporated to protect underlying dispersive horizons; 	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
4.1	• construction of diversion banks upslope of areas to be disturbed to direct clean water runoff away from disturbed areas where practical. The diversion banks will be designed to ensure effective segregation of sediment-laden runoff and convey clean surface water to natural watercourses;	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
	• applying soil ameliorants (e.g. gypsum), where required, to reduce the dispersibility of the subsoils that will be disturbed and to minimise the potential for tunnel erosion and surface rilling of disturbed or reshaped areas. The application rate of soil ameliorant is to be determined by soil analysis as required, which may include the completion of a Emerson Aggregate Test. Application rates are also to be determined in consideration of the requirements contained within the Blue Book;	All soils are tested prior to topsoil replacement. Gypsum and other ameliorants added as required.	Compliant
	• construction of catch drains to capture runoff from disturbed areas and direct runoff into sediment dams;	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
	• construction of other erosion and sediment control measures such as sediment fences and sediment dams within the catchment area;	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
	• construction of drainage controls such as table drains at roadsides and on hardstand areas and toe drains on stockpiles and overburden emplacement areas;	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
	• interception of runoff from disturbed catchment areas in pit floors or sediment dams;	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
	• construction of sediment dams to capture runoff from infrastructure areas (refer to Appendix A);	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
	• adding flocculent to dams, where required, to aid the settlement of entrained sediment (refer to Appendix A);	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
	• placement of geotextile liners and rock check dams in drains as required to reduce water velocities and prevent scouring (refer to Appendix A);	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
• applying soil stabilisation additives (e.g. bitumen spray, hydromulch, straw mulch, etc.) as required to promote a rapid cover of vegetation in areas that are exposed and prone to erosion;	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant	

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
	• construction of graded banks over final reshaped overburden areas to minimise erosion and re-direct runoff to catch drains and water disposal areas;	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
	• inspections of erosion and sediment controls will be undertaken monthly and immediately after storm events in excess of 50 mm in 24 hours, to ensure erosion and sediment controls are performing adequately;	Incorporated as a part of the weekly work orders	Compliant
	• the placement of topsoil stockpiles away from mining, traffic areas and watercourses;	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
	• the selection of level or gently sloping areas as stockpile sites to minimise erosion and potential soil loss where possible;	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
	• the installation of appropriate sediment controls upslope of stockpiles to divert water around and downslope of stockpiles to prevent soil loss;	No new disturbed areas in the audit period. Some minor areas rehabilitated.	Compliant
	• stockpiles will generally be less than three metres high and will be set out in windrows to maximise surface exposure and biological activity;	Stockpiles on site do not conform to the requirement. Any future stockpiles should conform to this requirement.	Non-compliant
	• establishing a vegetation cover on soil stockpiles if stored for longer than three months; and	There are topsoil stockpiles that haven't been reseeded that were in place before the audit period. Should be hand seeded at an appropriate time of year (Autumn).	Non-compliant
	• undertake immediate repair or redesign of erosion and sediment controls that are not performing adequately, as identified in field inspections.	None identified in the audit period	Not triggered
4.2 Construction and Maintenance Activities			
4.2	Prior to the commencement of any construction activities at Baal Bone Colliery, an XCN Ground Disturbance Permit (XCN SD FORM 8.4.004) is required to be completed for the scope of works and approved by the Environment and Community Officer.	No construction areas occurred.	Not triggered
	The Ground Disturbance Permit (GDP) is to outline the erosion and sediment control measures that will be implemented for the construction works to ensure polluted water is not discharged from the site or allowed to contaminate clean water systems	Noted and observed in GDP documentation	Compliant

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
4.2	All GDPs for rehabilitation and restoration activities are to be developed in accordance with the Blue Book and the erosion and sediment control principles outlined within this Plan.	Noted	
	The general recommendations of the Blue Book in regard to sediment and waste control indicate that where the average annual soil loss from the total area of land disturbance is less than 150 m ³ per year a sediment dam may not be required.	Noted	
	For these areas, where a sediment dam is potentially not required, other control measures can be used to ensure that pollution does not occur to downslope receiving waters (as per Section 6.3.2 of Volume 1 of the Blue Book (Landcom, 2004)).	Noted	
4.3 Site Specific Strategies			
4.3.1	An XCN Ground Disturbance Permit (XCN SD FORM 8.4.004) must be completed for all construction or clearing activities to detail the erosion and sediment control measures to be implemented for that activity.	Only relevant activities in the audit period were for the removal of the SE Vent Fan and associated infrastructure. GDP sighted for this work.	Compliant
	For large construction/clearing activities, the site is to be separated into smaller areas to enable the detailed documentation of erosion and sediment control measures for the different elements of construction/clearing and different catchment areas.	No large clearing in the audit period	Not triggered
4.3.1	The completed Ground Disturbance Permit is to be reviewed by the Environment and Community Officer prior to the commencement of any surface disturbance works, with specialist advice to be sought by the Environment and Community Officer as required.	Noted, ECO sign-off on GDP review noted.	Compliant
4.3.1	The permit is to include a work program which contains detailed erosion and sediment control information for each stage/area of the activity and may include (but not be limited to) the following:	Noted	
	<ul style="list-style-type: none"> • an Erosion and Sediment Control Drawing, which includes the following: <ul style="list-style-type: none"> - features of the site including contours and drainage paths; - different stages of construction (e.g. initial clearing, topsoil stripping, etc.); - all permanent and temporary erosion and sediment control measures, including the control measures to be implemented in advance of, in conjunction with, clearing and grubbing operations; - relevant construction details of all erosion and sediment control structures; and - site stabilisation methods; 	GDP documentation includes this	Compliant
	<ul style="list-style-type: none"> • information on ground cover, soil type and compaction requirements; 	GDP documentation includes this	Compliant
	<ul style="list-style-type: none"> • design calculations and key design assumptions for sediment control features such as sediment dams, including size of catchment area and proportion disturbed; 	GDP documentation includes this	Compliant

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
	<ul style="list-style-type: none"> • an order of works based upon stabilisation of all areas of high erosion hazard at the earliest practical stage; 	GDP documentation includes this	Compliant
	<ul style="list-style-type: none"> • proposed time schedules for construction of structures and implementation of measures to control erosion and sedimentation; 	GDP documentation includes this	Compliant
	<ul style="list-style-type: none"> • reference to monitoring and maintenance procedures, including details of any water quality testing required; 	GDP documentation includes this	Compliant
	<ul style="list-style-type: none"> • rehabilitation requirements (e.g. seeding and fertiliser rates); and 	GDP documentation includes this	Compliant
	<ul style="list-style-type: none"> • standard document control information (e.g. date developed, person authorising the procedure and version number). 	GDP documentation includes this	Compliant
4.3.1	For construction activities, the Ground Disturbance Permit will be incorporated into Construction/Safe Works Method Statements and no earthworks or excavations are to proceed on any construction area until the contractor has installed the measures detailed within the Ground Disturbance Permit for erosion and sediment control.	The Vent Shaft GDP was included as part of the construction/demolition documentation	Compliant
	Ground Disturbance Permits will be progressively amended where necessary to accommodate changed construction activities, landforms, drainage paths and other conditions.	Noted	
4.3.2	In accordance with best practice topsoil management, topsoil stripping within areas proposed to be disturbed is to be undertaken (where practicable) when the soil is in a slightly moist condition thus reducing damage to soil structure and dust emissions.	No topsoil stripping occurred in the audit period	Not triggered
	Prior to topsoil stripping operations, the area to be stripped will be delineated on a plan and in the field through the use of survey pegs. Topsoil limits and the stripping depth will be shown on the pegs.	No topsoil stripping occurred in the audit period	Not triggered
4.3.2	Stripped topsoil will be transported to completed sections of the final landform (where available) for immediate spreading if operational sequences, equipment scheduling and weather conditions permit. Where this is not possible, topsoil will generally be transferred to stockpiles within the perimeter of the dirty water management system and seeded depending on expected stockpile life.	No topsoil stripping occurred in the audit period	Not triggered
	If new topsoil stockpiles are required or maintenance work is to be undertaken on existing stockpiles, the design requirements will include: <ul style="list-style-type: none"> • If topsoil is to be stockpiled for longer than three months, stockpiles are to be a maximum height of three metres and a maximum batter slope of 1:2 (vertical: horizontal) is to be maintained to preserve biological viability and reduce soil deterioration where possible. 	No topsoil stripping occurred in the audit period	Not triggered
	<ul style="list-style-type: none"> • Topsoil will preferentially be stored in previously cleared areas. 	No topsoil stripping occurred in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
4.3.2	• The stockpiles will be grassed with sterile grass species. Vegetation stockpiles (where available) can be established adjacent to topsoil stockpiles to provide additional erosion protection.	No topsoil stripping occurred in the audit period	Not triggered
	• Maintenance of the stockpiles is to include weed control and fertilising if required. Stockpiles are to be clearly identified with enough signage to reduce the likelihood of vehicular interaction, contamination and soil loss.	Stockpiles are not signposted, however the open cut is no longer active and vehicle movement in the areas of the stockpile is restricted to a small number of personnel who are trained in appropriate vehicle management in rehab areas (generally only Maintenance and Environment personnel)	Compliant
	Runoff water that is generated on site in dirty water catchments is either treated or diverted through the Baal Bone Colliery water management system to minimise the impact on the environment.	Observed on the site inspection.	Compliant
4.3.3	The Blue Book states in Chapter 6 - Sediment and Waste Control that "...ensuring that pollution does not occur to downslope receiving water is essential.	Dirty water system captures the dirty water.	Compliant
	To this end, treated discharge waters should not contain more than 50 milligrams per litre of suspended solids in the design rainfall event.	No exceedences of TSS	Compliant
	More stringent requirements might be necessary in particularly sensitive environments or, where applicable, can be required by Council's stormwater management plan. Of course, all practical measures to reduce pollution should be taken for storm events beyond the design event".	Noted	Not triggered
4.3.3	In addition, the Blue Book states in Chapter 6 - Sediment and Waste Control that "The actual discharge load should be considerate of the loads normally carried in the receiving waters, including those during and following storm events.	Noted	
	Any fluvial processes within these waters will have reached equilibrium considerate of those loads. Reducing them significantly below these levels can cause streams to become "hungry" and erode their own bed and banks; whilst increasing them significantly can result in degradation to ecosystems".	Noted	Not triggered
	If necessary, flocculation will be used to improve the quality of sediment laden water to less than 50 mg/L of Total Suspended Solids (TSS) prior to discharge (in accordance with the Blue Book).	Noted	Not triggered

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
4.3.3	All discharges from the site will be managed in accordance with the processes outlined in the Water Management Plan and water quality parameters outlined in the Surface Water Monitoring Program.	Water Management Plan and Surface Water Monitoring Program were reviewed by the auditors	Compliant
4.3.4	Works within watercourses and riparian zones will only commence after the necessary approvals have been sought (where required).	Not in the audit period	Not triggered
	When work is required within watercourses, work will be in accordance with guidelines from Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom, 2004) and Volumes 2A, 2C, 2D and 2E (DECC, 2008) (the Blue Book), including:	Not in the audit period	Not triggered
	• works within the riparian zone will maximise, where possible the preservation of any existing vegetation and minimise site disturbance;	Not in the audit period	Not triggered
	• designs for works within or near water bodies should ensure the retention of natural functions and maintenance of fish passage in accordance with NSW Fisheries Guidelines (undated) Fish Friendly Waterway Crossings;	Not in the audit period	Not triggered
	• when designing individual catchment configurations, retain naturally functioning streams and drainage lines, avoid aggregation of several subcatchments and clearly define maintenance requirements prior to construction;	Not in the audit period	Not triggered
	• hay bales will not be used for sediment control as hay bales can promote weed growth within waterways;	Not in the audit period	Not triggered
	• planned works will be scheduled for forecasted dry weather periods; and	Not in the audit period	Not triggered
4.3.5	Where temporary waterway crossings are required, construction of these will be in accordance with guidelines outlined in Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom, 2004) and Volumes 2A, 2C, 2D and 2E (DECC, 2008) (the Blue Book and NSW Fisheries Guidelines (undated) Fish Friendly Waterway Crossings).	Not in the audit period	Not triggered
	Where new access tracks are required, construction of these in accordance with Guidelines for the planning, construction and maintenance of tracks published by Department of Land and Water Conservation (1994), including:	Forestry Tracks were used to repair some cracking and works were approved by State Forests. No new tracks were created on site during the audit period.	Not triggered

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
4.3.6	• construction of access tracks along the contour where possible (i.e. limit grade changes);	Forestry Tracks were used to repair some cracking and works were approved by State Forests. No new tracks were created on site during the audit period.	Not triggered
	• minimising disturbance of existing ground, e.g. where possible limiting works to slashing vegetation when constructing tracks;	Forestry Tracks were used to repair some cracking and works were approved by State Forests. No new tracks were created on site during the audit period.	Not triggered
	• limiting construction of access tracks across existing drainage lines;	Forestry Tracks were used to repair some cracking and works were approved by State Forests. No new tracks were created on site during the audit period.	Not triggered
	• maintaining vegetation buffers between access tracks and watercourses where possible;	Forestry Tracks were used to repair some cracking and works were approved by State Forests. No new tracks were created on site during the audit period.	Not triggered
	• ensuring tracks are free draining; and	Forestry Tracks were used to repair some cracking and works were approved by State Forests. No new tracks were created on site during the audit period.	Not triggered
	• include cross fall and outfall drainage, where required, to prevent concentration of runoff.	Forestry Tracks were used to repair some cracking and works were approved by State Forests. No new tracks were created on site during the audit period.	Not triggered
	In accordance with the MOP, the final rehabilitated landform requirements have been designed to maintain consistency with the topography of the local area. As part of the rehabilitation process, all areas disturbed for mining will be backfilled (with exception of final void), reshaped, covered with topsoil (where available) or an alternative surface ameliorant, prior to revegetation.	Not in the audit period	Not triggered
	Elements such as ridgelines and emplacements will be shaped in an undulating informal profile, keeping with the natural landforms of the surrounding environment.	Noted	Compliant

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
4.3.7	The final landform will be designed and constructed as a self draining landscape and will minimise the slope gradients and lengths. In particular, cut and fill batters for access road and earthworks will be constructed at a maximum slope of 1:3 (vertical: horizontal), where possible, to maximise long term stability.	Current final Mine Plan from the MOP complies with this.	Not triggered
	As outlined in the Baal Bone Continued Operations Environmental Assessment, the final landform of overburden emplacement areas will predominantly consist of slopes of 10 degrees or less and will increase up to a maximum of 14 degrees, consistent with DTIRIS guidelines.	See AEMR	Compliant
4.3.8	All disturbed areas will be progressively stabilised and revegetated, including:	No new disturbed areas in the audit period. Some minor rehab works.	Compliant
	• progressive rehabilitation of disturbed land as soon as practicable in accordance with the MOP;	There has been some rehabilitation in the Southern area.	Compliant
	• temporary rehabilitation to improve stability;	Not in the audit period	Not triggered
	• construction of drainage controls to improve the stability of rehabilitated land;	Not in the audit period	Not triggered
	• reshaping, topsoiling and vegetating of road cut, fill batters and other disturbed areas as soon as practical;	Not in the audit period	Not triggered
	• characterisation of soil to determine the ameliorant requirements (e.g. gypsum and/or lime);	Not in the audit period	Not triggered
	• construction and installation of erosion and sediment control structures such as sediment fences, catch drains and sediment basins down slope of rehabilitation areas;	Not in the audit period	Not triggered
	• reshaping, topsoiling and vegetating former areas used for earthworks, roads and batters as soon as practical upon completion of works;	Some reshaping of topsoil has occurred during the audit period. REA5 Cell 1 has been capped.	Not triggered
	• encourage rapid establishment of vegetative cover on all rehabilitation areas as a priority to minimise exposed subsoils;	No subsoils have been laid out in the audit period.	Not triggered
	• seeding and, where required, controlled fertilising of all disturbed areas to provide for rapid grass cover;	As such, in early 2012 re-seeding and fertilisation of approximately 15 hectares in the Northern Rehabilitation Area was conducted to improve the cover of eucalypts and native grasses.	Compliant

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
	<ul style="list-style-type: none"> maintain vegetation to reduce the potential for erosion; 	LFA has occurred as a part of the annual Rehabilitation Monitoring reports and Land Management Inspections	Compliant
	<ul style="list-style-type: none"> regular inspections and maintenance of all erosion and sediment control structures to ensure that they are operating in accordance with their design principles; 	Weekly and monthly inspections conducted.	Compliant
	<ul style="list-style-type: none"> regular maintenance of rehabilitated areas to minimise sedimentation; and 	Extra reseeding was carried out on areas where seed had not taken particularly well.	Compliant
	<ul style="list-style-type: none"> restricting access to rehabilitated areas through the use of fencing and/or signposting. 	No need to control access through fencing due to the lack of vehicle movements	Compliant
4.3.8	Rehabilitation areas are to be deep ripped (where possible) and roughened to increase infiltration and reduce rainwater runoff. Vegetative cover will be established over all disturbed areas such as road side verges, cut and fill batters around site roads and hard stand areas and other temporary areas of disturbance such as soil stockpiles.	Not in the audit period	Not triggered
4.4 Erosion and Sediment Control Structures			
4.4	The Baal Bone Colliery water management system has been designed to control and manage erosion and sediment transport through the construction and maintenance of a range of structures designed to prevent the discharge of polluted water off site. Where new erosion and sediment controls are to be implemented at Baal Bone Colliery or maintenance work is undertaken on existing structures the design requirement for new or refurbished structures will be in accordance with Appendices A and B of this document and the Blue Book.	Noted	
4.4.1	Clean water diversions will be constructed upslope of areas to be disturbed to convey clean water runoff away from disturbed areas and prevent water from entering active areas and the saline/dirty water systems.	No new drainage works in the audit period	Not triggered
	This clean water runoff will be diverted into nearby watercourses.	No new drainage works in the audit period	Not triggered
	Appropriate protection will be established where diverted waters enter watercourses through the use of level spreaders and, if required, additional planting of grass, small shrubs and riparian species to achieve the required bank stability.	No new drainage works in the audit period	Not triggered
4.4.1	Diversion drains are to be designed in accordance with the Blue Book to cater for a 20 year Average Recurrence Interval (ARI) storm event.	No new drainage works in the audit period	Not triggered
4.4.2	Catch drains will be established to convey runoff from the disturbed areas to sediment dams.	No new drainage works in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
4.4.2	All catch drains will be designed to convey peak discharges from a minimum of the critical duration 20 year ARI storm event in accordance with the Blue Book.	No new drainage works in the audit period	Not triggered
4.4.3	Sediment dams are to be constructed within dirty water catchments to capture and treat sediment laden water for treatment prior to discharge.	No new drainage works in the audit period	Not triggered
	Sediment dams will be installed where appropriate prior to any land disturbance activities occurring and maintained following completion.	No new drainage works in the audit period	Not triggered
	The design of each sediment dam will take into consideration the topsoil and overburden characteristics of the catchment, as well as any other potential pollutants (e.g. coal fines) (refer to Appendix A).	No new drainage works in the audit period	Not triggered
4.4.3	Sediment dam sizes for Baal Bone Colliery will then be determined in accordance with the Blue Book (Volumes 2A, 2C, 2D and 2E) for fine soils (i.e. type D or F) for construction and operational sediment dams (refer to Appendix A).	No new drainage works in the audit period	Not triggered
	Where sediment is known/expected to be dispersive, sediment dams will include a flocculation system to assist in settling fine particles.	No new drainage works in the audit period	Not triggered
	All sediment dams will be maintained in a drawn down state as far as practicable. This will be achieved by ensuring that water in the sediment dams is transferred to the water supply dams and used for dust suppression purposes on a priority basis.	Dirty water catchment dam is maintained in a draw down state	Compliant
4.4.3	Where a sediment dam is required the following should apply: • sediment dam design is to be in accordance with Table 2 of Appendix A;	No new drainage works in the audit period	Not triggered
	• sediment dams are to be maintained/managed in a drawn down state as far as practical to ensure the required settling zone is available (refer to Table 2 of Appendix A);	No new drainage works in the audit period	Not triggered
	• sediment dams will be maintained with sediment zone not encroaching on settling zone;	Not in the audit period, lack of works on the site and lower vehicle traffic has reduced sedimentation risks to structures. The only sediment removal was from the grit traps associated with stockpile areas	Not triggered
	• where sediment is known to be dispersive, a suitable flocculation system will be available for the dam to settle fine particles or water is to be pumped back into the mine water system;	Not in the audit period	Not triggered
	• where discharge is required in order to maintain sufficient surcharge capacity, the discharge is to be undertaken in accordance with the relevant site discharge procedure; and	Not in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
	• sediment dams are to be inspected and maintained as per Section 5.0.	Inspected weekly as per weekly environmental inspection and weekly work order.	Compliant
4.4.4	Sediment fences, sediment traps, rock checks and other temporary erosion and sediment control measures from the Blue Book will be installed in advance of, or in conjunction with, earthworks to prevent erosion, which may lead to sediment laden water leaving the site or entering clean water systems (refer to Appendix B).	No new civil/drainage works in the audit period.	Not triggered
	These temporary controls are intended to be used for short periods whilst more permanent erosion and sediment control structures are being implemented or during emergency scenarios where permanent structures are not deemed appropriate.	No new civil/drainage works in the audit period.	Not triggered
4.4.4	Sediment fences and other temporary controls are to be designed in accordance with the Blue Book.	No new civil/drainage works in the audit period.	Not triggered
	Where necessary, sediment fences or other temporary controls are to be installed immediately downstream of the areas to be disturbed.	No new civil/drainage works in the audit period.	Not triggered
	Sediment fences are to be installed along contours if practicable and the upslope catchment is to have a maximum grade of 1V:2H (vertical: horizontal).	No new civil/drainage works in the audit period.	Not triggered
	Sediment fences are to be constructed using geotextile filter fabric with structural posts to be spaced as a guide no more than 1.5 metres apart.	No new civil/drainage works in the audit period.	Not triggered
	Sediment fences are not to be installed in high flow areas where the effectiveness of the fences may be impeded (e.g. perpendicular across waterways or drains).	No new civil/drainage works in the audit period.	Not triggered
4.4.4	Where practicable, the catchment areas of sediment fences and other temporary controls are to be limited by constructing the fences or other controls with small returns at 20 metre intervals to create smaller contributing subcatchments. This is necessary as sediment fences and other temporary controls are prone to failure in larger storm events and should be designed to ensure a maximum of 50 L/s passes through the sediment fence during a storm event.	Not in the audit period	Not triggered
5. MEASUREMENT AND EVALUATION			
5.1 Inspections and Maintenance			
	The erosion and sediment controls at Baal Bone Colliery are to be inspected on at least a monthly basis in accordance with the Baal Bone Colliery Environmental Monitoring Register.	Inspections of all significant water quality control structures (dirty water dam, process water dam, overshot dam) inspections of drains and grit traps completed weekly (evidence sighted in "Daily" Work Order - actually weekly)	Compliant

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
5.1	The objectives of the ongoing monitoring and review process are to ensure: • that the erosion and sediment structures are inspected at a frequency commensurate with the level of risk that each of the respective structures address;	Structures are inspected weekly as per the weekly work order and Environment Weekly Inspection	Compliant
	• ensure maintenance works are conducted as required;	Work orders specify maintenance required if reading exceeds acceptable limits	Compliant
	• ensure sediment and erosion control features are checked prior to, during and following high rainfall events: and	Control features are inspected weekly as per the weekly work order and Environment Weekly Inspection following rainfall periods, noted in comments section and photos also taken and stored in individual rainfall event folders.	Compliant
	• that the program of erosion and sediment works implemented and the erosion and sediment control structures constructed at Baal Bone Colliery are effective.	Noted and observed during site inspection	Compliant
5.1	The requirements of the Baal Bone Colliery Environmental Monitoring Register include both routine/ongoing inspection requirements and episodic requirements that result from the dynamic nature of the mining operation.	Regular inspections and episodic inspections are following rainfall events.	Compliant
	During the life of the project at Baal Bone Colliery, monitoring of the erosion and sediment control measures will be undertaken on at least a monthly basis as well as during and after high rainfall events (greater than 50 millimetres of rainfall in 24 hours).	Control features are inspected weekly (weekly work order) and following rainfall periods, noted in comments section and photos also taken and stored in individual rainfall event folders. During rainfall events has not been deemed necessary in the audit period.	Compliant
	These inspections are to include, but not be limited to, the following: • water levels and general water quality in sediment dams;	Water level and clarity inspected in the weekly work order.	Compliant
	• silt build-up in sediment dams;	Volume of sediment inspected weekly (Environment Weekly Inspection)	Compliant
	• scouring or erosion in drainage lines;	No specific check for erosion in drainage lines	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
	<ul style="list-style-type: none"> the integrity of installed structures; 	Condition of structures is inspected weekly (weekly work order)	Compliant
	<ul style="list-style-type: none"> the presence of hydrocarbons in sediment dams or drainage lines; and 	Hydrocarbon presence inspected during weekly work order	Compliant
	<ul style="list-style-type: none"> revegetation progress of disturbed areas. 	Monthly inspections address revegetation progress.	Compliant
5.1	Water quality monitoring will also be undertaken as detailed in the Surface Water Monitoring Program and Groundwater Monitoring Program (Appendices 5 and 6 of the Baal Bone Colliery Water Management Plan). This includes the monitoring of water quality in sediment dams and erosion and sediment control structures with the potential to discharge off site.	Monitoring occurred during the audit period through weekly work order inspections and in response to rainfall events	Compliant
5.1	Erosion and sediment control structures are to be desilted before the efficiency of the structure is impeded.	Volume of sediment inspected weekly (Environment Weekly Inspection)	Compliant
	The sediment levels in the structures and the need for desilting will be determined through a visual assessment as part of the regular inspections.	Volume of sediment inspected weekly (Environment Weekly Inspection)	Compliant
	Where practical, sediment dams will be maintained in a drawn down state as much as possible to maximise the available storage capacity.	Noted by the auditors.	Compliant
	The need for drawing-down of water levels will also be assessed as part of the regular inspections of erosion and sediment controls.	Noted by the auditors.	Compliant
5.1	If inspections identify that the type, location or condition of the erosion and sediment control structures are ineffective, the control structure will be modified, repaired or replaced.	Work orders specify maintenance required if reading exceeds acceptable limits	Compliant
	If the ineffective erosion and sediment control structures cannot be addressed immediately, the timeframe for the modification, repair or replacement of the structures will be based on an assessment of the risk to the surrounding environment.	Not in the audit period	Not triggered
5.2 Corrective Actions			
5.2	Where a failure of erosion and sediment control structures has occurred, or an inspection identifies a non-compliance with this plan, the incident/non-compliance will be handled in accordance with the Baal Bone Colliery Surface Water and Groundwater Response Plan (refer to Appendix 7 of the Water Management Plan).	Not in the audit period	Not triggered
5.2	All actions will be entered into an online database to monitor completion and the effectiveness of the action.	Not in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
5.3 Environmental Incidents			
5.3	Environmental incidents will be managed in accordance with XCN SD GDL 15.0 – Incident Management and BBN SD GDL 0020 Hazard and Incident Management, which has been developed to:	Overtopping of the dirty water dam resulted in an incident onsite. No material harm to the environment but Xtrasafe employed and the issue was rectified.	Compliant
	• define and categorise environmental incidents;	Overtopping of the dirty water dam resulted in an incident onsite. No material harm to the environment but Xtrasafe employed and the issue was rectified.	Compliant
	• manage sustainable development hazards and incidents to minimise damage to people, environment, community and other assets; and	Overtopping of the dirty water dam resulted in an incident onsite. No material harm to the environment but Xtrasafe employed and the issue was rectified.	Compliant
	• identify factors that contributed to incidents through an investigation process and to learn from those events and prevent reoccurrence.	Overtopping of the dirty water dam resulted in an incident onsite. No material harm to the environment but Xtrasafe employed and the issue was rectified.	Compliant
5.3	Baal Bone Colliery will record and investigate all environmental incidents. The details and final investigation results from all environmental incidents must be recorded on Baal Bone Colliery Incident Report Form & Community Complaint Form (BBN SD FRM 0055) and provided to Environment and Community Officer for review. All environmental incidents are to be recorded in XtraSafe.	No incidents found on site that were not entered into the Xtrasafe system	Compliant
	In accordance with Condition 5 of Schedule 5 of the Project Approval, the proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident.	Incidents reported in XtraSafe database. The auditors have sighted the incident report submitted to DoP on 15/02/2013 regarding the leaking pipeline (occurred on 14/02/2013).	Compliant
	Within 7 days of the date of the incident, Baal Bone Colliery shall provide the Director-General and any other relevant agencies with a detailed report on the incident.	Noted, where timing was not met on the incident reports reviewed, timing had been agreed with the DP&I prior to the due date.	Compliant

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
5.3	The report will include the following details:	Noted	
	• the date, time and nature of the exceedance/incident;	The incident reports reviewed complies with this requirement	Compliant
	• identify the likely cause of the exceedance/incident;	The incident reports reviewed complies with this requirement	Compliant
	• description of the response action that has been undertaken to date; and	The incident reports reviewed complies with this requirement	Compliant
	• description of the proposed measures to address the exceedance/incident.	The incident reports reviewed complies with this requirement	Compliant
	Environmental incidents are managed and communicated in accordance with XCN SD ANN 0050 16.1 Measurement and Reporting Annexure and HSEC Measurement and Reporting (BBN SD GDL 0023).	Noted, observed for sample incidents at site.	Compliant
5.3.1	In addition to reporting required by Condition 5 of Schedule 5 of the Project Approval, incidents resulting or having the potential to result in material harm to the environment (as defined by Section 147 of the POEO Act) shall be reported to the following authorities immediately, in accordance with the Baal Bone Colliery Pollution Incident Response Management Plan:	Noted	
	• the Environment Protection Authority (EPA);	Notified when required through the audit period	Compliant
	• the Ministry of Health via the local Public Health Unit;	No notification required during the audit period.	Not triggered
	• WorkCover;	No notification required during the audit period.	Not triggered
	• the Local Authority (Council); and	No notification required during the audit period.	Not triggered
	• NSW Fire and Rescue.	No notification required during the audit period.	Not triggered
5.3.1	In the case where immediate threat to human health or property has been identified, contact NSW Fire and Rescue as a first priority.	Not in the audit period	Not triggered
5.3.1	The decision on whether to notify should not delay immediate actions to ensure the safety of people or contain a pollution incident. However, incident notification should be made as soon as it is safe to do so.	Not in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
5.3.1	The information about a pollution incident that must be notified includes:	Not in the audit period	Not triggered
	• the time, date, nature, duration and location of the incident;	Not in the audit period	Not triggered
	• the location of the place where pollution is occurring or is likely to occur;	Not in the audit period	Not triggered
	• the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known;	Not in the audit period	Not triggered
	• the circumstances in which the incident occurred, including the cause of the incident, if known; and	Not in the audit period	Not triggered
	• the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known.	Not in the audit period	Not triggered
5.4 Community Complaints			
5.4	Baal Bone Colliery operates an incident reporting and inquiry telephone line (02 6350 6900) advertised to the public via the Baal Bone website, the EPA and public notices such as newsletters. Community complaints are forwarded to the Environment and Community Officer and managed in accordance with BBN SD PRO 0012 Community Complaints Management Procedure.	Noted, complaints system operates but no complaints in the audit period.	Compliant
5.4	The Environment and Community Officer is responsible for the complaint management process, including: <ul style="list-style-type: none"> • Acknowledging all complaints, responding to the complainant within 24 hours (where practicable); • Registering all complaints in Xstrasafe; • Investigating complaints impartially giving proper consideration to the facts and the circumstances prevailing at the time; • Implementing corrective actions if required; and • Reporting to relevant stakeholders the investigation outcomes and corrective actions taken. 	Noted, complaints system operates but no complaints in the audit period.	Compliant
5.4	Details and number of complaints are reported annually in the Annual Review and in the Annual Return for EPL 765 in accordance with Baal Bone's reporting requirements. As per Project Approval 09_0178 a complaints register (updated quarterly) is published on the Baal Bone webpage.	Noted, complaints system operates but no complaints in the audit period.	Compliant
5.5 Reporting Requirements			
5.5	The specific reporting requirements relating to erosion and sediment control include:	Noted	
	• the effectiveness and performance of erosion and sediment control measures; and	Effectiveness and performance reported in 2012 AEMR	Compliant
	• complaints relating to the performance maintenance and/or failure of the erosion and sediment control structures.	No complaints were reported in the 2012 AEMR	Compliant

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
5.5	Other internal and external reporting regarding erosion and sediment control will be undertaken on an as-needs basis, in accordance with the Baal Bone Colliery environmental management system.	Not in the audit period	Not triggered
6. REVIEW AND IMPROVEMENT			
6	Ongoing monitoring and review on the performance and implementation of this ESCP will be undertaken in accordance with XCN SD GDL 16.0 Monitoring and Review and the Baal Bone Colliery Environmental Management Strategy.	EMS was reviewed by the auditors	Compliant
6	The Environment and Community Officer will review this ESCP and supporting plans and resubmit to DP&I every year or earlier if required.	Noted	Compliant
	Any changes made to the ESCP as a result of the review will be made in consultation with OEH, DTIRIS and NOW.	Not in the audit period	Not triggered
	A copy of the revised ESCP will be supplied to the Director General of DP&I for approval.	Not in the audit period	Not triggered
	The ESCP will reflect changes in environmental requirements, technology and operational procedures.	Noted	
	The WMP will be made publicly available on the Baal Bone Colliery website (http://www.xstratacoal.com/EN/Operations/Baalbone/Pages/BaalBone.aspx).	Not on the website as it is still in draft	Non-compliant
6	Within 3 months of the submission of an:	Noted	
	(a) audit report under condition 8 of schedule 5;	Revisions of numerous plans occurred in 2012 as a result of 2011 IEA.	Compliant
	(b) incident report under condition 5 of schedule 5; and	Reports were reviewed by the auditors	Compliant
	(c) annual review under condition 3 of schedule 5, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.	2013 review constituted a revision of the Biodiversity and Land Management Plan as per the letter submitted to notify the D-G on 16/05/2013	Compliant
8. ACCOUNTABILITIES			
Operations Manager	Ensure any potential or actual SD issue is reported in accordance with legal requirements and the corporate standard;	Noted	Compliant
	Authorise internal and external reporting requirements of this program; and	Noted	Compliant
	Authorise subsequent revisions of this plan.	Noted	Compliant

Reference	Requirement	Evidence	Audit Finding
Erosion and Sediment Control Plan (September 2012)			
Environment and Community Officer	Provide advice to operations and project personnel to meet the requirements of this plan; Monitor the construction, maintenance, repair or replacement of erosion and sediment control structures as required and in accordance with the principles, strategies and control measures;	Noted	Compliant
	Provide a management system to comply with the environment legislative requirements relevant to the Baal Bone Colliery;	Noted	Compliant
	Advise and assist with the implementation, maintenance, monitoring and review of the ESC Plans and systems;	Noted	Compliant
	Ensure ESC principles, strategies and structures are carried out in accordance with this	Noted	Compliant
	Ensure a Ground Disturbance Permit is completed prior to commencing new projects; Conduct monitoring, periodic environmental inspections and inspections after high rainfall events;	Noted	Compliant
	Coordinate the implementation of corrective actions and evaluate their effectiveness;	Noted	Compliant
	Complete reporting requirements for the Annual Return;	Noted	Compliant
	Conduct erosion and sediment control awareness training for site personnel;	Noted	Compliant
	Undertake ESC monitoring and reporting; and	Noted	Compliant
	Undertake review of the ESCP.	Noted	Compliant
Supervisors & Task Coordinators	Conduct environmental inspections as per this plan including monitoring of sediment and erosion control structures prior to and following high rainfall events;	Noted	Compliant
	Complete maintenance and repair work on erosion and sediment control structures as identified in field inspections and approved by the relevant Department Manager;	Noted	Compliant
	Monitor that team members and contractors carry out appropriate monitoring and maintenance of tasks; and	Noted	Compliant
	Ensure a Ground Disturbance Permit is completed prior to commencing new projects.	Noted	Compliant
All employees and Contractors	Undertake all activities in accordance with this plan; and	Noted	Compliant
	Report any non compliances of this plan to the Baal Bone Colliery Environment & Community Officer.	Noted	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
1. INTRODUCTION			
1.5 Project Approval			
1.5	The Surface and Ground Water Response Plan must describe what measures and/or procedures would be implemented to:	Noted	
	(a) respond to any exceedences of the surface water, stream health, and groundwater assessment criteria;	The TARP was triggered for the exceedance of copper levels in BBPB4. The TARP includes protocols and procedures to respond to triggers.	Compliant
	(b) mitigate the loss of any base flows to Jews Creek following the completion of mining; and	Mine dewatering continues following cessation of extraction at the site, so no amelioration of flows is required at this stage	Not triggered
	(c) mitigate and/or offset any adverse impacts on riparian vegetation.	No impacts to riparian vegetation has been identified.	Not triggered
1.6 Stakeholder Consultation			
1.6	The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must:	27/10/2013 the letter of approval was received from the D-G.	Compliant
	(a) be prepared in consultation with DECCW, I&I NSW and NOW by suitably qualified expert/s whose appointment/s have been approved by the Director-General;	Copies of the Plan sent to DoP, OEH, NoW and DTIRIS on 2 October 2011.	Compliant
	(b) be submitted to the Director-General for approval prior to carrying out any construction on site; and	No construction has been carried out.	Not triggered
	(c) include: <ul style="list-style-type: none"> • a detailed Site Water Balance; • the Ben Bullen Creek Natural Channel Design and Restoration Plan; • an Erosion and Sediment Control Plan; • a Surface Water Monitoring Program; • a Groundwater Monitoring Plan; and • a Surface and Ground Water Response Plan. 	Completed and submitted as an interim and will be submitted as a final as is allowed under the staged submission.	Not triggered

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
2. MANAGEMENT RESPONSE PROTOCOLS			
2.1 EPL Non Compliance			
2.1	A breach of the Environmental Protection Licence (EPL) conditions would trigger the response protocol in Table 2.1.	Noted	
Trigger	• Exceedance of EPL pollution concentration limit;	Noted - exceedance of Iron levels incident, Sept 2012	Compliant
	• Unauthorised discharge;	Noted - Pipeline incident	Compliant
	• Exceedance of EPL discharge volume limit; or	Noted	Not triggered
	• Failure to monitor in accordance with EPL.	Noted	Not triggered
Action	• Notify the Baal Bone Colliery Environment and Community Officer, or delegate;	Noted - sighted investigations into several incidents	Compliant
	• Review monitoring results against historical monitoring data;	Noted - sighted investigations into several incidents	Compliant
	• Review recent monitoring results for adjacent monitoring sites;	Noted - sighted investigations into several incidents	Compliant
	• Review any relevant operational data (i.e. clearing activities, underground mining activities, meteorological data etc.);	Noted - sighted investigations into several incidents	Compliant
	• Determine if an incident has potentially occurred; and	Noted - sighted investigations into several incidents	Compliant
	• Report any Environment Incidents in accordance with the Baal Bone Colliery Environmental Management System (EMS), reporting obligations detailed in EPL No. 765 and the Project Approval.	Noted - sighted investigations into several incidents	Compliant
Response	• Conduct an investigation into the exceedance;	Noted - sighted investigations into several incidents	Compliant
	• Increase monitoring frequency where relevant;	Noted	Not triggered
	• Undertake additional monitoring (stream health monitoring, etc.) if necessary; and	Noted	Not triggered
	• Develop corrective/preventative actions based on the outcomes of the investigation and/or additional monitoring.	conducted in Xstrasafe	Compliant
Plan	• Prioritise actions based on the risk to the environment and likelihood of a repeat incident; and	conducted in Xstrasafe	Compliant
	• Monitor the completion of actions to ensure they have been effective.	conducted in Xstrasafe	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
2.2 Loss of Water Quality			
2.2	Baal Bone Colliery will monitor surface water and groundwater at Baal Bone Colliery in accordance with the Surface Water and Groundwater Monitoring Plans (refer to Appendices 5 and 6 of Baal Bone Colliery WMP).	Noted	
	The response protocol would be triggered if surface water or groundwater results were outside the surface water and stream health or groundwater impact assessment criteria or above the maximum levels set in the monitoring plans.	Noted	
	In the event that a monitoring result exceeds these trigger levels, the TARP as outlined in Table 2.2 is to be implemented.	Noted	
Trigger	<ul style="list-style-type: none"> Monitoring results outside the relevant trigger levels in the SWMP or GWMP. 	Noted - incidents for copper and iron	Compliant
Action	<ul style="list-style-type: none"> Notify the Baal Bone Colliery Environment and Community Officer, or delegate; 	Noted - sighted investigations into several incidents	Compliant
	<ul style="list-style-type: none"> Review monitoring results against historical monitoring data; 	Noted - sighted investigations into several incidents	Compliant
	<ul style="list-style-type: none"> Review recent monitoring results for adjacent monitoring sites; 	Noted - sighted investigations into several incidents	Compliant
	<ul style="list-style-type: none"> Review any relevant operational data (i.e. clearing activities, underground mining activities, meteorological data etc.); 	Noted - sighted investigations into several incidents	Compliant
	<ul style="list-style-type: none"> Determine if an incident has potentially occurred; and 	Noted - sighted investigations into several incidents	Compliant
	<ul style="list-style-type: none"> Report any Environment Incidents in accordance with the Baal Bone Colliery EMS, reporting obligations detailed in EPL No. 765 and the Project Approval. 	Noted - sighted investigations into several incidents	Compliant
Response	<ul style="list-style-type: none"> Conduct an investigation into the exceedance; 	Noted - sighted investigations into several incidents	Compliant
	<ul style="list-style-type: none"> Increase monitoring frequency where relevant; 	Noted	Not triggered
	<ul style="list-style-type: none"> Undertake additional monitoring (stream health monitoring etc.) if necessary; and 	Noted	Not triggered
	<ul style="list-style-type: none"> Develop corrective/preventative actions based on the outcomes of the investigation and/or additional monitoring. 	conducted in Xstrasafe	Compliant
Plan	<ul style="list-style-type: none"> Prioritise actions based on the risk to the environment and likelihood of a repeat incident; and 	conducted in Xstrasafe	Compliant
	<ul style="list-style-type: none"> Monitor the completion of actions to ensure they have been effective. 	conducted in Xstrasafe	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
2.3 Stream Health and Stability			
2.3	The stream health monitoring reports will include a review of the current monitoring results and historical data for each monitoring location to identify any potential deterioration or improvement in stream health. In the event deterioration in stream health is identified, an investigation will be undertaken in accordance with the TARP as outlined in Table 2.3	Noted	
Trigger	• Deterioration in stream health and stability is identified.	Noted	Not triggered
Action	• Notify the Baal Bone Colliery Environment and Community Officer, or delegate;	Noted	Not triggered
	• Review monitoring results against historical monitoring data;	Noted	Not triggered
	• Review recent monitoring results for adjacent monitoring sites;	Noted	Not triggered
	• Review any relevant operational data (i.e. clearing activities, underground mining activities, meteorological data etc.);	Noted	Not triggered
	• Determine if an incident has potentially occurred; and	Noted	Not triggered
Response	• Report any Environment Incidents in accordance with the Baal Bone Colliery EMS, reporting obligations detailed in EPL No. 765 and the Project Approval.	Noted	Not triggered
	• Conduct an investigation into the exceedance;	Noted	Not triggered
	• Increase monitoring frequency where relevant;	Noted	Not triggered
	• Undertake additional monitoring (stream health monitoring etc.) if necessary; and	Noted	Not triggered
Plan	• Develop corrective/preventative actions based on the outcomes of the investigation and/or additional monitoring.	Noted	Not triggered
	• Prioritise actions based on the risk to the environment and likelihood of a repeat incident; and	Noted	Not triggered
	• Monitor the completion of actions to ensure they have been effective.	Noted	Not triggered
2.4 Unauthorised Discharge			
2.4	In the event that an unauthorised off site discharge occurs, reporting occurs in accordance EPL No. 765 and Project Approval. The following actions will be triggered, as detailed in Table 2.4.	Noted	
Trigger	• Unauthorised discharge from a location other than a licensed discharge point as specified in EPL No. 765.	Noted - pipeline breach	
	• Immediately cease the discharge;	Reviewed XtraSafe Incident Report	Compliant
	• Notify the Baal Bone Colliery Environment and Community Officer, or delegate;	Reviewed XtraSafe Incident Report	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
Action	• Determine if an incident has potentially occurred; and	Reviewed XtraSafe Incident Report	Compliant
	• Report any Environment Incidents in accordance with the Baal Bone Colliery EMS, reporting obligations detailed in EPL No. 765 and the Project Approval.	Reviewed XtraSafe Incident Report	Compliant
Response	<ul style="list-style-type: none"> • Initiate a monitoring program, for up to five days following the discharge event, which is to include the following: <ul style="list-style-type: none"> - monitoring of the discharge water (where possible) for pH, electrical conductivity (EC), total dissolve solids (TDS) and total Suspended Solids (TSS); - monitoring upstream and downstream of the discharge point for the above parameters; - photograph monitoring of the discharge point and upstream and downstream; - a channel stability survey downstream of the discharge point following cessation of the discharge (if a volume exceedance occurs); - a stream health survey downstream of the discharge point following cessation of the discharge; and - Notify relevant government agencies in accordance with EPL No. 765 and the Project Approval reporting requirements. 	Reviewed XtraSafe Incident Report. Not applicable because there were no receiving waters	Not triggered
Plan	• Review the water management system and associated procedures to prevent a re-occurrence.	The pipe was replaced and the rest of the pipe system for the discharge was reviewed and repaired as required.	Compliant
2.4	Baal Bone Colliery is required to notify the Director-General and any other relevant agencies of any incident associated with the project, as outlined in Section 3.1.	Reviewed XtraSafe Incident Report	Compliant
2.5 Failure of Erosion and Sediment Structures			
2.5	Response protocols would be triggered if the maintenance and inspection program identified the failure or if results outside the surface water and stream health impact assessment criteria in the Surface Water Monitoring Plan were identified.	Not in the audit period	
	The event would trigger the steps outlined in Table 2.5.	Not in the audit period	Not triggered
Trigger	• Dirty water discharged to natural environment.	Not in the audit period	Not triggered
Action	• Notify the Baal Bone Colliery Environment and Community Officer, or delegate;	Not in the audit period	Not triggered
	• Review monitoring results against historical monitoring data;	Not in the audit period	Not triggered
	• Review recent monitoring results for adjacent monitoring sites;	Not in the audit period	Not triggered
	• Review any relevant operational data (i.e. clearing activities, underground mining location, meteorological data etc.);	Not in the audit period	Not triggered
	• Determine if an incident has potentially occurred; and	Not in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
	• Report any Environment Incidents in accordance with the Baal Bone Colliery EMS, reporting obligations detailed in EPL No. 765 and the Project Approval.	Not in the audit period	Not triggered
Response	• Conduct an investigation into the deterioration;	Not in the audit period	Not triggered
	• Increase monitoring frequency where relevant;	Not in the audit period	Not triggered
	• Undertake additional monitoring (erosion and sediment control, surface water quality monitoring, etc.) if necessary; and	Not in the audit period	Not triggered
	• Develop corrective/preventative actions based on the outcomes of the investigation and/or additional monitoring.	Not in the audit period	Not triggered
Plan	• Prioritise actions based on the risk to the environment and likelihood of a repeat incident; and	Not in the audit period	Not triggered
	• Monitor the completion of actions to ensure they have been effective.	Not in the audit period	Not triggered
2.6 Variations from Groundwater Model Predictions			
2.6	As detailed in the Groundwater Monitoring Plan, groundwater monitoring results will be reviewed on two-yearly basis to ensure impacts from the mining operations are within the limits predicted in the EA.	Not in the audit period	
	In the event that monitoring results identify variances from the groundwater model predictions, the TARP as outlined in Table 2.6 will be implemented.	Not in the audit period	Not triggered
Trigger	• Groundwater monitoring results deviate from predictions made in the EA;	Not in the audit period	Not triggered
	• Increased groundwater make in the underground workings compared to predictions made in the EA (AECOM, 2010);	Not in the audit period	Not triggered
	• Consecutive pressure monitoring data from the regional monitoring network, over a period of 6 months, shows an adverse impact from the previous data or groundwater model predictions; or	Not in the audit period	Not triggered
	• Annual review of the depressurisation of the coal measures shows an adverse impact from the previous data or groundwater model predictions.	Not in the audit period	Not triggered
Action	• Notify the Baal Bone Colliery Environment and Community Officer, or delegate;	Not in the audit period	Not triggered
	• Review all groundwater pumping data;	Not in the audit period	Not triggered
	• Identify if the installation of additional piezometers is required;	Not in the audit period	Not triggered
	• Investigate any external influence which may be affecting the results including climatic data; and	Not in the audit period	Not triggered
	• Review operations and investigate for links to operational activities.	Not in the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
Response	• Review the frequency of groundwater monitoring in the affected area; and	Not in the audit period	Not triggered
	• Notify and consult with relevant government agencies on investigation and outcomes.	Not in the audit period	Not triggered
Plan	• Amend the groundwater model if required; and	Not in the audit period	Not triggered
	• Amend the Groundwater Monitoring Plan if required.	Not in the audit period	Not triggered
2.7 Unforeseen Impacts Protocol			
2.7	In the event of unforeseen impacts associated with surface waters or groundwaters at Baal Bone Colliery, the following protocol will be implemented:	Not in the audit period	
	• conduct a preliminary review of the nature of the impact, including: - any relevant monitoring data; and - current mine activities and land use practices.	Not in the audit period	Not triggered
	• commission an investigation by an appropriate qualified expert into the unforeseen impact to confirm cause and effect and consider relevant options for amelioration of impact(s) as appropriate;	Not in the audit period	Not triggered
	• prepare an action plan in consultation with the appropriate regulatory agency;	Not in the audit period	Not triggered
	• mitigate causal factors where possible; and	Not in the audit period	Not triggered
	• implement additional monitoring as necessary to measure the effectiveness of the controls implemented.	Not in the audit period	Not triggered
2.7.1	Groundwater monitoring of Coxs River Swamp will be undertaken in accordance with the Groundwater Monitoring Plan (refer to Appendix 6 of the Baal Bone Colliery WMP) to monitor groundwater levels and water quality.	Not in the audit period	Not triggered
	If loss of baseflows is identified at Baal Bone Colliery, it will be considered an unforeseen impact and management will be undertaken in accordance with Section 2.6.	Not in the audit period	Not triggered
2.7.2	If loss of riparian vegetation is identified at Baal Bone, it will be considered an unforeseen impact and management will be undertaken in accordance with Section 2.6.	Not in the audit period	Not triggered
3. REPORTING AND REVIEW			
3.1 Environmental Incidents			
3.1	Environmental incidents will be managed in accordance with XCN SD GDL 15.0 – Incident Management and BBN SD GDL 0020 Hazard and Incident Management, which has been developed to:	Noted	
	• define and categorise environmental incidents;	Noted	

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
	<ul style="list-style-type: none"> manage sustainable development hazards and incidents to minimise damage to people, environment, community and other assets; and 	Noted	
	<ul style="list-style-type: none"> identify factors that contributed to incidents through an investigation process and to learn from those events and prevent reoccurrence. 	Noted	
3.1	Baal Bone Colliery will record and investigate all environmental incidents. The details and final investigation results from all environmental incidents must be recorded on Baal Bone Colliery Incident Report Form & Community Complaint Form (BBN SD FRM 0055) and provided to Environment and Community Officer for review. All environmental incidents are to be recorded in XtraSafe.	Incidents reported in XtraSafe database. The auditors have sighted the incident report submitted to DoP on 15/02/2013 regarding the leaking pipeline (occurred on 14/02/2013).	Compliant
3.1	In accordance with Condition 5 of Schedule 5 of the Project Approval, the proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident.	Noted, where timing was not met on the incident reports reviewed, timing had been agreed with the DP&I prior to the due date.	Compliant
3.1	Within 7 days of the date of the incident, Baal Bone Colliery shall provide the Director-General and any other relevant agencies with a detailed report on the incident.	Noted	
3.1	The report will include the following details:	The incident reports reviewed complies with this requirement	Compliant
	<ul style="list-style-type: none"> the date, time and nature of the exceedance/incident; 	The incident reports reviewed complies with this requirement	Compliant
	<ul style="list-style-type: none"> identify the likely cause of the exceedance/incident; 	The incident reports reviewed complies with this requirement	Compliant
	<ul style="list-style-type: none"> description of the response action that has been undertaken to date; and 	The incident reports reviewed complies with this requirement	Compliant
	<ul style="list-style-type: none"> description of the proposed measures to address the exceedance/incident. 	The incident reports reviewed complies with this requirement	Compliant
3.1	Environmental incidents are managed and communicated in accordance with XCN SD ANN 0050 16.1 Measurement and Reporting Annexure and HSEC Measurement and Reporting (BBN SD GDL 0023).	Noted, observed for sample incidents at site.	Compliant
	In addition to reporting required by Condition 5 of Schedule 5 of the Project Approval, incidents resulting or having the potential to result in material harm to the environment (as defined by Section 147 of the POEO Act) shall be reported to the following authorities immediately, in accordance with the Baal Bone Colliery Pollution Incident	Noted	

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
3.1.1	• the Environment Protection Authority (EPA);	Notified when required through the audit period	Compliant
	• the Ministry of Health via the local Public Health Unit;	No notification required during the audit period.	Not triggered
	• WorkCover;	No notification required during the audit period.	Not triggered
	• the Local Authority (Council); and	No notification required during the audit period.	Not triggered
	• NSW Fire and Rescue.	No notification required during the audit period.	Not triggered
3.1.1	In the case where immediate threat to human health or property has been identified, contact NSW Fire and Rescue as a first priority.	Not in the audit period	Not triggered
3.1.1	The decision on whether to notify should not delay immediate actions to ensure the safety of people or contain a pollution incident. However, incident notification should be made as soon as it is safe to do so.	Not in the audit period	Not triggered
3.1.1	The information about a pollution incident that must be notified includes:	Not in the audit period	Not triggered
	• the time, date, nature, duration and location of the incident;	Not in the audit period	Not triggered
	• the location of the place where pollution is occurring or is likely to occur;	Not in the audit period	Not triggered
	• the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known;	Not in the audit period	Not triggered
	• the circumstances in which the incident occurred, including the cause of the incident, if known; and	Not in the audit period	Not triggered
• the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known.	Not in the audit period	Not triggered	
3.2 Community Complaints			
	Baal Bone Colliery operates an incident reporting and inquiry telephone line (02 6350 6900) advertised to the public via the Baal Bone website, the EPA and public notices such as newsletters. Community complaints are forwarded to the Environment and Community Officer and managed in accordance with BBN SD PRO 0012 Community Complaints Management Procedure.	Noted, complaints system operates but no complaints in the audit period.	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
3.2	The Environment and Community Officer is responsible for the complaint management process, including: <ul style="list-style-type: none"> • Acknowledging all complaints, responding to the complainant within 24 hours (where practicable); • Registering all complaints in Xstrasafe; • Investigating complaints impartially giving proper consideration to the facts and the circumstances prevailing at the time; • Implementing corrective actions if required; and • Reporting to relevant stakeholders the investigation outcomes and corrective actions taken. 	Noted, complaints system operates but no complaints in the audit period.	Compliant
	Details and number of complaints are reported annually in the Annual Review and in the Annual Return for EPL 765 in accordance with Baal Bone's reporting requirements. As per Project Approval 09_0178 a complaints register (updated quarterly) is published on the Baal Bone webpage.	Noted, complaints system operates but no complaints in the audit period.	Compliant
3.3 Internal Reporting			
3.3	The Baal Bone Colliery Environment and Community Officer is responsible for preparing information for internal communication and reporting. Water management information will also be provided to Xstrata Coal NSW (XCN) for the following <ul style="list-style-type: none"> • Xstrata Sustainability Database (XSD); and • Monthly Environment and Community Status Report. 	Noted	
		Sighted	Compliant
		Sighted copies including this information	Compliant
3.3	All water pollution incidents or non-conformances with legislative requirements will be reported internally in accordance with the Baal Bone Colliery EMS and EPL 765 reporting requirements.	Noted	
3.4 External Reporting			
3.4	A summary of the surface water and groundwater monitoring results will be provided in the Annual Review report. The following information will be reported in the Annual Review report in accordance with the Project Approval conditions (refer to Table 2.1): <ul style="list-style-type: none"> • a summary of monitoring results (surface water, groundwater, channel stability and stream health); • an analysis of monitoring results against impact assessment criteria, historical monitoring results and predictions in the EA; • an identification of any trends in the monitoring results; 	The AER/AEMR includes this information.	Compliant
		Channel stability monitoring not conducted as per requirements, therefore not reported.	Non-compliant
		The AER/AEMR includes this information.	Compliant
		The AER/AEMR includes this information.	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
	<ul style="list-style-type: none"> the site water balance; 	The AER/AEMR includes this information.	Compliant
	<ul style="list-style-type: none"> any non-compliances reported during the year; and 	The AER/AEMR includes this information.	Compliant
	<ul style="list-style-type: none"> actions taken to address any non-compliances 	The AER/AEMR includes this information.	Compliant
3.4	In addition, any significant findings regarding the implementation of the WMP will be reported in the Annual Review report, which may include: <ul style="list-style-type: none"> the effectiveness of the erosion and sediment controls; 	The AER/AEMR includes this information.	Compliant
	<ul style="list-style-type: none"> changes to the site water balance; and 	Water Balance not reported in AEMR	Non-compliant
	<ul style="list-style-type: none"> any identified issues or exceedences of impact assessment criteria (trigger values). 	The AER/AEMR includes this information.	Compliant
3.4	The Annual Review report will also document community complaints and incidents relating to the performance, maintenance and/or failure of the Baal Bone Colliery water management system.	The AER/AEMR includes this information.	Compliant
3.4	Additionally, in accordance with Condition 9, Schedule 5 of the Project Approval, Baal Bone Colliery will regularly report environmental monitoring results on its website.	The website contains this information and it is current	Compliant
3.5 Community Consultation			
3.5	Site water management issues of interest to the community will be addressed in community consultation meetings in accordance with the Baal Bone Colliery Social Involvement Plan (SIP).	Noted in CCC minutes	Compliant
	Specific issues relating to individual landowners and residents will be addressed directly by the Baal Bone Colliery Environment and Community Officer as required.	This has not occurred in the audit period	Compliant
	A copy of the water monitoring results reported in the Annual Review will be made available to the public.	AER/AEMR is available on the Baal Bone website.	Compliant
4. REVIEW AND IMPROVEMENT			
4	Ongoing monitoring and review on the performance and implementation of this SWGWRP will be undertaken in accordance with XCN SD GDL 16.0 Monitoring and Review and the Baal Bone Colliery Environmental Management Strategy.	Noted by the auditors	Compliant
	The Environment and Community Officer (or delegate) will review this SWGWRP and supporting plans and resubmit to DP&I at least every year or earlier if required.	Development of draft document for submission to DP&I (Umwelt) on 21/09/12.	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
4	Any changes made to the SWGWRP as a result of the review will be made in consultation with OEH, DTIRIS and NOW.	Noted by the auditors	Not triggered
	A copy of the revised SWGWRP will be supplied to the Director-General of DP&I for approval.	Not triggered as report is interim and yet to be submitted for approval. Will be submitted when finalised.	Not triggered
	The SWGWRP will reflect changes in environmental requirements, technology and operational procedures.	Noted by the auditors	Not triggered
	Updated versions of the approved SWGWRP will be made publicly available on the Baal Bone Colliery website	Not on the website as it is still in draft	Non-compliant
4	Within 3 months of the submission of an:	Noted	
	(a) audit report under condition 8 of schedule 5;	Revisions of numerous plans occurred in 2012 as a result of 2011 IEA.	Compliant
	(b) incident report under condition 5 of schedule 5; and	Reports were reviewed by the auditors	Compliant
	(c) annual review under condition 3 of schedule 5, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.	2013 review constituted a revision of the Biodiversity and Land Management Plan as per the letter submitted to notify the D-G on 16/05/2013	Compliant
6. ACCOUNTABILITIES			
Operations Manager	Ensure appropriate resources are approved for the effective implementation of this Surface Water and Groundwater Response Plan (SWGWRP).	Noted	Compliant
	Develop, approve, implement and maintain standards that are consistent with the XCN SD Guidelines and meet all relevant legislation requirements.	Noted	Compliant
	Provide that sufficient resources are allocated for the implementation of this Plan.	Noted	Compliant
	Ensure appropriate resources are budgeted for to enable Baal Bone Colliery to respond appropriately to TARPs.	Noted	Compliant
	Ensure that surface and groundwater considerations are undertaken in the installation of all new infrastructure to be installed at the operation, where applicable.	Noted	Compliant
	Ensure that surface and ground water management TARPs are implemented in accordance with this Plan.	Noted	Compliant

Reference	Requirement	Evidence	Audit Finding
Surface Water and Groundwater Response Plan (September 2012)			
Environment and Community Officer	Ensure that the results of monitoring are evaluated and reported to senior management and to relevant personnel for consideration as part of ongoing mine	Noted	Compliant
	Ensure any potential or actual surface or groundwater monitoring issue is reported in accordance with legal requirements and the corporate standard.	Noted	Compliant
	Provide visible and proactive leadership in relation to the surface and groundwater management.	Noted	Compliant
	Ensure all internal and external reporting requirements are met, including incident reporting in accordance with EMS.	Noted	Compliant
	Ensure all reporting complies with internal and external monitoring standards, protocols and regulations.	Noted	Compliant
	Proactively engage government and community as required.	Noted	Compliant
	Coordinate the ongoing review of this Plan.	Noted	Compliant
	Prepare external reports e.g. Annual Review Report, prior to final approval by the Operations Manager.	Noted	Compliant
	Manage and maintain the surface water and groundwater monitoring programs.	Noted	Compliant
	Ensure monitoring equipment is operated in accordance with relevant industry standards and protocols.	Noted	Compliant
	Ensure that all monitoring records are effectively maintained on site in accordance with the EMS.	Noted	Compliant
	Coordinate incident investigation processes including associated reporting requirements, in accordance with the EMS.	Noted	Compliant
	Coordinate the implementation of corrective actions and evaluate their effectiveness.	Noted	Compliant
All employees and Contractors	Ensure any potential or actual water management issues, including environmental incidents, are reported to the ECM.	Noted	Compliant

Reference	Requirement	Evidence	Audit Finding
Waste Management Plan (July 2012)			
2. STATUTORY REQUIREMENTS			
2.1 Project Approval 09_0178			
2.1	The Proponent shall:	Noted	
	(a) minimise the waste (including coal reject) generated by the project;	Note project is suspended and very little waste is produced.	Compliant
	(b) ensure that the waste generated by the project is appropriately stored, handled and disposed of, to the satisfaction of the Director-General.	2012 AEMR	Compliant
2.2	The Proponent shall prepare and implement a Waste Management Plan for the project to the satisfaction of the Director-General. This plan must be submitted to the Director-General within 3 months of the date of this approval.	Updated to the revised Project Approval in May 2011	Compliant
2.3 Environmental Protection Licence			
2.3	Section 4 Operating Conditions, Condition O1.1 states: 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; b) The treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Site inspection revealed no materials stored such that additional waste would be created. No processing at the time of the audit and little processing through the audit period.	Compliant
3. WASTE MANAGEMENT			
3.4 Waste Tracking			
3.4	Wastes specified in Part 1 of Schedule 1 to the Protection of the Environment Operations (Waste) Regulation 2005 must be tracked within NSW, and all wastes in Parts 1 or 2 of Schedule 1 must be tracked when they are transported interstate. The major waste streams produced by Baal Bone Colliery which require tracking are identified in Appendix 1.	Noted	
3.4	Prior to transporting a load of controlled waste, a waste Consignment Authorisation must be obtained for each type of controlled waste to be disposed of and noted on the Waste Data Form.	No controlled waste disposed of in the audit period (pers comm N.VdB per storeman)	Not Triggered
3.4	The contractor who removes the waste is responsible for completing the waste consignment application. Copies of waste consignment forms are maintained onsite.	Waste consignment application outside scope	
3.4	Waste contractors are also required to provide suitable waste transport certificates to TWCL within 21 days of waste collection.	Waste Transport Certificate provided	Compliant
3.4	Finally, a consignor of waste must ensure that the waste is not transported from one place to another place unless the consignor: a) Holds a consignment authorisation in respect of the waste; b) Has obtained a waste transport certificate for the waste and has certified that any part of the certificate that is required to be completed by the consignor has been completed accurately; c) Has given the waste transport certificate to the transporter of the waste; d) Has ensured that the transporter is licensed (if required by or under the Act) to transport the waste; e) Has ensured that the waste facility to which the waste is to be transported is legally able to accept waste of the type concerned.	Noted	

Reference	Requirement	Evidence	Audit Finding
Waste Management Plan (July 2012)			
3.5 Waste Transport and Disposal			
3.5	All engaged waste transporters must: <ul style="list-style-type: none"> • Retain all dockets and receipts for the waste; • Provide suitable waste transport certificates to TWCL within 21 days of waste collection (transport certificates can be downloaded electronically from the EPA website); • Make sure that the waste load being transported is covered and tied down and does not leak, spill or have dust blow off the load; • Be licensed to transport that classification of waste (as required). 	The site is in suspended operations so waste transport has been very limited due to the site not generating much waste. The documentation reviewed by the audit team indicated compliance with these requirements though a loaded truck was not available to review compliance with the third dot point.	Compliant
3.5	Waste transporters must have Environment Protection Licences issued by EPA to transport the appropriate classification of waste.	Evidence sighted in Waste Transport Document	Compliant
3.5	All waste removed from the Baal Bone Colliery is done so by suitably licensed contractors, as described in Appendix 1. Under no circumstances will waste be received at the mine for storage, treatment, processing, reprocessing or disposal.	Noted, no waste received at mine	Compliant
3.5	All recyclable waste is transported by a licensed contractor to a licensed recycling facility. Where re-using / recycling options are not available, waste classified as General Solid Waste (putrescible or non-putrescible) is disposed of on-site to the Reject Emplacement Area (REA).	Noted	Compliant
	When operating Stone and Carbonaceous Washery reject and stowage are disposed of in the coarse REA, while washery reject slurry is pumped to the tailings dam for disposal.	Not operating at time of audit but evidence sighted that supports this practise for the short time the CHPP operated.	Compliant
3.5	Liquid wastes, including hydrocarbons, solvent and coolants, are collected on-site for recycling or re-use as appropriate. Liquid septic waste is processed at the site's Waste Sewage Treatment Plant and/or removed by a licensed contractor for municipal sewage treatment processing.	Noted	
3.5	Used light vehicle tyres and Earth moving vehicle tyres >1.2 metres are collected by a contractor and sent for recycling.	None in the audit period	Not Triggered
3.5	Hazardous wastes are segregated from other waste streams and stored in appropriately bunded areas prior to transportation offsite. Hazardous waste is disposed of in accordance with the Baal Bone Disposing of Hazardous Substances Procedure. Disposal of hazardous waste will occur: <ul style="list-style-type: none"> • On-site according to the site's written procedure; • Off-site by a preferred and licensed waste disposal contractor, to a suitably licensed facility. 	None in the audit period	Not Triggered
4. MONITORING AND REPORTING			
4.1 Monitoring and Inspections			
	All waste disposal records, including Waste Data Forms and transport certificates will be retained by the waste contractors and supplied to Baal Bone Colliery Supply Manager on a monthly basis. The Supply Manager will then file all waste records which will be kept for at least four years.	Noted sighted waste tracking documentation from the start of the audit period and from prior to the audit period.	Compliant
	Monitoring of waste management has been included in Baal Bone's routine inspections. Inspections will be documented using site specific inspection sheets and any instructions provided to work teams will be recorded as will actions taken in relation to waste management. Copies of inspection sheets will be filed. Any issues or non-conformances noted during inspections would be acted on by the most appropriate personnel (refer to Section 8 – Accountabilities).	Evidence of monitoring of waste management sighted in weekly environmental inspection. Monthly Waste monitoring results are published on Baal Bone's website as a part of EPL reporting.	Compliant
4.2 Routine Reporting			
4.2	Waste management data will be compiled and reported to internal management on a monthly basis. Data should be compared to the major waste stream requirements outlined in Appendix 1.	No longer conducted	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Waste Management Plan (July 2012)			
4.2	By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General. This review must:	5/3/2013 Annual Report was submitted to D-G.	Compliant
	(a) describe the works that were carried out in the previous calendar year, and the works that are proposed to be carried out over the current calendar year;	Section 2 and it's sub-sections describe the works/activities carried out during 2012. Section 6 and it's sub-sections outline the works proposed for 2013 (2012 AEMR)	Compliant
	(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against: <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; 	Statutory requirements and/or trigger levels not mentioned for all areas. Waste results do not refer to results of previous years, nor are results compared to the predictions in the EA. AER must reference previous years results for all waste.	Non-compliant
	(c) identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance;	No waste non-compliances identified	Not Triggered
	(d) identify any trends in the monitoring data over the life of the project;	Some trending conducted, not all areas addressed and not clear whether any were relevant.	Compliant
	(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and	Comparisons to the EA are included	Compliant
	(f) describe what measure will be implemented over the current calendar year to improve the environmental performance of the project.	Section 6 and it's sub-sections outline the activities/works such as ongoing monitoring proposed for 2013 (2012 AEMR)	Compliant
5. MANAGING SPILLS AND OTHER INCIDENTS			
5	If a site is suspected of contamination, further assessment and advice will be sought from an appropriately qualified contractor to determine suitable storage, treatment, handling and disposal options. Assessment of contaminated sites is outside the scope of this WMP.	Six monthly monitoring is being conducted around the underground tanks. Monitoring is ongoing until the tanks are removed.	Compliant
5	As per section 148 of the POEO Act if a "pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened" notification to relevant authorities will be carried out immediately.	Not in the audit period	Not Triggered
5	Spill kits are available and maintained in all working areas to enable small spills to be cleaned up quickly and effectively.	sighted in site inspection	Compliant
6. ENVIRONMENTAL PERFORMANCE			
6.1 Training and Awareness			
	Waste management is the responsibility of all personnel on site, and training is included in the Generic XCN Induction process for all new employees and contractors. Additional training is also undertaken with specific personnel involved in waste management on the surface as per the training needs analysis.	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Waste Management Plan (July 2012)			
6.1	All bins are either colour-coded or clearly labelled, and signage is available to assist personnel to use that waste management system correctly. Notices may also be posted on the notice boards located across the site to advise of changes or announcements.	Sighted during site inspection	Compliant
	In addition to Baal Bone Colliery training and awareness initiatives, specific contractors may also provide education and training packages for waste management to compliment the training provided by Baal Bone Colliery.	Noted by the auditors	Compliant
6.2 Incident and Complaint Management			
	Incident and community complaints management includes receipt of an incident/complaint, an investigation, implementation of appropriate remedial action, and feedback to the complainant as required. Additionally, communication to site management or personnel and notification to relevant external bodies, such as the EPA and DoPI, are also undertaken where necessary.	No complaints in the audit period	Not triggered
	Baal Bone Colliery operates an incident reporting and inquiry telephone line (02 6350 6900) advertised to the public via the Baal Bone website, the EPA and public notices such as newsletters. Community complaints are forwarded to the Environment and Community Officer and managed in accordance with BBN SD PRO 0012 Community Complaints Management Procedure.	No complaints in the audit period	Not triggered
6.2	As soon as practicable, the Environment and Community Officer will complete an Environmental Incident Report Form & Community Complaint Report Form (BBN SD FRM 0055) to record details. All complaints received are entered into XstraSafe where following are recorded: <ul style="list-style-type: none"> • The date and time of the complaint; • The method by which the complaint was received; • The personal details of the complainant which were provided by the complainant; • The nature of the complaint; • The action(s) taken to address the complaint including follow up contact; and • If no action is taken the reason why no action was taken. 	No complaints in the audit period	Not triggered
6.2	Details and number of complaints are reported annually in the Annual Review and in the Annual Return for EPL 765 in accordance with Baal Bone's reporting requirements. As per Project Approval 09_0178 a complaints register (updated quarterly) is published on the Baal Bone webpage.	These details are in the AER.	Compliant
	From 31 March 2011, the Proponent shall:	Noted	
	(a) make the following information publicly available on its website to the satisfaction of the Director- General: <ul style="list-style-type: none"> • a copy of all approved strategies, plans and programs; 	All approved strategies, plan and programs are available on the website. Water MP and related plans are interim and as such are not required to be on the website until approved.	Compliant
6.2	(b) keep this information up-to-date, to the satisfaction of the Director-General.	There is no formal process for compliance with this requirement, it is therefore assumed that the checks conducted as part of this audit fulfil the DG's requirements and indirectly provide tacit approval of the currency of the information provided on the website.	Compliant

Reference	Requirement	Evidence	Audit Finding
Waste Management Plan (July 2012)			
7. REVIEW AND IMPROVEMENT			
7.1 Review			
7.1	By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General. This review must:	5/3/2013 Annual Report was submitted to D-G.	Compliant
	(a) describe the works that were carried out in the previous calendar year, and the works that are proposed to be carried out over the current calendar year;	Section 2 and it's sub-sections describe the works/activities carried out during 2012. Section 6 and it's sub-sections outline the works proposed for 2013 (2012 AEMR)	Compliant
	(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against: <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; 	Statutory requirements and/or trigger levels not mentioned for all areas. Only Surface water, Groundwater levels, flora and fauna refer to results of previous years. Air Pollution, Surface Water, Groundwater and Pollution, Flora, Fauna, Operational Noise and Aboriginal and European Heritage compare the results to the predictions in the EA. AER must reference previous years results for all areas monitored including waste.	Non-compliant
	(c) identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance;	Non-compliances over the previous year were identified and subsequent actions detailed (3.20.1 and 3.4.2)	Compliant
	(d) identify any trends in the monitoring data over the life of the project;	Some trending conducted, not all areas addressed and not clear whether any were relevant.	Compliant
	(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and	Comparisons to the EA are included	Compliant
(f) describe what measure will be implemented over the current calendar year to improve the environmental performance of the project.	Section 6 and it's sub-sections outline the activities/works such as ongoing monitoring proposed for 2013 (2012 AEMR)	Compliant	
7.1	Additional review of this Waste Management Plan will be conducted following changes in statutory requirements, operational or management procedures or when triggered by any event, complaint or finding(s) that identifies improvement in the controls that effectively manage the identified hazard.	Review occurred in June 2012. Review in 2013 was undertaken however no changes were deemed necessary.	Compliant
7.1	The review will include an assessment of the effectiveness of the established waste controls and their performance against the Plan's objectives. Progressive amendments will be made to the Plan as a result of Baal Bones Colliery continuous improvement process as defined in the Environmental Policy. Any changes to the Plan will be made in consultation with the appropriate regulatory authority.	Noted by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Waste Management Plan (July 2012)			
7.1	The Waste Management Plan will be available on the Baal Bone Colliery intranet system and Baal Bone's website.	The Waste Management System is available on Baal Bone's website and intranet	Compliant
7.2 Improvement			
7.2	Baal Bone Colliery will ensure that its waste contractors employ appropriate technologies and procedures required to minimise waste production and treat it in a suitable manner.	Noted by the auditors	Compliant
	Baal Bone Colliery operates under the Baal Bone Environmental Policy which promotes continuous improvement. Baal Bone Colliery will continue to research and where it is relevant to do so, develop and implement, waste management practices to ensure the disposable waste generated at the site remains below acceptable levels.	Noted by the auditors	Compliant
8. ACCOUNTABILITIES			
Baal Bone Colliery Operations Manager	<ul style="list-style-type: none"> • Provide adequate resources for the implementation of this Waste Management Plan. • Ensure that waste considerations are undertaken in the installation of all new infrastructures to be installed at the operation. • Ensure that operational changes consider the potential impacts of waste on adjacent lands and residences not associated with Baal Bone Colliery. • Ensure personnel working at the operation are aware of the waste obligations whilst working at Baal Bone Colliery. 	Noted by the auditors	Compliant
Baal Bone Colliery Environment and Community Officer	<ul style="list-style-type: none"> • Implement the Waste Management Plan. • Coordinate and participate in the on-going review of the Waste Management Plan. • Report to senior management on the waste performance. • Coordinate the implementation of the waste management controls. • Undertake periodic inspections of Baal Bone Colliery's operations to assess waste management. • Contact point for Community Complaints in accordance with Baal Bone Colliery's Complaints Procedure. • Coordinate the incident and complaint investigation process. 	Noted by the auditors	Compliant
Baal Bone Colliery Supply Manager	<ul style="list-style-type: none"> • Implement the Waste Management Plan. • Keep records of Waste Data Forms and transport certificates. 	Noted by the auditors	Compliant
Contractors engaged by Baal Bone Colliery	<ul style="list-style-type: none"> • Ensure all wastes are placed into the appropriate storage areas or receptacles. • Ensure compliance with all Baal Bone Colliery regulations and engage in safe work practices. • Undertake work practices that comply with this Waste Management Plan. 	Noted by the auditors	Compliant
All employees	<ul style="list-style-type: none"> • Ensure the effective implementation of this Waste Management Plan with respect to their work area. • All employees are responsible for using the correct bins for the disposal of waste in accordance with this plan. • Report incidents as soon as possible to the Environment and Community Officer. 	Noted by the auditors	Compliant

Reference	Requirement								Evidence	Audit Finding
Waste Management Plan (July 2012)										
APPENDIX 1 - MAJOR WASTE STREAMS AT BAAL BONE COLLIERY										
	EPA Waste Classification	Waste Material	Waste Component	Collection Process	What Happens to Waste	Baal Bone Contact	Contractor	Tracking Requirements Under FOEO (Waste) Regulations 2005	Noted	
	General Solid Waste (Putrescibles and Non-Putrescibles)	General Waste	Food scraps, non-recyclable paper, plastics, air filters, dry rags	General Waste Bins	Disposed landfill	Supply Manager	Sifa	None		
	General Solid Waste (Non-Putrescibles)	Wooden pallets (non-returnable)	Wood	Stored at pallet storage area; reused or recycled as appropriate	Reused / recycled	Supply Manager	Return to supplier where possible or reused on-site	None	Noted	
		Scrap steel and ferrous materials	Steel	Collect in 'ferrous scrap metal' bins for collection by contractor	Re-smelted and recycled	Supply Manager	Cooke's Metals	None		
		Washery Reject	Slurry	Pumped from CHPP	Pumped to tailings dam	CHPP Manager	N/A	None		
		Washery Reject	Stone and carbonaceous materials	Stone bin at CHPP	Trucked to course REA	CHPP Manager	N/A	None		
		Slowage	Stone and carbonaceous materials	Pit-top waste transfer system	Trucked to course reject emplacement area	CHPP Manager and Production Manager	N/A	None		
	Liquid Waste	Oil	Hydrocarbons	Collected in oil rack at pit-top waste transfer facility; in tank at oil separator unit; at pit-top workshop; and at CHPP workshop	Recycled	Supply Manager and Mechanical Engineer	South Oil Collection	Tracking required if transported from site. Waste data form and consignment authorisation number not required if destined for recycling.	Noted	
		Used Parts Washed	Solvent	Direct recovery by contractor	Recycled for reuse	Mechanical Engineer	ERS Australia	Tracking required		
		Coolant	Glycol	Pumped to mobile collection tanks for reuse or directly evacuated from the machinery to the bulk waste storage tanks for collection by contractor	To be reused by supplier	Mechanical Engineer	ERS Australia - Closed system when radiator change out required. Taken by contractor as part of service	Tracking required		
		Septic	Liquids and Solids	Processed by site waste treatment system with occasional removal by contractor	Site STP or removed to municipal STP	Safety Superintendent	Williams Waste Services	Tracking required when removed from site		

Reference	Requirement							Evidence	Audit Finding
Waste Management Plan (July 2012)									
Hazardous Waste	EPA Waste Classification	Waste Material	Waste Component	Collection Process	What Happens to Waste	BaB Contact	Contractor	Tracking Requirements Under POEO (Waste) Regulations 2005	
		Grease	Hydrocarbons	Collect in sealed 250L drums and store in bunded waste storage facility	Recycled	Mechanical Engineer	Southern Oil Collection	Tracking Required	
		Oil Filters	Hydrocarbons/steel	Collected in designated bins in workshops for collection by contractor	Re-melted and steel recycled	Mechanical Engineer	ERS Australia	Tracking required. Waste data form and consignment authorisation number not required if destined for recycling	
		Oil Rags	Oil rags	Collected in designated bins in workshops for collection by contractor	Disposed to landfill	Mechanical Engineer	ERS Australia	None	
		Empty Oil Drums	Steel	After draining on oil draining rack, drums are crushed and placed in 'ferrous scrap metal' bins for collection by contractor	Re-melted and recycled	Supply Manager	Cooke's Metals	None	
		Batteries (Wet Cell)	Lead Acid Plastic	Store on spill proof pallets in bunded waste storage facility for collection by contractor	Re-melted and lead recycled	Supply Manager	Cooke's Metals	Tracking required. Waste data form and consignment authorisation number not required if destined for recycling	
		Refrigerant R134A	Gas	Direct recovery by contractor	Serviced by contractor	Electrical Engineer and Mechanical Engineer	Aelag Refrigeration	Tracking required	
	Contaminated Soil	Hydrocarbons	Various, dependent on contamination	Various	Environment and Community Officer	Disposed onsite following appropriate treatment	Tracking required dependent on type of contamination		
Special Waste	Light Vehicle Tyres	Rubber and Steel	Collected by contractor, no tyre maintenance conducted on site	Sent to recycling by tyre contractor	Mechanical Engineer	Lingow Tyre Service	None		
	Earth Moving Vehicles Tyres >1.2m	Rubber and Steel	Collected by contractor	Sent to recycling by tyre contractor	Mechanical Engineer	Marathon/Lithgow Tyre Service	None		
	Shops and clinical	Metals and plastics	Marked sealed containers	Micro-wave decontamination, shredded and disposed of at secured landfill	Safety Superintendent	St John Ambulance	Tracking required. Waste data form and consignment authorisation number not required if written contract with licensed contractor or authorised facility.		

Noted

Noted

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
1. INTRODUCTION			
1.8 Consultation			
1.8.1	The Baal Bone Colliery Community Consultative Committee (CCC) has been established to provide a formal conduit for exchange of information and views between the local community and Baal Bone's Management Team.	4.2.2 of 2012 AEMR outlines 2012 membership and agenda items from 2 meetings. 1 meeting (August) occurred in 2013 with the other meeting to push into 2014.	Compliant
1.8.2	Baal Bone Colliery circulates a periodic community newsletter, The Baal Bone Community Newsletter, to neighbouring residents, and to Baal Bone employees and contractors. Newsletters are also published on the Baal Bone website, and provide topical information regarding the mine's operational progress, environment and safety performance, and other areas of general interest including site rehabilitation and mine closure.	Newsletters are available on the website (March 2012, May 2013).	Compliant
2. PRE MOP ENVIRONMENT			
2.1 Existing Environment			
2.1	Although all underground mining operations have been completed, Baal Bone will continue to pump water from the North (above Longwall 19) and South (Longwall 1) Goaf Water storage areas. This water is being pumped out of the East Great Dividing Range catchment area into the West Great Dividing Range catchment area. Pumping from both bores will continue throughout the suspended operations period as part of the underground infrastructure maintenance.	Pumping is still occurring	Compliant
2.2 Aboriginal and European Cultural Heritage			
2.2	All of the culturally significant sites identified have been protected from mining impacts. The Office of Environment and Heritage and the local aboriginal groups are aware of the Baal Bone Colliery cultural heritage management process, and are satisfied with the management of Aboriginal Heritage issues at the site.	Consultation log from 2012 reviewed and deemed compliant	Compliant
2.2	Should Baal Bone decide to pursue remnant mining options the relevant cultural survey / management plans will be completed prior as required under the project approval.	This has not occurred	Not triggered
2.5 Soils and Land Capability			
2.5.1	The SCS recommends the application of 250 kilograms per hectare of Grower 11 (or equivalent) for sites low in potassium and 250 kilograms per hectare of Starter 15 (or equivalent) for all other sites. Fertilizer may need to be applied annually to improve soil fertility.	Rehab spreadsheet records reviewed and Grower 12 used in the 2012 rehabilitation program. No new areas rehabilitated in the audit period.	Compliant
2.5.1	Further testing of soils will be undertaken to determine amelioration requirements for future rehabilitation areas. It is anticipated that amelioration will include superfine agricultural gypsum to treat dispersion, superfine agricultural lime to increase soil pH, fertilisers to increase nutrient levels and compost to increase soil organic carbon.	No areas rehabilitated in the audit period. Soil testing occurs every 2 years (DnA Environmental).	Compliant
2.5.1	Maintenance applications of soil ameliorants have been undertaken and will continue to be undertaken until conditions exist such that the revegetation works are self sustaining.	2012 rehabilitation is compliant and is ongoing across the site.	Compliant

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
2.5.2	The final end land use is generally considered to be compatible with existing and preferred uses in the vicinity of the colliery. Progress towards the final end landuse of the site will be determined by the Landscape Function Analysis, which is conducted yearly. Revisions to the final end landuse will be conducted by Baal Bone Colliery in line with any changes that may occur to legislation, regulations and council plans.	Landscape Function Analysis was conducted annually in 2012 and 2013 (DnA Environmental). Land forms provided to DRE in the AEMR and reviewed.	Compliant
2.8 Waste Management and Recycling			
2.8.1	Sewage and grey water effluent from site facilities, including the administration building, bathhouse, CHPP and amenities are collected in a sump and directed through macerator pumps to an on-site sewage treatment plant (STP). The waste is treated by an activated sludge treatment process then is discharged into two maturation ponds, with a total residence time of approximately 20 days.	Noted and observed in the site inspection	Compliant
2.8.1	Following treatment and maturation the overflow from the second pond discharges onto a well vegetated transpiration bed; this is EPL Discharge and Monitoring Point No. 2.	Noted and observed in the site inspection	Compliant
2.8.2	Baal Bone currently has a total waste management system which includes training, disposal and reporting.	Equipment has been recycled, including some scrap metal recycling and the audit team reviewed waste collection records and an explanation of the training program, including the general induction and site familiarisation.	Compliant
2.8.2	Waste is occasionally placed into the REA 6 area. This is all inert waste, with all waste oil and hazardous materials being disposed of separately.	Noted	Compliant
2.9 Vehicle Access			
2.9	The main vehicle access to the administration complex, stores, workshop and CHPP is via the Castlereagh Highway. Access is controlled by an electronic steel gate which is open during daytime hours and closed during night-times and weekends.	Noted by the auditors.	Not triggered
2.10 Coal Transport			
2.10	No coal at Baal Bone has been transported via road haulage since 2007 though this is permitted within the conditions of the Project Approval 09_0178.	Noted	
2.11 Site Security			
2.11	A number of safety measures have been adopted on site to ensure employee and public safety throughout all aspects of operations at Baal Bone. These security measures include:	Noted, no evidence of illegal entry noted during audit	Compliant
	• Licensed security contractor with regular patrols during hours of non-operation;	Noted, no evidence of illegal entry noted during audit	Compliant
	• Change of security locks;	Noted, no evidence of illegal entry noted during audit	Compliant
	• CCTV surveillance of key areas of site;	Noted, no evidence of illegal entry noted during audit	Compliant
	• Lockable gates across all portals;	Noted, no evidence of illegal entry noted during audit	Compliant
• Perimeter Fencing; and	Noted, no evidence of illegal entry noted during audit	Compliant	

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
	• Compulsory surface and underground inductions for those working on site.	Noted, no evidence of illegal entry noted during audit	Compliant
	All visitors must be signed in and out and must be accompanied around the site by authorised personnel.	Noted, no evidence of illegal entry noted during audit	Compliant
3. PROPOSED MINING ACTIVITIES			
3.1 Exploration			
3.1	There are no exploration activities planned for the MOP period.	Noted	
3.2 Land Preparation			
3.2	Other land preparation activities may involve the shaping of disturbed areas to their final landform prior to rehabilitation or the completion of rehabilitation activities to improve the quality of rehabilitation previously undertaken on site.	Noted, none during the audit period.	
3.3 Construction			
3.3	The existing administration, amenities, workshops and coal handling infrastructure associated with the Baal Bone operation will remain for the duration of the Suspended Operations period. There are no further construction activities proposed for the MOP term. However, if construction activities are required, Baal Bone will consult with DOP and LCC along with other stakeholders prior to the commencement of any activities.	Noted	
3.4 Underground Mining			
3.4	There are no underground coal cutting activities proposed for the MOP term.	Noted	
3.5 Activities during Suspension of Mining			
3.5.1	Where salvage was not feasible, materials and equipment were left underground in an environmentally safe manner.	Noted	Compliant
3.5.1	Plant and equipment that was salvaged from the mine was cleaned and is being stored temporarily on the pit top or cut throughs close to the mine entrance prior to removal off site. Where appropriate, equipment that has been salvaged may be sold within the Glencore Xstrata Group. Salvaged equipment that has no residual value, may be scrapped and recycled.	Noted	Compliant
3.5.2	Baal Bone is proposing to continue operation of two main ventilation fans, the South East upcast ventilation fan and pit top (1 adit) ventilation fan throughout suspended operations. The box cut fan (North) has been switched off and it is not anticipated to operate again during the suspended operations period, but may be activated if necessary. The South East fan operational output has been turned down to approx 70% capacity, while the pit top fan will continue to operate at 100% capacity.	South East fan decommissioned and removed in 2013.	Compliant
3.5.2	Electricity, water, compressed air and communications services to the underground mine will continue to operate and be maintained. Services to the buildings, and pit top infrastructure will be retained until the completion of pre-feasibility assessments and a decision on future mining operations is made.	Noted	
3.5.2	Pumping of the boreholes will continue throughout the suspension of operations. Should Baal Bone decide to seal any borehole, detailed sealing designs will be submitted to DTI for approval prior to the commencement of works.	No boreholes sealed during the audit period	Not triggered

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
3.5.2	REA5 cell 1 was capped in April 2012 and it is anticipated that REA5 cell 2 will be capped during the care and maintenance period. REA6 will remain open and will be bunded for safety and security until further decisions are made about the future of the mine site.	Noted during the site inspection, completed as described REA5 cell 2 to be capped in 2014	Compliant
3.5.2	The future of Baal Bone Colliery is currently undecided. When the company determines the direction of Baal Bone Colliery, the mine shall notify the relevant regulatory agencies and stakeholders as well as submitting the appropriate management plans.	Noted by the auditors.	
3.5.3	Baal Bone has developed a Care and Maintenance Mine Inspection Program Matrix. This will be used as a guideline for maintenance scheduling and inspection frequencies. A copy of the matrix is detailed in Appendix 2.	Sighted maintenance scheduling system on site, evidence of the ongoing care and maintenance activities	Compliant
3.5.4	During Care and Maintenance, Baal Bone Colliery will be used as a training and education facility for new Xstrata employees and/or existing employees that require additional training.	Last training group to come through were September 2012.	Compliant
	Training includes, but is not limited to: <ul style="list-style-type: none"> o Energy source isolation, o "No Go Zones", o "Safe Working Zones", o Prestart inspections of machines, o Diesel vehicle and shuttle car operation; o Roof bolting, o Ventilation, o Hazard identification, and o Familiarised with Means of Escape. 	Noted	
	• All "Energy Source" isolation will be carried out as per the Baal Bone Energy Source Isolation Arrangements	Noted	
	• All isolation will be carried out by appropriately trained and authorised personnel.	Noted	
	• All hand held roof bolt installation training will be carried out in an underground area that has been determined as safe and competent under the Baal Bone Strata Failure Management Plan.	Noted	
	• All "Training Bolts" installed are in previously supported roof areas where trainees are protected from a roof fall when learning to bolt.	Noted	
	• During the installation of all "Training Bolts" the trainees will be accompanied and / or supervised by a person competent to do so.	Noted	
	• These "Training Bolts" can be "Pull Tested" for failure if required without having any adverse effect on the immediate surrounding strata.	Noted	
	• The conveyor belt installation training will be done in accordance with CI 81 CMH&S Reg 2006.	Noted	
	• Each training task will have its associated hazards and controls assessed and then it will be placed in a "Work Task Matrix" to determine the amount of supervision by a competent person / persons required for each task	Noted	
	• No cutting of coal will occur as part of the training.	Noted	

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
3.6 CHPP Suspension Strategy			
3.6	As the current future of mining operations at Baal Bone is uncertain, a suspension strategy has been adopted for the CHPP. This will allow the CHPP to be temporarily decommissioned, and then restarted in the future should Baal Bone obtain the necessary statutory approvals required to proceed with other mining operations at the site. Subsequently, Baal Bone has developed a CHPP Suspension Strategy (Doc. CHPP "MOTHBALL" STRATEGY), which includes the following: <ul style="list-style-type: none"> • A decommissioning strategy, which includes the required activities to decommission plant and equipment in a safe and effective manner. • A preservation strategy which includes preservation, storage and ongoing maintenance activities 	Noted	
3.6	The mothballing strategy that has been adopted provides a safe and cost effective method of preserving the current CHPP in the event that mining operations are re-commenced at Baal Bone. Each specific task required to mothball the CHPP plant and equipment will be risk assessed prior to the commencement of activities.	Noted	
3.6	After the CHPP has been mothballed, the following activities around the CHPP will take place during the care and maintenance period: <ul style="list-style-type: none"> • Coal stockpile area will be cleaned up. • CHPP will be secured. • All electricity supply to be maintained. • Sediment traps will be maintained. • Reclaim tunnels and other infrastructure will be man proofed. 	2013 revised MOP states this has been done, site inspection confirms this.	Compliant
3.7 Waste Management			
3.7.1	Though it is chemically benign, this material is not suitable for use as a growth medium. All reshaped areas are therefore covered with a minimum of 300mm of soil (freedig) material to provide a covering layer in which a sustainable and protective vegetative cover will be established.	2012 AEMR states this "is established"	Compliant
3.7.1	Coarse rejects have been strategically placed in and around the southern open cut void to eventually create the design final landform.	Noted during site inspection	Compliant
3.7.3	As mining operations have been suspended, there are no immediate plans to continue emplacement within the reject emplacement area. In the event that approval is to be sought for future mining operations, the future reject emplacement strategy, including management of existing areas, will be developed as part of this process. However, in the event that no further mining operations are to proceed, a detailed capping and rehabilitation strategy will be developed in consultation with DTIDRE.	Noted by the auditors.	Not triggered
3.7.4	An Emergency Spill Response Trailer is retained on site at all times. The trailer contains containment booms suited to local creeks and dams, and sufficient absorbents to cater for a 2,000 L spill. The trailer has been purchased to complement those of Springvale Coal and Delta Electricity such that a range of Emergency Environmental Responses could be addressed.	Trailer is in poor order, materials still on board but trailer roadworthiness and effectiveness in an incident is doubtful.	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
3.8 Pit Top Facilities			
3.8	During the MOP term all infrastructure will be maintained to an operational standard.	Noted	
	In the event that a full mine closure is decided, rehabilitation strategy for pit top facilities is detailed in the mine closure plan.	Noted	Not triggered
3.9 Ore and Product Supplies			
3.9	Following the suspension of operations, all stockpiles will be cleaned of carbonaceous material and left in a stable condition.	All product coal has been removed from the stockpile. Not all carbonaceous material has been removed as the stockpile base is constructed from this material to avoid contamination of product coal.	Compliant
	In the event that a full mine closure is decided, rehabilitation strategy for coal stockpile infrastructure is detailed in the mine closure plan.	Noted	Not triggered
3.10 Overview of Mine Systems			
3.10.1	All adits have been secured with steel gates and will be kept locked at all times throughout suspension of operations.	2012 AEMR states gates were placed on adits in 2011 and a gate lock change also took place. Noted in the site inspection	Compliant
	Access will only be available to approved underground operators for completion of routine underground maintenance, statutory inspections and training activities	The main egress through No.4 adit is only open during operating hours, and access is only be available to approved underground operators for completion of routine underground maintenance, statutory inspections and possible training activities. (2012 AEMR).	Compliant
3.10.2	The remnant southern void will be maintained, until mine closure, as Reject Emplacement Area 6 (REA 6) for the deposition and disposal of coarse reject and tailings from the Coal Handling and Preparation Plant should Baal Bone decide to pursue future mining options.	2012 AEMR confirms this and "During 2013, a final landform design for the entire southern reject emplacement area will be commissioned and completed." Site inspection confirms this	Compliant
3.12 Water Management			
3.12.3	Surface run off from the pit-top area, including the fuel/lube and machinery maintenance areas, is managed by the grit trap and oil separator facility as discussed above in Section 3.7.4. This has a wick type oil separator to remove any surface oil. There are under/over plates on the exit to minimise any residual surface oil film from this water. The water then drains into the dirty water dam which is totally enclosed. From there it is recycled back to the process water dam at the CHPP. The area incorporating the coal stockpiles and CHPP also drains through a grit-trap and oil separator into the dirty water dam for reuse (Plan 4A). Comprehensive surface water management plans and site water balance has been prepared for the site.	Grit traps are maintained and oil separator will be maintained as necessary.	Compliant

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
3.12.4	Sewage and grey water effluent from site facilities, including the administration building, bathhouse, CHPP and amenities are collected in a sump and directed through macerator pumps to an on-site sewage treatment plant (STP). The waste is treated by an activated sludge treatment process then is discharged into two maturation ponds, with a total residence time of approximately 20 days.	Noted	
	Following treatment and maturation the overflow from the second pond discharges onto a well vegetated transpiration bed; this is EPL Discharge and Monitoring Point 2.	Noted	
3.12.6	There are currently two bores (Licence No's. 80BL135509, and 80BL136703) licensed to supply supplementary water, as required. The total volume of groundwater licensed for extraction from all bores is not more than 750 ML in any 12 month period, commencing on the 12 July. The yield from Bore 80BL135509 has proven to be unreliable and its use has since been discontinued. There was no water extracted from Bore 80BL136703 during 2011.	Details not able to be found of the bores so were removed in the revised MOP.	
	A further three licensed bores (Licence Nos 80BL236132, 80BL236134 and 80BL239077) are used as mine dewatering bores LW1-South Bore 1, LW1-South Bore 2 and LW19-North Bore respectively. In the Care and Maintenance phase of the mine, dewatering bores will be maintained and continually monitored. This monitoring will include a volumetric and chemical analysis of the bore water on a monthly basis (if dewatering is active).	Volumetric monitoring occurs monthly and chemical analysis not possible due to access, but chemical analysis is undertaken in dams. See revised MOP	
	Baal Bone Colliery also has another six groundwater monitoring piezometers, four licensed with NSW Office of Water for groundwater quality monitoring in the Cox's River Swamp. The remaining two piezometers do not require a licence due to the shallowness of the bores. The six groundwater monitoring piezometers were installed and equipped with data loggers in 2007 to gather background data and to monitor subsidence effects on local groundwater regimes as part of the SMP for Longwalls 29-31.	Noted by the auditors.	Compliant
3.13 Hazardous Materials Management			
3.13.1	In order to be granted a licence to store explosives, in accordance with the Explosives Regulation (2005), Baal Bone has nominated suitable persons to hold an Unsupervised Handling Licence following appropriate state and federal security background check.	Noted	
3.13.2	Materials Safety Data Sheets (MSDS) are made available to all employees at the Store facility. It is a requirement that MSDS's are submitted to the store or project manager when new materials are brought on site.	Noted and sighted in site inspection	Compliant
3.13.2	A comprehensive online "Chemalert" database is available, which provides all employees easy access to information on all chemicals held on site. Information includes but is not limited to: the safe handling of products, Personal Protective Equipment (PPE) requirements, storage, use and disposal of the materials and spill response procedures. Chemalert is available on most PCs including the one for general employee use in the lamp room.	Noted and sighted in site inspection	Compliant
3.14 Other Infrastructure			
3.14	All powerlines to the site will remain to supply buildings and offices power during the care and maintenance phase of the mine. All mine related gravel tracks, monitoring sites and vent sites present on State Forest land will be maintained during the care and maintenance phase of the mine.	2012 AEMR confirms this. Access Agreement for road works in 2012 seen by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
4. PROPOSED REHABILITATION ACTIVITIES DURING THE MOP TERM			
4.1 Stakeholder Consultation			
4.1	Baal Bone actively seeks to engage and consult the community to provide the community with information relating to the environmental, social and operational performance of Baal Bone and to enable the community to provide feedback.	Community newsletters available to the public, the CCC and a stall at Celebrate Lithgow festival.	Compliant
4.1	Throughout the MOP period, it is proposed to continue with consultation with NSW Department of Trade and Investment, Regional Infrastructure and Services; NSW Department of Planning and other relevant stakeholders regarding the progress of rehabilitation activities being undertaken at Baal Bone.	AEMRS and annual DTIRIS DRE inspections	Compliant
	Baal Bone is continuing to consult with stakeholders regarding mine closure activities and the development of closure criteria; however no activities which prohibit the recommencement of mining operations will be undertaken until a decision on future mining is made.	Ongoing consultation is occurring through the CCC and newsletters	Compliant
4.1	Rehabilitation strategies will also be discussed at Community Consultative Committee meetings. Further information on rehabilitation may also be included in the Baal Bone community newsletter, which provides a mechanism for community feedback in regards to various aspects of Baal Bone Collieries mining operation.	Community newsletters from 2012 and 2013 provide updates on rehabilitation. 2012 AEMR includes rehabilitation as a regular agenda item for the CCC.	Compliant
4.1	Public access to information relating to Baal Bone has been improved through the establishment of a website, as well as a community newsletter, which provide information on the operational, environmental and social performance of the mine. The website can be accessed via the Xstrata webpage at www.xstratacoal.com and by following the links to the Baal Bone archive publications page.	The website has been established, which includes community newsletters and can be accessed from the Xstrata page	Compliant
4.2 Rehabilitation Status at MOP Commencement			
4.2.1	The primary objective in establishing ecological targets is to establish clearly defined, repeatable and consistent methodologies for monitoring changes in various aspects of ecosystem stability, recovery and long-term sustainability. This allows the long term goal of high quality rehabilitation to be achieved. Part of this process includes: <ul style="list-style-type: none"> Establishing a range of relevant reference sites to compare and track the progress of rehabilitation areas and inherent ecosystem function; 	Present in the Land Management Inspection report and Rehabilitation Monitoring Report. Noted by the auditors.	Compliant
	<ul style="list-style-type: none"> Selecting a range of suitable reference sites that reflect the desired final land use, biodiversity targets, historical disturbances and local community expectations; and 	Present in the Land Management Inspection report and Rehabilitation Monitoring Report.	Compliant
	<ul style="list-style-type: none"> Undertaking a monitoring program that provides simple but informative and reliable information that indicates positive recovery trends or rapid detection of rehabilitation failure. 	Present in the Land Management Inspection report and Rehabilitation Monitoring Report.	Compliant
4.2.1	Baal Bone Colliery will ensure that the composition of rehabilitated native woodland and pastures is consistent with local needs, regional planning strategies and adjacent vegetative communities.	Noted	Compliant
	Baal Bone will revise the actual composition of the rehabilitation in line with any changes that might occur with community needs and regional planning strategies.	This has not occurred	Not triggered
4.2.2	In February 2012, 15.9ha of previously rehabilitated land in the Northern rehabilitation area, to the south and west of Ben Bullen Creek was re-seeded and re-fertilised. The rehabilitation works were designed to increase the cover of eucalypts and native grasses.	Noted in site visit and seed mix spreadsheet	Compliant

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
4.2.3	The areas which have not yet been rehabilitated are generally limited to the current surface infrastructure areas. These include the pit-top area, CHPP, ventilation shaft and fan compound, transmissions lines, pipelines, various water management structures and the southern reject emplacement area (Plan 2/3). These areas will be rehabilitated should Baal Bone decide to go into mine closure.	Ventilation shaft has been removed. See revised MOP	
4.2.4	To ensure the land is heading towards the final rehabilitation objectives (as outlined in Section 5.1.1), the preferred methodologies to be used include a combination Landscape Function Analyses (LFA), accredited soil analyses, and an annual rehabilitation walkover inspection.	Landscape Function Analyses (LFA) and accredited soil analyses were completed by DnA Environmental on 16 August 2012 and an annual rehabilitation walkover inspection was completed by Eco Logical Australia Pty Ltd on 12 April 2012.	Compliant
4.2.4.1	In total there were six "woodland" sites and two "exotic pasture" rehabilitation monitoring sites established in 2009, and these sites are revisited annually. Data obtained from three "reference" sites representative of each community type (pasture and woodland) with a moderately disturbed "condition" typical of the local vegetation forms the completion criteria. These reference sites are spread out on an adjoining landholder's property and in the adjoining Ben Bullen State Forest. The performance of rehabilitation monitoring sites indices is then compared to completion criteria derived from reference sites. The completion criterion performance indicators in the LFA are very specific and rehabilitation is measured against this criterion on a yearly basis.	This is undertaken as a part of the annual Rehabilitation Monitoring conducted by DnA Environmental	Compliant
4.2.4.2	Baal Bone Colliery will undertake an annual rehabilitation walkover inspection over previously rehabilitated sites. This will be completed by a suitably qualified environmental officer and will ensure that any land management issues such as weeds and erosion are raised and addressed.	Northern, Southern and Pastures areas are undertaken. Noted by the auditors	Compliant
	Inspections from site personnel will also be undertaken on monthly basis for rehabilitation with pit-top inspections occurring weekly. This should allow for any unforeseen impacts to be highlighted and addressed.	Weekly pit-top inspections occur as part of the weekly environmental inspections. Monthly inspections of northern and southern rehabilitation occurs as per monthly checklist.	Compliant
4.2.5	The Annual Environmental Management Report (AEMR) shall be used as a means by which Baal Bone Colliery can monitor and report on the environmental performance of the rehabilitation measures and their effectiveness. Results from the annual Ecological Rehabilitation Monitoring (comprising the LFA and comprehensive soil analyses) and the annual Rehabilitation Walkover Inspection will be reported in the AEMR.	Annual Ecological Rehabilitation Monitoring and Rehabilitation Walkover Inspection are both included in the 2012 AEMR	Compliant
4.2.6	Implementation of works in Sections 1 and 3 of Ben Bullen Creek commenced in late 2007 and have been completed. Section 2 passes through the existing pit-top area and restoration works will not be initiated until final rehabilitation commences post mine decommissioning.	Noted	
	Under the Part 3A development consent received in January 2011, Baal Bone was required to review its water management systems which included a review of the Ben Bullen Creek Natural Channel Design and Restoration Plan. In late August 2011 Baal Bone engaged the services of Umwelt to complete this review. Final results from the review are currently pending.	2012 AEMR states results were still pending at time of publication. See revised MOP for progress	Compliant

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
4.2.7	Following recommendations provided by the Soil Conservation Service, gypsum has been incorporated at a rate of 5,000kg/ha across the site to ameliorate the high dispersion percentage and to reduce the erodibility of the freedig material. Agricultural lime has also been included in areas identified for pasture seeding at a rate of 2,500kg/ha to assist with both longer term dispersion amelioration and pH adjustment, thereby reducing potential for aluminium toxicity.	Noted by the auditors.	
	A Grower 12 type chemical fertiliser (20:20:40) at a rate of 250kg/ha has been applied on areas that are to be seeded with a predominantly exotic or improved pasture mix, and a low analysis organic type fertiliser (eg. Dynamic Lifter) at a rate of 250kg/ha has been applied on areas with a predominantly native mix.	Noted and sighted in rehab contractor receipts	Compliant
4.2.7	Since 2008 no amelioration to free dig stockpiles has taken place.	Noted	
4.2.9	It is intended to retain and maintain REA 6 for future use should Baal Bone decide to continue operations. Final rehabilitation of this area will occur concurrent with mine closure. Approximately 178,000 m3 of freedig (clay loam) covering material has been stockpiled in readiness. Species used in this rehabilitation will match the species composition that was used in the Southern Area. The box cut will remain open during the care and maintenance period for future mining purposes.	2012 AEMR confirms this and REA 6 has been bunded for safety and security	Compliant
4.2.10	As mentioned in section 4.2.2, areas which have not yet been rehabilitated are generally limited to the surface infrastructure areas. As such, no rehabilitation is projected to occur during the MOP period, as these areas that are still to be rehabilitated will have to remain open during the care and maintenance phase of operations. These areas will remain open to ensure that Baal Bone has the full range of options available if it decides to pursue mining in the future. Rehabilitation of these areas and the Stage 3 reestablishment of Ben Bullen Creek are part of mine closure final rehabilitation and are discussed further in Section 5.	Noted	Compliant
4.2.10.1	On 1 March 2012, Baal Bone received approval from the Department of Trade and Investment to discontinue use of REA 5 and capping of REA 5 Cell 1 commenced on 11 April 2012.	Capping was completed in April 2012 (2012 AEMR, 2.6.1)	Compliant
4.2.10.1	The rehabilitation of REA 5 will involve the following major steps. The proposed works will include:	Expected geotechnical assessment will confirm Cell is sufficiently dry to progress	Compliant
	• Dewatering of the tailings dam: REA 5 Cell 2 is still currently drying out. Any excess water will be pumped out of the void where required and the tailings material shall be left to naturally consolidate to the floor of the dam.		
	• Deposition of overburden: Once the area is determined to be dry enough, nearby coarse reject material from on-site stockpiles will be deposited within the dam structure using approved plant and mobile equipment. A layer of spoil material will be placed on the coarse reject surface to provide an impermeable sealing layer.	This has not occurred	Not triggered
	• Creation of adequate soil: Soil for rehabilitation will be obtained and spread on the surface.	This has not occurred	Not triggered
	• Planting of vegetation: The filled dam will be landscaped in a way that blends into the surrounding natural environment with the deposition of soil and revegetation of the area with the objective of creating a combination of native ecosystem conservation and forestry.	This has not occurred	Not triggered
	• Ongoing monitoring: monitoring of the site will continue into the future.	This has not occurred	Not triggered

Reference	Requirement	Evidence	Audit Finding												
Mining Operations Plan (Feb 2012)															
	The capping of REA 5 is expected to take six months following the settlement and dewatering of the facility. Baal Bone has decided not to rehabilitate REA 5 during the MOP period as the area could be potentially used for the emplacement of coarse reject in the future if mining recommences. Therefore the third and fourth step described above will not be completed during this MOP period, and will only commence once the mine goes into full closure.	This has not occurred	Not triggered												
4.2.10.2	The results of ongoing rehabilitation monitoring activities (as detailed in Section 4.2.4), including the annual rehabilitation walkover inspection and the landscape function analysis, will be utilised to ameliorate existing rehabilitation as necessary. These monitoring tools will report the condition of the rehabilitation against the completion criteria (Appendix 6), ensuring that the rehabilitation is heading towards its final landuse. The completion criteria used in the yearly analysis will be a percentage of final completion criteria. This percentage will be increased on a year-to-year basis, ensuring that species diversity, species abundance and vegetation structure improve through time, eventually reaching 100% of the completion criteria.	Noted	Compliant												
	These tools will also ensure that any land management issues such as weeds, erosion, sediment control and feral animals are highlighted and dealt with in a timely manner. Therefore, Baal Bone is unable to draw up a plan of proposed augmentation over the MOP period, as augmentation will occur yearly based on the results of the monitoring activities. The augmentation will most likely involve reseedling of particular species (if an area is deficient) or the application of fertilizer if the soil is lacking fertility.	Weed management measures were noted by the auditors however feral animal control has not been deemed necessary to implement.	Compliant												
4.4 Buildings															
4.4	It is envisaged that all buildings and infrastructure will be used for the ongoing underground operations and training and will not be removed until the closure of the underground mine.	Noted	Not triggered												
4.5 Rehabilitation Trials and Research															
4.5	Following a detailed review of the effectiveness of the various treatments, a preferred methodology has subsequently been developed for all future rehabilitation works. The incorporation of recycled organic material was also used on a small area of creek banks during 2008. The learning's from this exercise will also be used to guide future rehabilitation works in similar areas.	Noted	Compliant												
	<p>Table 4.2: Summary of Proposed Rehabilitation</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3">Area Affected/Rehabilitated (ha)</th> </tr> <tr> <th>Total Area at Start of MOP - 2012</th> <th>Total Area at End of MOP* - 2015</th> <th>At Mine Closure (anticipated)</th> </tr> </thead> <tbody> <tr> <td colspan="3">A: MINE LEASE AREA</td> </tr> <tr> <td>A1 Mine Lease(s) Area</td> <td>5002 ha</td> <td></td> </tr> </tbody> </table>	Area Affected/Rehabilitated (ha)			Total Area at Start of MOP - 2012	Total Area at End of MOP* - 2015	At Mine Closure (anticipated)	A: MINE LEASE AREA			A1 Mine Lease(s) Area	5002 ha		Reported annually in the AEMR.	Compliant
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	<p>E: SURFACE OF REHABILITATED LAND (Cumulative)</p> <table border="1"> <tr> <td>E1</td> <td>Pasture and grasses</td> <td>62.49 ha</td> <td>62.49 ha</td> <td>89.39 ha</td> </tr> <tr> <td>E2</td> <td>Native forest/ecosystems</td> <td>74.88 ha</td> <td>74.88 ha</td> <td>181.48 ha</td> </tr> <tr> <td>E3</td> <td>Plantations and crops</td> <td>Nil</td> <td>Nil</td> <td>Nil</td> </tr> <tr> <td>E4</td> <td>Other (include non-vegetative outcomes)</td> <td>Nil</td> <td>Nil</td> <td>Nil</td> </tr> </table>	E1	Pasture and grasses	62.49 ha	62.49 ha	89.39 ha	E2	Native forest/ecosystems	74.88 ha	74.88 ha	181.48 ha	E3	Plantations and crops	Nil	Nil	Nil	E4	Other (include non-vegetative outcomes)	Nil	Nil	Nil	Reported annually in the AEMR.	Compliant										
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Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
5. FINAL REHABILITATION AND MINE CLOSURE			
5.1 Rehabilitated Areas and Features			
5.1.1	The principal objective for the rehabilitation of mined land at Baal Bone is to return the site to a condition where its landforms, soils, hydrology, flora and fauna are self-sustaining, and compatible with the surrounding land fabric. To achieve these overall aims, completion criteria have been prepared (Appendix 6) which highlight numerical values in different categories such as water quality, ecosystem health, and landform shape. This allows Baal Bone to set targets which are measurable and consequently will show how Baal Bone is progressing towards full closure.	Noted	
5.1.1	Regrading has and will be undertaken to produce slopes whose angles, lengths and shapes are compatible with proposed land capability classifications suitable for the proposed land use and not prone to an unacceptable rate of erosion. Integrated with this is a drainage pattern which is capable of conveying runoff from the newly created catchments whilst minimising risk of erosion and	Noted, grading observed in site generally meets these requirements	Compliant
5.1.1	All soil conservation and erosion control drainage structures (viz. graded banks, chutes and flumes) will be designed in accordance with SCS Technical Handbook No. 5, Design Manual for Soil Conservation Works. All sediment and/or pollution control facilities will be designed in accordance with Volume 1 and Volume 2E of Managing Urban Stormwater: Soils and Construction (Landcom 2004 and DECC 2008 respectively)	None designed in the audit period	Not Triggered
5.1.1	Regrading will be conducted generally in accordance with the design slope gradients outlined in Plan 6 of the MOP. The majority of overburden areas will be regraded with dozers and at this stage it is planned to maintain the Over-Shot Dam on site.	Noted	Compliant
5.1.1	Seeding of both native and exotic species will generally be via aerial (helicopter) and/or ground spreading directly into a prepared and ameliorated seedbed. The soil surface will be left in a roughened condition and harrowing will not generally be undertaken following seeding. Some hydroseeding and strawmulching may be required on steep or otherwise inaccessible areas. Further detail and methodology will be provided in the Detailed Mine Closure Plan which is currently being	Invoice from 19/3/12 sighted for aerial reseeded of North Open Cut area (seed referred to as "Native Seed" only with no speciation)	Compliant
5.1.2	Additionally, the mine fan, shaft and powerline corridor in Ben Bullen State Forest will be rehabilitated. The ventilation shaft will be back filled with suitable material and capped with concrete, and the entire site will be contoured and re-topsoiled to achieve the pre-disturbance landform. The grass species planted during the operational phase will be removed and the area will be revegetated with a mixture of native seed sourced from the surrounding area (if required). Former power pole locations will be filled, seeded and subject to weed control.	Demolition occurred in 2013. Rehabed site observed	Compliant
5.1.2	Final rehabilitation of outstanding areas will commence if Baal Bone decides to go into a complete closure. All infrastructure will be demolished and removed during decommissioning in accordance with the Demolition Closure Study (Liberty Industrial, 2008) and Australia Standard: AS 2601 Demolition of Structures. All mine entries will be sealed in accordance with the approved Mine Seal Design, provided by Burke Engineering Services.	Noted	Not triggered
5.1.3	Following completion of site decommissioning and rehabilitation works, Baal Bone will undertake ongoing monitoring and maintenance of the site until the site achieves an acceptable level of regeneration, as determined in consultation with DTIDRE (Forests NSW) and DTIDRE (Mineral Resources).	Noted	Not triggered

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
5.1.3	Baal Bone has developed a scientifically-based Rehabilitation Maintenance and Monitoring Plan which uses the concept of Landscape Function Analysis (LFA) and rapid ecological assessment, both of which have been developed by the CSIRO (Tongway & Hindley 1996; and Gibbons 2002).	Noted, observed in other areas of the audit	Compliant
5.1.3	Details are available in the Rehabilitation Maintenance and Monitoring Plan, which was developed by Dr Donna Johnson of DnA Environmental. The document was prepared in accordance with XCN SD ANN 0039 Completion Criteria Development and Rehabilitation Monitoring and is located in Appendix 6	Noted	Compliant
5.1.3	A weed control program will be implemented during this rehabilitation care and maintenance phase as well as during the operational phase. This will involve regular checks for weeds and feral animals, with implementation of control programs where necessary.	A comprehensive weed spraying program targeting Blackberry, Bidy Bush (<i>Cassinia arcuata</i>) and isolated populations of Serrated Tussock (<i>Nassella trichotoma</i>) was undertaken in January and March 2012. Further blackberry spraying was undertaken in December 2012 and January 2013. Monthly monitoring looks for weeds but does not specifically look for feral animals	Compliant
5.2 Mine Closure Planning			
5.2	In accordance with XCN SD ANN 0038 Mine Closure Planning, Baal Bone has commenced preparation of a Detailed Mine Closure Plan. Activities completed and/or initiated include the following: <ul style="list-style-type: none"> • Desktop Constraints and Opportunities Analysis for Mine Closure (Umwelt Australia), • Final Landuse Options Workshop and Risk Register (GSSE Environmental), • Preparation of draft closure objectives and completion criteria for final Landuse options, • Phase 1 and Phase 2 Contamination Survey and Assessment (ENSR Australia), • Hazardous Materials Survey and Sire Register (SP Solutions), • Completion of a Demolition and Dismantlement Closure Study for the site (Liberty Industrial), • Finalisation of Mine Seal Design (Burke Engineering Services), • Indicative market valuation of final Landuse options and accompanying cost to benefit and economic analysis of Landuse options (Trevor Hudson and Associates), • Mine Closure Social Impact Assessment (Coakes Consulting), and • Development and progressive implementation of Mine Closure Consultation Strategy. 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.1.1	As a result of these activities, a decommissioning plan has been developed for each domain within the mine area. The plan is to be revised yearly in accordance with any changes that may occur with company goals, legislation and planning.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	On completion of mining within this area the following works are required to be undertaken to finalise the rehabilitation works for the area and satisfy the completion criteria (Appendix 6):	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
	<ul style="list-style-type: none"> Removal or all redundant and stored equipment within the operational area in and around the Northern Void either to a further storage area or scrapped; 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	<ul style="list-style-type: none"> Sealing of adits and underground entries in accordance with the engineering designs as developed by Burke Engineering for Adits 8 – 11; 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	<ul style="list-style-type: none"> Sealing of Longwall 19 Ventilation Shaft in accordance with the engineering designs as developed by Burke Engineering; 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	<ul style="list-style-type: none"> Shaping of the low-wall to <math><18^{\circ}</math> and final landform. After final shaping of the highwall and low-wall the areas are to be topsoiled +100mm then deep ripped along contour; 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	<ul style="list-style-type: none"> Soil sampling and amelioration; 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	<ul style="list-style-type: none"> Seeded with a ground cover (grasses) for initial stabilisation and with native tree species to establish open woodland on areas that would not be inundated by the void filling; 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	<ul style="list-style-type: none"> Blasting activities to highwall areas to achieve a batter of <math><180</math>. Specific consideration must be given here to the potential interaction between the proposed blasting operations and the seal integrity to ensure that basting activities do not compromise the integrity of all seals; 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	<ul style="list-style-type: none"> Dozer push of liberated materials to create a stable batter less than <math><180</math>; 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	<ul style="list-style-type: none"> Drainage controls be developed and installed for the inlet of runoff waters to the void area to prevent scouring and piping consistent with the Draft Guidelines for Designing Stable Drainage Lines on Rehabilitated Mine Sites formulated by the NSW Department of Land and Water Conservation (1999); and 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
	<ul style="list-style-type: none"> Establishment of a highwall perimeter safety berm, with a highwall slope at less than 18° perimeter fencing is unlikely to be required. 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.1.2	After final rehabilitation of Domain 1 the area will be placed under post-closure care and maintenance until final closure objectives have been achieved, after which relinquishment of the area from the mining lease will be requested.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	Post-closure care and maintenance activities will include; <ul style="list-style-type: none"> Ongoing monitoring (rehabilitation and water quality); Maintenance of the voids safety berm; Remedial works where required; and Weed and pest management. 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	The ongoing monitoring activities will include water sampling as agreed to with the regulators as well as the rehabilitation walkover and landscape function analysis as discussed in Section 4.2.4.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.2.1	The post mining landuse for Domain 2 is native woodland with pasture areas. For this domain to satisfy the completion criteria, as stated in Appendix 6, the area must: <ul style="list-style-type: none"> Demonstrate adequate ecosystem health, functioning and structure; Contain soils that have been sufficiently ameliorated in line with the guidelines in the completion criteria; Ensure water quality meets the EPL guidelines; and 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.2.2	After final rehabilitation of Domain 2 the area will be placed on post-closure care and maintenance until final closure objectives/criteria have been achieved after which relinquishment of the area from the mining lease will be requested.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	Post-closure care and maintenance activities will include; <ul style="list-style-type: none"> Ongoing monitoring (rehabilitation and water quality); Remedial works where required (erosion control and reseeded); and Weed and pest management. 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
	The ongoing monitoring activities will include water sampling as agreed to with the regulators as well as the rehabilitation walkover and landscape function analysis as discussed in section 4.2.4.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
5.2.3	The Domain 3 area includes: <ul style="list-style-type: none"> • CHPP including crushing and breaking plant, the washery plant, and the associated coal conveyors; • Sewage treatment plant; • Two coal stockpile areas; • The rail loop - is a 7km long spur line from the Wallerawang-Gwabegar line, terminating at a 200m radius balloon rail loop. The loop is equipped with signalling systems and 1,000 t loading bin; • Access Road; and • Ventilation shaft in the State Forest. 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.3.1	The proposed demolition works at the CHPP, Sewerage Treatment Plant, Rail Loadout, Road Access and Rail Loop are considered a specialised skill set and therefore an appropriately authorised organisation will be engaged to undertake the works, in accordance with the Xstrata Coal NSW Contract Management System. Specifically, it is noted that all demolition works will require conformity to Australia Standard: AS 2601 Demolition of Structures, applicable legislation and the site management plans (including the preferred contractors Safety Management System).	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.3.1	It is expected that the loadout bin will be demolished through the use of explosives to bring the structure to the ground and then physically removed in accordance with the inert waste disposal process. This demolishing activity will be undertaken by experienced and competent explosive personnel.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.3.1	A significant portion of the plant and equipment currently utilised on the site is in need of an overhaul and/or decommissioning (as a general statement). Preference would be given to decommissioning plant and equipment to other Xstrata sites for ongoing operations as opposed to a straight demolition and recycling.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.3.1	The decommissioning works within Domain 3 will include the physical removal and disposal of carbonaceous materials. Under the current approved LOM plan it would be expected that this material would be disposed of at depth and with satisfactory capping within the Southern Void area. The destination of this material should however be assessed during the decommissioning activities to ensure that the material is appropriately utilised to assist in achieving final landform for the site. Where possible, material sourced from the decommissioning activities would be recycled.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.3.1	The disposal of concrete and other inert wastes would be expected to utilise similar voids and areas used for the disposal of carbonaceous material from the stockpiles. From a statutory perspective and in accordance with legal advice obtained relating to the disposal of inert waste at Liddell Coal (Minter Elliston advice to Liddell Coal, 16 April 2009), it is deemed that the Protection of the Environment Operations Act 1997 does not require Baal Bone Colliery to obtain an EPL to dispose of the inert waste in the open cut.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
5.2.3.1	Decommissioning works associated with the rail loop and the Wallerawang-Gwabegar spur line will incorporate the following works: <ul style="list-style-type: none"> • Removal of rail line to either be sold as spare rail gauge for ARTC or scrapped by recognised scrap metal dealer. • The removal and sale of ballast material to other businesses or otherwise disposal of this ballast within voids located across the colliery holding to assist in achieving final landforms subject to the Phase 1 and 2 Contaminated Land Assessment which has been undertaken. • The cut and fill of the existing rail line foundations to reinstate the natural ground surface. • Where required area will be topsoiled and ripped with fertilisers and soil remediation (e.g. gypsum applied). • Revegetation will be by seeding. Seed mixtures will be applied as per final land use (grassland or native woodland) requirements. 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.3.1	It has been noted by joint inspections undertaken with Forests NSW that many of the cuttings on the Western side of the spur line, installed to support both the existing Baal Bone operations and the historic Ben Bullen Open Cut, are extremely stable and pose little, if no environmental or safety liability. In these circumstances, it would be recommended that these cuttings would be retained and revegetated.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.3.1	The access to Baal Bone is bitumen and is also located within the area covered by Mining Purposes Lease as maintained within DTIDRE. Ongoing access to the Colliery Surface area and into the Forests NSW lands will be required post closure of the colliery for ongoing maintenance and fire management. It would be recommended that this road be maintained post closure for the benefit of Forests NSW post mining access and to support access to the post mining land use subject to agreement with Forests NSW.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.3.1	The Mine Closure Schedule and Resources for Mine Closure in Section 4 and recommendations made by Liberty International state that during decommissioning: <ul style="list-style-type: none"> • Demolition of structures will be supervised by a competent person at all times and that team members will not carry out any Demolition work without Job Hazard Analysis (JHA) and a clear understanding of the work and work methods to be undertaken. • The demolition sequence will be confirmed by the Project Manager. • Any sealed vessels or containers will be gas tested prior to processing. • All team members will have the statutory qualifications applicable for their area of work or specific duties. • Verification in writing of the termination of services must be supplied prior to the commencement of each and every area of demolition. • No structure will be left unsafe or in an unstable condition. • Any build-up of debris, rubble and recyclable material will be sorted into its' waste stream area on site and/or removed from site to the nominated landfill or lay down area in a progressive manner as demolition proceeds. • Housekeeping is of utmost importance. The site may become congested creating safety hazards if 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
	<ul style="list-style-type: none"> • All scrap processing will be carried out by mechanical means (shearing) where possible and by oxy cutting techniques where required. • The demolition and lay down area will be fenced off and monitored as required to prevent unauthorised access. • All mobile equipment will have fully enclosed cabins further reducing the risk of exposure to heat, cold, dust and site contaminants. • Inspections will be conducted by a structural engineer prior to the demolition of each area and building where a “collapse” method is to be used. This inspection will confirm the items of equipment needed to be removed and specific cuts to be made to achieve the desired outcome A task specific JHA will be developed in consultation with all team members and signed off by each team member prior to work commencing. • Prior to the demolition of each building or structure, a team briefing will be held so that the aims and procedures are clear to each team member. Notification will be given of impending works that may affect adjacent workplaces. • To minimise the effects of dust, all structures will be inspected to determine the extent of washing down that may be required. A de-dusting program will be implemented which will consist of washing down affected structures by water cannon, hoses or water truck. The lay down area and roads will also be wetted down continuously. Prior to the collapsing of any structures, the surrounding area will be wetted down. • All personnel will be issued with two way radios to facilitate communication. 	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	<p>Not Triggered</p>
	<ul style="list-style-type: none"> • A pre demolition check will be carried out prior to the commencement of work on each structure. A Job Hazard Analysis/Work Method Statement will be completed for each area. • Consideration must be given to the potential for asbestos or other hazardous material to be present when conducting the Job Hazard Analysis/Work Method statement. If asbestos or hazardous materials are identified they need to be removed prior to demolition commencing. • When processing the scrap materials – excavators fitted with shears will shear the heavy steel into export grade (HMS1 – 4ft x 4ft). Where steel that is too large to shear, oxycutting processing labourers will assist the machinery in the Laydown yard. • Pumps motors, cabling etc will be loaded into 20 and 40ft containers placed on the end (vertical) to maximise the space available. • All ferrous and non-ferrous will be graded for maximum return and not to cross contaminate loads. The materials will be loaded into containers or steel bins to be removed from site. Given the location of Baal Bone – removing the steel by rail is a possibility or conventionally by trucking it out of the site. The closest port to export all materials is Port Kembla and this port would be ideally suited given the sites western location. 	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	<p>Not Triggered</p>
<p>5.2.3.2</p>	<p>After final rehabilitation of Domain 3, the area will be placed on post-closure care and maintenance until final closure objectives/criteria have been achieved after which relinquishment of the area from the mining lease will be requested.</p> <p>Post-closure care and maintenance activities will include;</p> <ul style="list-style-type: none"> • Ongoing monitoring (rehabilitation and water quality); • Remedial works where required (e.g. erosion control, reseeding, fertilizer application, watering); and • Weed and pest management. 	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	<p>Not Triggered</p>

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
	The ongoing monitoring activities will include water sampling as agreed to with the regulators as well as the rehabilitation walkover and landscape function analysis as discussed in Section 4.2.4.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.4.1	As noted previously, the preference is for the reuse of facilities within Domain 4 within the Xstrata Coal group where possible. Should this not occur, the demolition of the facilities has been detailed within the Demolition Assessment as undertaken by Liberty International.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.4.1	The demolition of the facilities will be undertaken by conventional demolition practices with the exception of the Adits 1 to 5. In this instance, the decommissioning of these facilities is required to be undertaken in accordance with the requirements of DTIDRE as defined within MDG 6001 - Guideline for the Permanent Filling and Capping of Surface Entries to Coal Seams (NSW Department of Primary Industries – Mineral Resources, [undated] Draft). In order to comply with these requirements, Baal Bone engaged Burke Engineering Services to develop engineered designs for sealing Adits 1-5 (Sept 2008).	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.4.1	The demolition works proposed for Domain 4 will be required to be undertaken by a recognised demolition contractor as detailed previously. It is recognised materials will be recycled where possible, such as scrap metals, however material such as concrete material from foundations and workshop areas will be disposed of within voids located at the site sympathetic to the final landforms proposed for the site.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.4.1	Details relating to the controls for the decommissioning works as proposed for Domain 4 are described by Liberty International within the Demolition and Dismantling Management Plan for Baal Bone Colliery (Liberty International, August 2008).	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.4.1	The Hazardous Material Site Register as maintained by Baal Bone indicates that a number of types of Hazardous Materials are present within the Domain 4 that will require detailed attention during the decommissioning works. These materials include the following as detailed in Table 5.1.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
5.2.4.1	<p>Within the demolition assessment, as undertaken by Liberty International, a recommendation relating to the management of hazardous materials was included for where either Asbestos or Synthetic Mineral fibre is suspected. Recommendations relating to these controls are included below for further reference:</p> <ul style="list-style-type: none"> • A site meeting will be carried out with the Asbestos Contractor prior to commencement of the works. • No changes are to be made to the work programme for any hazardous materials, without consultation with the Project Manager. • A transport register will be maintained for all materials leaving the site. • An EPA transport certificate will be supplied for each traffic movement if required. • Disposal documentation will be supplied for each load. • A Code of Conduct will be supplied, discussed and adhered to by all members handling hazardous material. • Where practical, SMF material will be removed prior to demolition and disposed of as per asbestos 	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	Not Triggered
5.2.4.1	<p>The timing for decommissioning the facilities associated with Domain 4 is contained within the Project Closure Schedule. In this instance, decommissioning of the facilities can and should be undertaken following the completion of and demobilisation of underground mining equipment.</p>	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	Not Triggered
5.2.4.1	<p>It is also noted hydrocarbon contamination is expected to be encountered when undertaking decommissioning works within Domain 4 (specifically associated with the removal of the underground refuelling facilities). All hydrocarbon contaminated materials encountered will be treated on site at a bioremediation bay.</p>	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	Not Triggered
5.2.4.1	<p>These activities that will take place will ensure that Baal Bone will satisfy the completion criteria mentioned in Appendix 6. In particular, the criteria states that all mining infrastructure is to be removed, all adits sealed, and the land is to return to a stable environment. The completion criteria states that the environment for this domain is to be exotic pasture species.</p>	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	Not Triggered
5.2.4.2	<p>After final rehabilitation of Domain 4 the area will be placed on post-closure care and maintenance until final closure objectives/criteria have been achieved after which relinquishment of the area from the mining lease will be requested.</p> <p>Post-closure care and maintenance activities will include;</p> <ul style="list-style-type: none"> • Ongoing monitoring (rehabilitation and water quality); • Remedial works where required (e.g. erosion control, reseeded, fertilizer application, watering); and • Weed and pest management. 	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	Not Triggered
5.2.4.2	<p>The ongoing monitoring activities will include water sampling as agreed to with the regulators as well as the rehabilitation walkover and landscape function analysis as discussed in Section 4.2.4.</p>	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
5.2.5.1	Final landuse for Domain 5 is native woodland. The area has been shaped to final landform and revegetated. The area contains no infrastructure which requires decommissioning. The completion criteria, contained in Appendix 6, state that within Domain 5: <ul style="list-style-type: none"> • The landform must be stable and blend in with the surrounding landscape; • The water quality must be within EPL guidelines; and • Native Woodland is established that satisfies ecosystem health, functioning and structure goals. 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.5.2	Post-closure care and maintenance activities will include; <ul style="list-style-type: none"> • Ongoing monitoring (rehabilitation and water quality); • Remedial works where required (e.g. erosion control, reseeding, fertilizer application, watering); and • Weed and pest management. 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.5.2	Domain 5 contains no infrastructure which requires decommissioning. The ongoing monitoring activities will include water sampling as agreed to with the regulators as well as the rehabilitation walkover and landscape function analysis as discussed in Section 4.2.4.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.6	On 1 March 2012, Baal Bone received approval from the Department of Trade and Investment to discontinue use of REA 5 and capping of REA 5 Cell 1 commenced on 11 April 2012. Cell 2 is currently still drying out.	Capping of cell 1 was completed in April 2012 (2012 AEMR, 2.6.1) Cell 2 is expected to be capped in 2014	Compliant
5.2.6	As part of the planned care and maintenance phase while potential future landuse options for the mining site are finalised, the capping of REA 5 will continue as planned with the other remaining reject emplacement area (REA 6) being left open for potential future mining activities.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.6.1	Previous assessments have concluded that there is sufficient storage capacity in the current REA to accommodate coarse rejects and tailings disposal activities under the approved Life of Mine Plan. Indeed, the placement of coarse rejects in the REA is being strategically undertaken to create the final design landform for the area.	Noted	
5.2.6.1	In accordance with the nominated Completion Criteria, it is expected that drainage paths, contour drains, ridgelines and emplacement will be shaped in a manner consistent with the natural landforms of the surrounding environment and the accepted design guidelines contained within Volume 1 and Volume 2E of Managing Urban Stormwater: Soils and Construction (Landcom 2004 and DECC 2008 respectively). In this instance, particular consideration must be given to the entry of the drainage line from Domain 6 to Ben Bullen Creek and tributary drainage lines crossing the current highwall areas of Domain 6.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
5.2.6.1	Approval for REA 6 as issued on the 12th February 2008 contains the following specific requirements for the decommissioning of this facility: <ul style="list-style-type: none"> • The works will be conducted in the manner as outlined within the document titled “Construction and Operation of Reject Emplacement Area (REA) 6 at Baal Bone Colliery – January 2008” and supporting documentation.” • A geo-technical report assessing the long-term stability of the co-disposal area shall be provided to the District Inspector of Coal Mines prior to the capping and contouring to the final landform. 	This work occurred prior to the audit period	
5.2.6.1	REA 5 as issued on the 14th November 2005 and contains the following specific requirements for the decommissioning of this facility: <ul style="list-style-type: none"> • The works be conducted in the manner as outlined with the document titled “Application Under Section 126 of the Coal Mines Regulations Act 1982; Construction and Operation of Reject Emplacement Area 5 (REA 5) at Baal Bone Colliery” and supporting documentation. 	This has not been decommissioned yet, currently dewatering.	Not Triggered
5.2.6.1	In care and maintenance, REA 5 is to be filled, but not capped and rehabilitated. This is due to the potential use of the REA 5 area for further coarse reject emplacement. Therefore, during mine closure, REA 5 will have to be capped and rehabilitated in accordance with the requirement of the Department of Primary Industries.	This has not been decommissioned yet, currently dewatered but not capped.	Not Triggered
5.2.6.1	The rehabilitation works associated with achieving compliance with the Closure Objectives of Native Vegetation within the area would be in accordance with XC HSEC STD 8.1 - Tailings Storage Management.	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.6.1	Rehabilitation activities would include: <ul style="list-style-type: none"> • Placement of capping material; • Final shaping and construction of waterways and waterworks (drainage); • Placement of topsoil/growth medium at a minimum depth of 100mm. Addition of soil ameliorants, organic material and fertilisers as required or indicated by soil sampling; • Ripping the area along contours; • Seeding with a groundcover (native grasses or cereal crop) for initial stabilisation; • Seeding with native woodland species this can be done in conjunction with the ground cover seeding. 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered
5.2.6.1	Highwall-earthworks would include: <ul style="list-style-type: none"> • Blasting activities to highwall areas to achieve a batter of less than 18°. Specific consideration must be given here to the potential interaction between the proposed blasting operations and the seal integrity to ensure that basting activities do not compromise the integrity of all seals. • Dozer push of liberated materials to create a stabile batter less than less than 18°. • Drainage controls be developed and installed for the inlet of runoff waters to the void area to prevent scouring and piping consistent with the Draft Guidelines for Designing Stable Drainage Lines on Rehabilitated Mine Sites formulated by the NSW Department of Land and Water Conservation (1999). • Establish a highwall perimeter safety berm, with a highwall slope at less than 18° perimeter fencing is unlikely to be required. 	The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
5.2.6.2	<p>After final rehabilitation of the southern void (tailings facility) the area will be placed under post-closure care and maintenance until final closure objectives/criteria have been achieved after which relinquishment of the area from the mining lease will be requested.</p> <p>Post-closure care and maintenance activities will include:</p> <ul style="list-style-type: none"> • Ongoing monitoring (rehabilitation and water quality); • Remedial works where required (erosion control and reseeded); and • Weed and pest management. 	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	Not Triggered
	<p>The ongoing monitoring activities will include water sampling as agreed to with the regulators as well as the rehabilitation walkover and landscape function analysis as discussed in Section 4.2.4.</p>	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	Not Triggered
5.2.7	<p>A Subsidence Monitoring Program was used to monitor subsidence of the surface overlying longwalls 29 to 31, which employed a range of techniques including visual inspections, photographic and video and survey monitoring. Results from the inspection and monitoring schedule were reported immediately following each inspection as well as four monthly and end of panel reports.</p>	<p>Four monthly and end of panel reports were completed, available on the website.</p>	Compliant
5.2.7	<p>The only infrastructure occurring within Domain 7 is the extraction fan with associated powerlines and access roadways. The ventilation shaft will be sealed and all infrastructures removed and the access road rehabilitated. The work to be undertaken is described in Section 6.8.</p>	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	Not Triggered
5.2.7	<p>Inspections of subsidence areas will be completed on an as required basis until relinquishment of Occupation permits with State Forest.</p>	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	Not Triggered
5.2.7.1	<p>Monitoring programs for public safety will be discussed with State forests during Post-closure Care and Maintenance.</p> <p>Mine closure planning activities proposed for this MOP period will focus on:</p> <ul style="list-style-type: none"> • Confirmation of planned closure budget for approved landuses; • Refinement/finalisation of closure objectives and completion criteria for approved final landuse options; • Development of scientifically based Rehabilitation Maintenance and Monitoring Plan using the concept of Landscape Function Analysis; • Detailed Environment and Community Risk Assessment with respect to approved final landuses; and • Development and collation of a Detailed Mine Closure Plan to detail the scope of all physical site works required, social mitigation/communication strategies, implementation costs, monitoring requirements, "sign off" and relinquishment procedures, closure indicators/milestones, and 	<p>The mine closure plan has not been completed and provided to the regulatory authorities for approval and is not triggered by any consent requirements at this time.</p>	Not Triggered

Reference	Requirement	Evidence	Audit Finding																																																								
Mining Operations Plan (Feb 2012)																																																											
6. ENVIRONMENTAL AND REHABILITATION RISK AND IMPACT IDENTIFICATION																																																											
6.1 Broad Brush Risk Assessment																																																											
6.1	The only major environmental issue appearing on the 2010 BBRA Risk Register related to the potential for mining related damage to the Wolgan Escarpment. This risk is currently being managed through the Subsidence Management Plan, and more specifically the Wolgan Escarpment Management Plan which has been prepared as a condition of the SMP approval.	Noted	Compliant																																																								
6.1	Baal Bone will not be conducting any Broad Bush Risk Assessments during the suspended operations period. However Environment and Community risk assessments will continue to occur.	Most recent Env & Community RA conducted in March 2012	Compliant																																																								
6.2 Environment and Community Risk Assessment																																																											
6.2	<p>Table 6.1: Summary of High Risk Issues for Suspended Operations Period (2011 Environment and Community Risk Assessment)</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Aspect</th> <th>Impact</th> <th>Existing Control</th> <th>Consequence</th> <th>Probability</th> <th>Risk Score</th> <th>Additional Controls</th> </tr> </thead> <tbody> <tr> <td colspan="8">Ancillary</td> </tr> <tr> <td>Removing/Installing Mining Equipment</td> <td>Waste generation and disposal</td> <td>Resource depletion</td> <td>Underground waste collection system, Waste Management Plan (WMP), Oil Drum Waste Management Procedure</td> <td>1</td> <td>E</td> <td>11</td> <td>Awareness training of Waste Management System with new contractors</td> </tr> <tr> <td>Ventilation Shaft</td> <td>Discharge of ventilation air</td> <td>Emission of carbon dioxide and methane</td> <td>Weekly and Quarterly Diesel testing, 2-hourly monitoring of methane, monthly bag samples, gasguard system, NPI and NGRS recorded monthly and reported annually</td> <td>1</td> <td>E</td> <td>11</td> <td></td> </tr> <tr> <td>Underground Maintenance</td> <td>Waste generation and disposal</td> <td>Resource depletion</td> <td>Underground waste collection system, Waste Management Plan (WMP), Oil Drum Waste Management Procedure</td> <td>1</td> <td>E</td> <td>11</td> <td>Awareness training of Waste Management System with new contractors</td> </tr> <tr> <td>Coal Transport/Storage</td> <td>Operational Noise</td> <td>Action from DoP/OEH - non-compliance with approval noise limits</td> <td>Neighbours not concerned but not willing to sign agreement. Continuous monitoring at Speirs (R2) property. Quarterly attended noise monitoring at all three receptor locations</td> <td>2</td> <td>D</td> <td>12</td> <td></td> </tr> <tr> <td>Site Security</td> <td>Unlawful public access</td> <td>Community safety</td> <td>Main gate, security cameras, signage, security management plan, additional signage and gates, change locks, access doors secured, engagement of security company.</td> <td>3</td> <td>D</td> <td>17</td> <td>Review security regularly</td> </tr> </tbody> </table>	Activity	Aspect	Impact	Existing Control	Consequence	Probability	Risk Score	Additional Controls	Ancillary								Removing/Installing Mining Equipment	Waste generation and disposal	Resource depletion	Underground waste collection system, Waste Management Plan (WMP), Oil Drum Waste Management Procedure	1	E	11	Awareness training of Waste Management System with new contractors	Ventilation Shaft	Discharge of ventilation air	Emission of carbon dioxide and methane	Weekly and Quarterly Diesel testing, 2-hourly monitoring of methane, monthly bag samples, gasguard system, NPI and NGRS recorded monthly and reported annually	1	E	11		Underground Maintenance	Waste generation and disposal	Resource depletion	Underground waste collection system, Waste Management Plan (WMP), Oil Drum Waste Management Procedure	1	E	11	Awareness training of Waste Management System with new contractors	Coal Transport/Storage	Operational Noise	Action from DoP/OEH - non-compliance with approval noise limits	Neighbours not concerned but not willing to sign agreement. Continuous monitoring at Speirs (R2) property. Quarterly attended noise monitoring at all three receptor locations	2	D	12		Site Security	Unlawful public access	Community safety	Main gate, security cameras, signage, security management plan, additional signage and gates, change locks, access doors secured, engagement of security company.	3	D	17	Review security regularly	Noted	
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Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
6.3 Mine Closure Risk Assessment			
6.3	Three risks identified as having potential single fatality and are summarised in Table 6.2.	Noted	
6.3	These identified risks will be re-visited should Baal Bone decide to go into a complete closure phase.	Noted and not triggered	Not Triggered
6.4 Mine Closure - Social Impact Assessment			
6.4	The overarching recommendation of the report was the provision of on-going communication to employees and external stakeholders, including contractors, local businesses and recipients of community contributions to allow maximum notice to be given regarding closure and associated activities.	Noted	
6.4	In the lead up to the cessation of mining at Baal Bone there were regular communications to employees regarding the mine closure. Mine Closure has also been a regular agenda item at Community Consultative Committee meetings, and as such details concerning mine closure were communicated to community stakeholders.	Noted	
6.5 Individual Project Risk Assessments			
6.5	In addition to the broad ranging risk assessments outlined above, other project specific risk assessments are also undertaken periodically to identify activities, processes and facilities that require control strategies to ensure environmental protection and compliance with all lease, licence and/or development consent condition.	Noted	

Reference	Requirement	Evidence	Audit Finding																				
Mining Operations Plan (Feb 2012)																							
7. ENVIRONMENTAL MANAGEMENT CONTROLS																							
7.1 Air Pollution																							
7.1	Monthly dust fall-out monitoring is carried out in accordance with Australian Standard AS3580.10.1 and EPL requirements. Baal Bone has engaged ALS, a NATA Accredited laboratory, to undertake monthly sampling, monitoring and analysis.	Reviewed monitoring reports, compliant with quoted AS and EPL requirements	Compliant																				
7.1	Baal Bone maintains a network of five dust deposition gauges to monitor dust levels around site and in the vicinity of our nearest neighbour, these are: <ul style="list-style-type: none"> • Sample Location DM1 (EPL Monitoring Point No. 7) • Sample Location DM2 (EPL Monitoring Point No. 13) • Sample Location DM3 (EPL Monitoring Point No. 14) • Sample Location DM4 (EPL Monitoring Point No. 15) • Sample Location DM5 (EPL Monitoring Point No. 16) These sites will continue to be monitored within the care and maintenance phase of the mine.	Gauges monitored for deposited dust. Monitoring for PM10 and TSP was discontinued in June 2012.	Compliant																				
7.2 Erosion and Sediment																							
7.2	These areas are managed in accordance with Baal Bone's Biodiversity and Land Management Plan. The Erosion and Sediment Control Plan required under approval 09-0178 is being reviewed prior to submission to DoP. The principal form of management requires stocking densities of agisted livestock to be controlled thereby ensuring a satisfactory level of ground cover.	Biodiversity and Land Management Plan was reviewed by auditors and includes management of stocking densities. Land Access Agreements were also reviewed by the auditors	Compliant																				
7.2 Surface Water Pollution (*there are two 7.2 sections)																							
7.2	Baal Bone has engaged ALS, a NATA Accredited laboratory, to undertake monthly sampling, monitoring and analysis of a range of surface and subsurface waters.	Noted																					
7.2	<p>Table 7.1. Baal Bone Colliery Water Monitoring Locations and Monthly Analysis</p> <p><i>NB: Monitoring points highlighted in yellow indicate Licenced Discharge and Monitoring Points.</i></p> <table border="1"> <thead> <tr> <th>Sample Name</th> <th>Sample Location</th> <th>Frequency</th> <th>Pollutants Analysed</th> <th>EPL Limits Apply</th> </tr> </thead> <tbody> <tr> <td>BBLD2</td> <td>EPL Monitoring Pt No.2. In sump at discharge from STP maturation pond to transpiration bed area</td> <td>Monthly during discharge</td> <td>Oil & grease, TSS, pH, BOD, faecal coliforms, nitrogen, phosphorus</td> <td>Not specified</td> </tr> <tr> <td>BBLD3</td> <td>EPL Monitoring Pt No. 3. In stilling pond at pipe outlet of south mine dewatering bores</td> <td>Monthly during discharge</td> <td>EC, oil & grease, sulphate, iron, TSS, pH, MBAS, Pseudomonas, flow rate</td> <td>Oil & grease, pH, TSS</td> </tr> <tr> <td>BBLD6</td> <td>EPL Monitoring Pt No. 6. In stilling pond at pipe outlet of</td> <td>Monthly during</td> <td>EC, oil & grease, sulphate, iron, TSS, pH, MBAS,</td> <td>Oil & grease, pH, total iron, TSS and daily</td> </tr> </tbody> </table>	Sample Name	Sample Location	Frequency	Pollutants Analysed	EPL Limits Apply	BBLD2	EPL Monitoring Pt No.2. In sump at discharge from STP maturation pond to transpiration bed area	Monthly during discharge	Oil & grease, TSS, pH, BOD, faecal coliforms, nitrogen, phosphorus	Not specified	BBLD3	EPL Monitoring Pt No. 3. In stilling pond at pipe outlet of south mine dewatering bores	Monthly during discharge	EC, oil & grease, sulphate, iron, TSS, pH, MBAS, Pseudomonas, flow rate	Oil & grease, pH, TSS	BBLD6	EPL Monitoring Pt No. 6. In stilling pond at pipe outlet of	Monthly during	EC, oil & grease, sulphate, iron, TSS, pH, MBAS,	Oil & grease, pH, total iron, TSS and daily	Revised in MOP, 2013	Compliant
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Reference	Requirement					Evidence	Audit Finding
Mining Operations Plan (Feb 2012)							
		north mine dewatering bore	discharge	Pseudomonas, flow rate	volume limit		
	BBLDP1	EPL Monitoring Pt No.11 Immediately below the pipe outlet or in stilling pool below spillway of overshoot dam	Monthly during discharge	EC, oil & grease, sulphate, iron, TSS, pH, flow rate, hardness, MBAS, nitrogen, phosphorus	Oil & grease, pH, total iron, TSS	Revised in MOP, 2013	Compliant
	BBWMP1	EPL Monitoring Pt No. 12 Pool within Ben Bullen creek upstream of active surface mining area	Monthly (during flow)	EC, oil & grease, sulphate, iron, TSS, pH, flow rate, hardness, nitrogen, phosphorus	Not specified		
	BBPOT	Potable water from main kitchen in Administration	Monthly	pH, EC, Hardness, heterotrophic standard plate count, total coliforms, E coli, Pseudomonas	N/A		
	BBCHPP MEAL ROOM	Potable water from kitchen in Washery.	Monthly	pH, EC, Hardness, heterotrophic standard plate count, total coliforms, E coli, Pseudomonas	N/A	Revised in MOP, 2013	Compliant
	BBLR	Leachate pond on western side of REA 5	Monthly	EC, oil & grease, sulphate, iron, TSS, pH, flow rate, hardness	N/A		
	BBREAS	Spring on Ben Bullen Creek	Monthly (during flow)	EC, iron, oil & grease, pH, sulphate, hardness, nitrogen, phosphorous, and TSS			
	BBMW No.5	Mine water discharge pipeline adjacent to No. 5 Adit	Monthly (only if discharging)	Flow rate, pH, EC, TSS, iron, sulphates, oil & grease, MBAS, heterotrophic standard plate count, faecal coliforms, pseudomonas	N/A		
	BBMW No.3	Mine water discharge pipeline adjacent to No. 3 Adit	Monthly (only if discharging)	Flow rate, pH, EC, TSS, iron, sulphates, oil & grease, MBAS, heterotrophic standard plate count, faecal coliforms, pseudomonas	N/A	Revised in MOP, 2013	Compliant
	BBPit 1	Pit-top grit trap/oil separator (eastern)	Monthly (only if discharging)	pH, oil & grease, MBAS	N/A		
	BBPit 2	Pit-top grit trap/oil separator (western)	Monthly (only if discharging)	pH, oil & grease, MBAS	N/A		

Reference	Requirement					Evidence	Audit Finding
Mining Operations Plan (Feb 2012)							
	BBPit 3	Washery grit trap/oil separator	Monthly (only if discharging)	pH, oil & grease, MBAS	N/A	Revised in MOP, 2013	Compliant
	BBDW	Dirty water dam	Monthly	EC, Iron, oil & grease, pH, Sulphate, TSS, Hardness, MBAS	N/A		
	BBDWD	Dirty water dam discharge	Monthly (only if discharging)	EC, Iron, oil & grease, pH, Sulphate, TSS, Hardness, MBAS	N/A		
	BBPRW	Process water dam	Monthly	EC, Iron, oil & grease, pH, Sulphate, TSS, Hardness, MBAS, heterotrophic standard plate count, pseudomonas	N/A	Revised in MOP, 2013	Compliant
	BBPRWD	Process water dam discharge	Monthly (only if discharging)	EC, Iron, oil & grease, pH, Sulphate, TSS, Hardness, MBAS, pseudomonas	N/A		
	BBSTP1	STP Maturation Pond No 1	Monthly	pH, BOD, Faecal coliforms, nitrogen, phosphorus	N/A		
	BBSTP2	STP Maturation Pond No 2	Monthly	pH, BOD, Faecal coliforms, nitrogen, phosphorus	N/A		
	BBBC	Box cut sump	Monthly	pH, EC, iron, sulphates	N/A	Revised in MOP, 2013	Compliant
	BBBCC Mid	Ben Bullen Creek mid-way through site	Monthly (during flow)	Flow rate, pH, EC, TSS, iron, sulphates, hardness, oil & grease, nitrogen, phosphorus	N/A		
	BBBCC End	Ben Bullen Creek upstream of the Overshot Dam	Monthly	pH, EC, TSS, iron, sulphates, hardness, oil & grease, nitrogen, phosphorus	N/A		
	BBLT	'Lake Tegan'	Monthly	EC, iron, oil & grease, pH, sulphate, hardness, nitrogen, phosphorous, and TSS	N/A		

Reference	Requirement	Evidence	Audit Finding																									
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	Note: BOD = Biochemical Oxygen Demand MBAS = Methylene Blue Active Substances COD = Chemical Oxygen Demand TSS = Total Suspended Solids EC = Electrical Conductivity	Noted																										
	All licenced discharge points and internal monitoring points will be monitored during the care and maintenance phase of the mine.	Noted - see AEMR and EPL Annual Return	Compliant																									
7.3 Ground Water Pollution																												
7.3	Baal Bone Colliery currently has three mine dewatering bores, two groundwater supply bores and four shallow piezometer monitoring bores licenced with NSW Office of Water; these are summarised in Table 7.2.	Refer to Revised MOP	Compliant																									
	Water quality in all except two of these bores are monitored by ALS on a monthly basis in conjunction with the surface water monitoring program as described above in Section 7.3.	Refer to Revised MOP	Compliant																									
	The two groundwater supply bores 80BK136703 and 80BL135509 are not currently used and samples are therefore not available for testing.	Refer to Revised MOP	Compliant																									
7.3	The six groundwater monitoring piezometers were installed in 2007 to gather background quantity and quality data, and to monitor subsidence effects on local groundwater regimes as part of the SMP for LW 29-31. These six LW 29-31 piezometers will be monitored for at least a year during the care and maintenance period, after which a report will be prepared detailing whether there have been any long term impacts to the swamp from longwall mining. If the report determines that further data is required to make an assessment, then monitoring will continue until a time in which the dataset is sufficient to make this assessment. If the report determines that there have been no long-term effects to the swamp, Baal Bone will submit an application to DTIDRE to discontinue these monitoring bores.	Refer to Revised MOP	Compliant																									

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
	The other bores will continue to be monitored during the care and maintenance phase as required by EPL 765.	Refer to Revised MOP	Compliant
7.4 Contaminated Polluted Land			
7.4	Domestic waste from the administration centre and store are collected daily by cleaning contractors and stored in covered waste collection skip bins for periodic removal by industrial waste removalists. Baal Bone has an agreement with a licenced recycler to regularly remove empty drums, waste oil, filters and oily rags from the site.	Noted	Compliant
7.4	The pit-top oil storage shed is fully bunded to contain any accidental spills; drums stored in and around the workshops, store and CHPP facility are kept on bunded pallets. Hydrocarbon spill kits are located at numerous locations around the site and these are inspected and replenished on a monthly basis. Spill kit refresher training is conducted annually.	Noted	Compliant
7.5 Threatened Flora			
7.5	Potential habitat for both <i>E. cannonii</i> and <i>P. marginata</i> are isolated to areas north of the current lease area and they have not been affected by mining activities on site. Baal Bone has developed a Biodiversity and Land Management Plan to ensure that site operations (in particular vegetation clearing and ground disturbing activities) do not potentially impact on these species. This Plan was reviewed and updated in Q4 2011.	Noted	Compliant
7.6 Threatened Fauna			
7.6	Biodiversity Monitoring Services (previously known as Mount King Ecological Surveys) (Martin Denny) has continued with routine seasonal baseline surveys of the Baal Bone area.	Noted	Compliant
7.7 Weeds			
7.7	A structured weed eradication campaign is undertaken annually in accordance with the requirements of the Biodiversity and Land Management Plan.	3.2.2 outlines the weed eradication program for the site however only Blackberry, Bidy Bush and Serrated Tussock were targeted during the audit period. The auditors noted Paterson's Curse was present on site.	Compliant
7.7	A full land management review of the Baal Bone site by appropriately qualified personnel has also been carried out annually since 2008.	Undertaken by Eco Logical in 2012 and DnA Environmental in 2013	Compliant
7.7	A comprehensive weed spraying program was completed during March 2008 and again in November 2008. These programs targeted Blackberry, St John's Wort and Bidy Bush (<i>Cassinia arcuata</i>). Spraying was conducted in March 2011, December 2011 and March 2012 targeting the same weeds.	A comprehensive weed spraying program targeting Blackberry, Bidy Bush (<i>Cassinia arcuata</i>) and isolated populations of Serrated Tussock (<i>Nassella trichotoma</i>) was undertaken in January and March 2012. Further blackberry spraying was undertaken in December 2012 and January 2013 (2012 AEMR). Next scheduled work planned for January 2014.	Compliant

Reference	Requirement	Evidence	Audit Finding																																	
Mining Operations Plan (Feb 2012)																																				
7.7	Ongoing maintenance spraying will continue throughout the suspended operations MOP period.	The site have been using their own internal personnel to carry out weed eradication in the past few years and have a blackberry spraying program planned with internal (chemcert qualified) personnel for blackberries in the 2014 in particular along the creek line and around the dams (ECO). Noted by the auditors	Compliant																																	
7.8 Blasting																																				
7.8	There has been no blasting at Baal Bone since the cessation of open cut mining in July 2007. No blasting is expected to take place during the MOP period.	Noted																																		
7.9 Operational noise																																				
7.9	Baal Bone has developed a Noise monitoring Program in consultation with a specialist noise consultant to minimise the risk of an impact on the local community from mine related noise. The noise monitoring program will continue throughout the MOP period.	Noise monitoring has continued to date with the annual survey for 2013 completed in Nov 2013	Compliant																																	
7.9	<p>Table 7.4: Noise Monitoring Requirements</p> <table border="1"> <thead> <tr> <th>Monitoring Program</th> <th>Conditions</th> <th>Sites</th> <th>Parameters Monitored</th> <th>Units of Measure</th> <th>Monitoring Frequency</th> <th>Responsibility</th> <th>Reporting</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Noise Monitoring</td> <td rowspan="2">Part 3A Development Consent Schedule 3, Condition 4, 5, 6, 7.</td> <td>R1 - Muldoon Residence</td> <td rowspan="2">All Periods</td> <td rowspan="2">L_{Aeq} (15 min)</td> <td rowspan="2">7 days Quarterly</td> <td rowspan="2">Environmental Coordinator (EC) / Monitoring Contractor (MC)</td> <td rowspan="2">Internal Quarterly, AEMR</td> </tr> <tr> <td>R2 - Speirs Residence</td> </tr> <tr> <td></td> <td></td> <td>R3 - Desche Residence</td> <td>Night</td> <td>L_{A1} (1 min)</td> <td>7 days Quarterly</td> <td>EC/MC</td> <td>Internal Quarterly, AEMR</td> </tr> <tr> <td></td> <td>EPL 2009 – Section 6, Noise Limit Conditions</td> <td>South East Ventilation Shaft</td> <td colspan="5">Compliance noise measurements undertaken by <i>Atkins Acoustic (May 2008)</i> reported that operational noise from the ventilation installation assessed at residential receptor R4 was not audible, less than 20dBA and satisfied the Consent noise criteria.</td> </tr> </tbody> </table>	Monitoring Program	Conditions	Sites	Parameters Monitored	Units of Measure	Monitoring Frequency	Responsibility	Reporting	Noise Monitoring	Part 3A Development Consent Schedule 3, Condition 4, 5, 6, 7.	R1 - Muldoon Residence	All Periods	L _{Aeq} (15 min)	7 days Quarterly	Environmental Coordinator (EC) / Monitoring Contractor (MC)	Internal Quarterly, AEMR	R2 - Speirs Residence			R3 - Desche Residence	Night	L _{A1} (1 min)	7 days Quarterly	EC/MC	Internal Quarterly, AEMR		EPL 2009 – Section 6, Noise Limit Conditions	South East Ventilation Shaft	Compliance noise measurements undertaken by <i>Atkins Acoustic (May 2008)</i> reported that operational noise from the ventilation installation assessed at residential receptor R4 was not audible, less than 20dBA and satisfied the Consent noise criteria.					Atkins Acoustics noise compliance reports were reviewed by the auditors. At the end of 2012, attended noise monitoring was only required on an annual basis and was undertaken in 2013 by Atkins Acoustics.	Compliant
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7.10 Visual, Stray Light																																				
7.10	All lighting associated with the CHPP and the UC1 conveyor/ROM stockpile has been designed and constructed so as to minimise glare and stray light. No complaints have been received in this respect. A lighting survey was completed in November 2011 and all lighting was found to be within AS 4282-1997	No complaints have been received regarding stray light to date.	Compliant																																	
7.11 Aboriginal Heritage																																				
7.11	A draft AHMP was prepared and circulated to all participants for review and comment in November 2008. No submissions were received from the groups and the final report was submitted to OEH in December. Implementation of the Plan has commenced with the inclusion of the site in the LW29-31 Subsidence Monitoring Program. An updated version of the ACMP was undertaken on the 7th July 2011 to account for new conditions required under the new Part 3A development consent received by Baal Bone on the 14th January 2011.	Noted	Compliant																																	

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
7.13 Spontaneous Combustion			
7.13	The Company has developed a Spontaneous Combustion TARP for the ROM stockpile. The plan principally involves regulating the duration of ROM storage on the stockpile and management actions monitoring by internal stockpile temperatures.	ROM stockpiles were transported off site in April 2012.	Not triggered
7.13	Following an incident in 2003, no coal will be left on the ROM stockpile for longer than the incubation period (typically 18 months).	ROM stockpiles were transported off site in April 2012.	Not triggered
7.14 Bushfire			
7.14	In the event of a bushfire within the adjacent State Forest, Forests NSW would assume responsibility for all fire fighting and emergency response activities. An agreement was reached between Forests NSW and Baal Bone regarding use of the Colliery's helipad, first aid room and process water dam in emergency situations.	No bushfires occurred in 2012 according to the AEMR. Noted	Compliant
7.14	In the event that a bushfire is ignited on company owned land or where bushfire poses a threat to the mining operations, the Baal Bone's Emergency Response Procedure will be activated.	No bushfires occurred in 2012 according to the AEMR.	Compliant
7.14	In addition, site management will ensure that:		Compliant
	• all boundary roads around the land within the Colliery freehold land are maintained in a condition suitable for use as fire breaks and access tracks during an emergency situation;	Noted	Compliant
	• a water cart at the Washery can assist in fire fighting activities;	Removed in the 2013 revision of the MOP	Compliant
	• main access road and helipad are maintained suitable for use by emergency services;	Noted	Compliant
	• dams, voids and any other areas that may be utilised as watering points can be accessed by fire fighting equipment;	Noted	Compliant
	• portable radios are used at the time of emergency solely by the emergency response team who are trained and are provided with protective clothing;	Noted	Compliant
	• site earthmoving equipment can be utilised; and	Noted	Compliant
7.14	Vegetation height beneath powerlines is also a component of the land management review which is conducted annually in response to the requirements of the Biodiversity and Land Management Plan.	2012 Land Management Inspection (Eco Logical) assessed this but 2013 Inspection by DnA Environmental did not.	Non-compliant
7.17 Methane/Drainage Ventilation			
7.17	Monthly gas bag samples from the underground ventilation system are analysed by Coal Mines Technical Services, a NATA accredited company on a monthly basis.	Monthly gas bag samples were conducted by CMTS in 2012 (AEMR). Results show extremely low levels of methane at Baal Bone (<0.01%).	Compliant
7.17	Gas bag samples will continue to be taken during the care and maintenance period.	Noted	

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (Feb 2012)			
7.18 Public Safety			
7.18	Fences are in place around the mining lease area, with all other boundary gates locked and maintained in safe working order. All access points onto the mine area are signposted to warn the public of Baal Bone Colliery's mining operations and of the risks involved.	Noted	Compliant
7.18	Warning signs have also been erected along public tracks in the Ben Bullen State Forest warning of mine subsidence and prohibiting entry to unauthorised persons. Areas of mine subsidence are routinely inspected, with repairs and/or remediation works for public safety being completed as a matter of priority.	Noted and sighted during the site inspection	Compliant
7.18	There is also a number a new safety measures which have been adopted on site to ensure employee and public safety throughout all aspects of operation at Baal Bone. These mainly relate to the security measures, which are detailed in Section 2.11	Noted	Compliant
7.19 Traffic Management			
7.19	Baal Bone holds a Development Consent (DA 09-0178) that permits road transport of coal to the Wallerawang and Mount Piper Power Stations. As a condition of this consent, Baal Bone has prepared a Road Haulage Management Plan which details the requirements for road haulage of coal from Baal Bone although no road haulage is planned during the period of this MOP. The Road Haulage Management Plan was resubmitted to DoP on 9th February 2012.	Noted	Not triggered
7.19	This Plan is reviewed periodically; and traffic management issues are also discussed at the meetings of Baal Bone's Community Consultative Committee.	Noted	Not triggered

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (revised Oct 2013)			
1. INTRODUCTION			
1.8 Consultation			
1.8	Approval of the Suspension of Mining Operations MOP was granted from DTI on 18th June 2012. A revision of the MOP was requested from DTI in February 2013 to accommodate changes to mine de-watering management and incorporation of information from the Baal Bone draft Mine Closure Plan.	Noted	
2. PRE MOP ENVIRONMENT			
2.1 Existing Environment			
2.1	During 2012 and 2013 discussions were held between Baal Bone, the EPA and DTI in regards to the discontinuation of mine water discharges from the north and south de-watering bores (Licence discharge points 3 and 6) into the Temperate Peat Swamp of Baal Bone Creek. An agreement was reached by the site and the EPA that water from the boreholes would be piped back to the water management system at the pit top and discharge through LDP1. Concerns were raised by DTI about the impact the sudden cessation of water into the Baal Bone Creek swamp would have. Advice was sought from the Office of Environment and Heritage – Biodiversity Conservation Unit, which recommended that decommissioning of both LDP3 and LDP6 occur as soon as possible. Existing sections of steel pipeline were recommissioned and supplemented with additional poly-pipe and both LDP3 and LDP6 were relinquished on the 31st of July 2013.	Noted	
2.1	Water from both the north and south boreholes now follows a total length of 7 kilometres of pipeline back to the pit top's 'Dirty Water' management system. After retention in the dirty water dam, the water is then pumped to the process water dam, overflows onto Ben Bullen Creek and then leaves site through LDP1 at the overshot dam. Alternatively a percentage of this water can also be pumped to Lake Tegan and after retention time, over flow to the overshot dam.	Noted	
2.1	The south east ventilation fan was removed in May 2013 and the shaft filled. Site levelling, fence removal and topsoil replacement was completed in June 2013.	Noted	
2.6 Hydrology			
2.6	Although all underground mining operations have been completed, Baal Bone will continue to pump water from the North (above Longwall 19) and South (Longwall 1) Goaf Water storage areas throughout the suspended operations period as part of the underground infrastructure maintenance. This water is being pumped out of the East Great Dividing Range catchment area into the West Great Dividing Range catchment area.	Noted	
2.8 Waste Management and Recycling			
2.8.1	With the completion of mining at Baal Bone and the reduced number of employees on site, the discharge of LDP2 has been greatly reduced, with no discharge occurring since September 2012.	Noted	

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (revised Oct 2013)			
2.11 Site Security			
	<p>A number of safety measures have been adopted on site to ensure employee and public safety throughout all aspects of operations at Baal Bone. These security measures include:</p> <ul style="list-style-type: none"> • Licensed security contractor with regular patrols during hours of non-operation; • Automated gates at the entrance to site which are closed out of business hours; • Change of security locks; • CCTV surveillance of key areas of site; • Lockable gates across all portals; • Perimeter Fencing; and • Compulsory surface and underground inductions for those working on site. <p>All visitors must be signed in and out and must be accompanied around the site by authorised personnel.</p>	Sighted during site inspection	Compliant
3. PROPOSED MINING ACTIVITIES			
3.5 Activities during Suspension of Mining			
3.5.2	<p>Baal Bone is proposing to continue operation of the pit top (1 adit) ventilation fan throughout suspended operations. The box cut fan (North) has been switched off and it is not anticipated to operate again during the suspended operations period, but may be activated if necessary. The South East ventilation fan was removed and the shaft filled in May 2013 after access to Longwall blocks 29-31 was no longer required. Detailed sealing designs were developed and approved by DTI – Mine Safety and the district inspector visited the site as capping of the shaft was carried out.</p>	Noted	
3.5.4	<p>During Care and Maintenance, Baal Bone Colliery has been utilised as training and education facility for new Glencore Xstrata employees as well as a location for periodic training for the western Mines Rescue Service.</p>	Noted	
	<p>Additional to the periodic use of the site for training, the management of Glencore Xstrata's NSW general inductions has been managed out of Baal Bone, with trainers in the Hunter Valley and western/southern coal fields reporting to the Baal Bone Operations Manager. Administration personnel at site manage the induction bookings and the processing of completed inductions.</p>	Noted	
	<p>No coal cutting operations have been carried out as part of the site training program.</p>	Noted	
3.6 CHPP Suspension Strategy			
3.6	<p>The mothballing strategy that has been adopted provides a safe and cost effective method of preserving the current CHPP in the event that mining operations are re-commenced at Baal Bone.</p>	Noted	

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (revised Oct 2013)			
3.6	After the suspension of activities at the CHPP, the following activities around the CHPP were carried out: <ul style="list-style-type: none"> • Coal stockpile area cleared; • CHPP secured; • Electricity supply maintained; • Sediment traps maintained; • Reclaim tunnels and other infrastructure man proofed. 	Observed on Site	Compliant
3.7 Waste Management Strategy			
3.7.4	A Banlaw fuel management system was installed at the existing main diesel refuelling station in 1997 for the purpose of servicing the Baal Bone underground operations. Dry break fittings and emergency breakaway couplings have been fitted to minimise diesel spillage. Integrity testing of the underground diesel tank is carried out annually at site. Regular groundwater monitoring for hydrocarbons is carried out across the pit top and CHPP area in line with Glencore Xstrata standards.	Noted and discussed with ECO	Compliant
3.12 Water Management			
3.12.2	Although all underground mining operations have been completed, Baal Bone will continue to pump water from the North (above Longwall 19) and South (Longwall 1) Goaf Water storage areas throughout the suspended operations period as part of the underground infrastructure maintenance. This water is being pumped out of the East Great Dividing Range catchment area into the West Great Dividing Range catchment area.	Noted	
	During 2012 and 2013 discussions were held between Baal Bone, the EPA and DTI in regards to the discontinuation of mine water discharges from the north and south de-watering bores (Licence discharge points 3 and 6) into the Temperate Peat Swamp of Baal Bone Creek. An agreement was reached by the site and the EPA that water from the boreholes would be piped back to the water management system at the pit top and discharge through LDP1. Concerns were raised by DTI about the impact the sudden cessation of water into the Baal Bone Creek swamp would have. Advice was sought from the Office of Environment and Heritage – Biodiversity Conservation Unit, which recommended that decommissioning of both LDP3 and LDP6 occur as soon as possible. Existing sections of steel pipeline were recommissioned and supplemented with additional poly-pipe and both LDP3 and LDP6 were relinquished on the 31st of August 2013.	Noted during site visit	Compliant
	Water from both the north and south boreholes now follows a total length of 7 kilometres of pipeline back to the pit top's 'Dirty Water' management system. After retention in the dirty water dam, the water is then pumped to the process water dam, overflows onto Ben Bullen Creek and then leaves site through LDP1 at the overshoot dam. Alternatively a percentage of this water can also be pumped to Lake Tegan and after retention time, over flow to the overshoot dam. An over view of the current water management system can be seen in Plan 1B and locations of the north and south de-watering bores and pipeline in Plan 8.	Noted during site visit	Compliant

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (revised Oct 2013)			
3.12.4	With the completion of mining at Baal Bone and the reduced number of employees on site, the discharge of LDP2 has been greatly reduced, with no discharge occurring since September 2012.	Noted during site visit, sighted in AEMR	Compliant
3.12.5	Potable water usage during the 2012/2013 period after the cessation of mining was 8.64ML, compared to 20.928 ML during operation in 2011.	Noted	
3.12.6	There is currently one surface entitlement water Licence held by the site (Licence No 80SL046064). This licence entitles the site to a volume use of 25ML per annum for mining use from the Overshot dam. No water was pumped from the overshot dam in the lead up to the mine entering care and maintenance and it is not foreseeable that this water will be required whilst on care and maintenance.	Noted, checked with Water Licences	
	A further three licensed bores (Licence Nos 80BL236132, 80BL236134 and 80BL239077) are used as mine dewatering bores LW1-South Bore 1, LW1-South Bore 2 and LW19-North Bore respectively. In the Care and Maintenance phase of the mine, dewatering bores will be maintained. The water quality from the bores was monitored monthly whilst water discharged through Licence discharge points LDP3 and LDP6. Since the relinquishment of these licence discharges points, mine water reports to the pit top water management system at either the dirty water dam or Lake Tegan. Both the dirty water dam and Lake Tegan are sampled and analysed on a monthly basis.	Noted, checked with Water Licences	
3.14 Other Infrastructure			
3.14	All mine related unsealed roads, monitoring sites and dewatering bore compounds on Forests NSW land will be maintained during the care and maintenance phase of the mine.	Noted and observed during site inspection	Compliant
4. PROPOSED REHABILITATION ACTIVITIES DURING THE MOP TERM			
4.2 Rehabilitation Status at MOP Commencement			
4.2.2	The south east ventilation fan was removed in May 2013 and the compound cleared, levelled and mulched. The power line corridor that supplied the ventilation fan was also removed. Once vegetation has re-established on these sites to the adequacy to Forests NSW, the occupation permits on these sites will be relinquished.	Noted and observed on site	Not Triggered
4.2.2	Following the shaft in-filling, remediation works were carried out on identified subsidence cracking areas over longwalls 29-31. Remediation was carried out whilst managing as little impact to the surrounding environment as possible. The remediation sites will be monitored with a post rehabilitation review and report to be developed within this MOP period.	Reviewed on site	Not Triggered
4.2.4.1	In total there were six "woodland" sites and two "exotic pasture" rehabilitation monitoring sites established in 2009. Annually the monitoring methodology encompasses a combination of Landscape Function Analyses (LFA), Vegetation structure and composition analyses and permanent photo-points. Every second year a more extensive program is carried out to gauge rehabilitation progress, using a combination of LFA, comprehensive soil analyses and an assessment of ecosystem characteristics.	2012 and 2013 annual Rehabilitation Monitoring (DnA Environmental) use LFA, vegetation structure and composition analyses and permanent photopoints.	Compliant

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (revised Oct 2013)			
4.2.6	Department Primary Industries – NSW Fisheries. Implementation of works in Sections 1 and 3 of Ben Bullen Creek commenced in late 2007 and have been completed. Section 2 passes through the existing pit-top area and options on remediating the current diversion verses restoring the creek to its historic flow path are being considered. If remediating the current diversion is found to be the best ecological and economic option, further discussions will be held with relevant stakeholders and works progressed to modifying the current project approval may occur during this MOP period.	Noted	Not Triggered
	Under the Part 3A development consent received in January 2011, Baal Bone was required to review its water management systems which included a review of the Ben Bullen Creek Natural Channel Design and Restoration Plan. An interim Water Management Plan has been submitted to the relevant Departments. The development of the Ben Bullen Creek Management Plan is currently progressing and will be completed over the current MOP period.	Noted	
4.2.10	Options on the remediation of the middle reaches of Ben Bullen Creek (through the pit top area) are being considered. The options include remediating the current diversion verses restoring the creek to its historic flow path. If remediating the current diversion is found to be the best ecological and economic option, further discussions will be held with relevant stakeholders and works progressed to modifying the current project approval may occur during this MOP period.	Noted	
5. FINAL REHABILITATION AND MINE CLOSURE			
5.1 Rehabilitated Areas and Features			
5.1.1	The results of the 2013 rehabilitation monitoring are also attached in Appendix 4 to demonstrate the sites performance towards meeting the current completion criteria.	Noted, assessed by DRE	
5.1.3	Details are available in the Baal Bone, Biodiversity and Land Management Plan. Completion criteria and rehabilitation monitoring is located in Appendix 4.	Noted	
5.1.3	A weed control program has been implemented during the rehabilitation care and maintenance phase. This involves regular checks for weeds and feral animals, with implementation of control programs where necessary.	Noted	

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (revised Oct 2013)			
5.2.3	The Domain 3 area includes: <ul style="list-style-type: none"> • CHPP including crushing and breaking plant, the washery plant, and the associated coal conveyors; • Sewage treatment plant; • Two coal stockpile areas; • The rail loop -is a 7km long spur line from the Wallerawang-Gwabegar line, terminating at a 200m radius balloon rail loop. The loop is equipped with signalling systems and 1,000 t loading bin; • Access Road; • North and South de-watering bore compounds, and other associated infrastructure (pipeline and powerlines); • Groundwater water monitoring boreholes (piezometers); • Previous LW29-LW31 ventilation shaft compound in the State Forest; 	Noted	
5.2.3.1	Sealing of the dewatering boreholes and groundwater monitoring boreholes will be completed in line with the DTI borehole sealing requirements. The dewatering borehole compounds will be rehabilitated, after the removal of infrastructure including, the control room huts, aeration ponds and pipe work. The site will be levelled, top treated and seeded and/or brush matted and the security fencing removed. Water pipelines from the compounds to the pit top area will be removed and disposed of appropriately. The power supply to the de-watering bore sites will be disconnected. After the supply disconnection, the powerlines and power poles will be removed and the power line corridors rehabilitated.	Noted	Not Triggered
5.2.3.1	The south east ventilation fan was removed in May 2013 and the shaft filled. Site levelling, fence removal and topsoil replacement was completed in June 2013. Also during May 2013, the powerline utilised to supply the ventilation fan was removed and the poles and cable were dismantled and returned to the pit top.	Noted	
5.2.6	A geotechnical investigation completed in December 2011 determined that REA 5 Cell 1 was ready to cap, while Cell 2 required further drying before works could commence on it. On 1 March 2012, Baal Bone received approval from the Department of Trade and Investment to discontinue use of REA 5 and capping of REA 5 Cell 1 was completed in April 2012. Capping of REA 5 cell 2 is anticipated to be carried out during the current MOP period.	Noted	Not Triggered
5.2.7	Following the identification of cracking over longwall panels 29-31, a Review of Environmental Factors was developed and approved by DTI in 2012. Work to remediate identified cracks was carried out in June 2013. A six month post rehabilitation review will be carried out within this MOP period and any additional issues rectified.	Noted	Not Triggered
5.2.7	Infrastructure occurring across the Domain 7 area is the dewatering boreholes, groundwater monitoring boreholes and the south east ventilation fan with associated powerlines and access roadways. This infrastructure has been covered within in 'Domain 3 – Infrastructure'.	Noted	

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (revised Oct 2013)			
5.2.7	The south east ventilation fan was removed in May 2013 and the shaft filled. Site levelling, fence removal and topsoil replacement was completed in June 2013. Also during May 2013, the powerline utilised to supply the ventilation fan was removed and the poles and cable were dismantled and returned to the pit top.	Noted	
5.2.7	Sealing of the dewatering boreholes and groundwater monitoring boreholes will be completed in line with the DTI borehole sealing requirements. The dewatering borehole compounds will be rehabilitated, after the removal of infrastructure including, the control room huts, aeration ponds and pipe work. The site will be levelled, top treated and seeded and/or brush matted and the security fencing removed. Water pipelines from the compounds to the pit top area will be removed and disposed of appropriately.	Noted	Not Triggered
5.2.7	The power supply to the de-watering bore sites will be disconnected. After the supply disconnection, the powerlines and power poles will be removed and the power line corridors rehabilitated.	Noted	Not Triggered
6. ENVIRONMENTAL AND REHABILITATION RISK AND IMPACT IDENTIFICATION			
6.1 Broad Brush Risk Assessment			
6.1	SP Solutions Pty Limited conducted a pre-closure Broad Brush Risk Assessment (BBRA) review at Baal Bone, in December 2010. Being a Broad Brush Risk Assessment this review tends to focus on high level health, safety, environmental and community issues which have the potential to present a catastrophic level of risk.	Noted	
6.1	The only major environmental issue appearing on the 2010 BBRA Risk Register related to the potential for mining related damage to the Wolgan Escarpment. This risk was managed through the Subsidence Management Plan, and more specifically the Wolgan Escarpment Management Plan which was been prepared as a condition of the SMP approval. Results from the monitoring carried out as part of the Wolgan Escarpment Management Plan were no identifiable impacts occurred to the escarpment or related Wolgan Trig station.	Noted	
6.2 Environment and Community Risk Assessment			
6.2	These risks are therefore considered inherent and must be actively monitored and managed to avoid the impacts from occurring.	Noted	

Reference	Requirement	Evidence	Audit Finding																				
Mining Operations Plan (revised Oct 2013)																							
7. ENVIRONMENTAL MANAGEMENT CONTROLS																							
7.2 Erosion and Sediment																							
7.2	<p>These areas are managed in accordance with Baal Bone's Biodiversity and Land Management Plan. The Erosion and Sediment Control Plan required under approval 09-0178 forms part of the site's overall Water Management Plan. The objective of the Erosion and Sediment Control Plan is to ensure that appropriate procedures and programs of work are in place to:</p> <ul style="list-style-type: none"> • identify activities that could cause soil erosion and generate sediment; • describe the location, function and capacity of erosion and sediment control structures required to minimise soil erosion and the potential for transport of sediment downstream; • ensure erosion and sediment control structures are appropriately maintained; • fulfil the statutory conditions of the Erosion and Sediment Control Plan; and • meet the requirements of Managing Urban Stormwater: Soils and Construction (the Blue Book), Volume 1, Volume 2A Installation of services, Volume 2C Unsealed Roads, Volume 2D Main Road Construction and Volume 2E - Mines and Quarries (Landcom, 2004 and DECC 	See Soil and Erosion Plan (Part of Water Mngt Plan)	Compliant																				
7.2 Surface Water Pollution (*there are two 7.2 sections)																							
7.2	<p>Table 7.1. Baal Bone Colliery Water Monitoring Locations and Monthly Analysis</p> <p><i>NB: Monitoring points highlighted in yellow indicate Licenced Discharge and Monitoring Points.</i></p> <table border="1"> <thead> <tr> <th>Sample Name</th> <th>Sample Location</th> <th>Frequency</th> <th>Pollutants Analysed</th> <th>EPL Limits Apply</th> </tr> </thead> <tbody> <tr> <td>BBLD2</td> <td>EPL Monitoring Pt No.2. In sump at discharge from STP maturation pond to transpiration bed area</td> <td>Monthly during discharge</td> <td>Oil & grease, TSS, pH, BOD, faecal coliforms, nitrogen, phosphorus</td> <td>Not specified</td> </tr> <tr> <td>BBLDP1</td> <td>EPL Monitoring Pt No.11 Immediately below the pipe outlet or in stilling pool below spillway of overshoot dam</td> <td>Monthly during discharge</td> <td>EC, oil & grease, sulphate, iron, TSS, pH, flow rate, hardness, MBAS, nitrogen, phosphorus</td> <td>Oil & grease, pH, total iron, TSS</td> </tr> <tr> <td>BBWMP1</td> <td>EPL Monitoring Pt No. 12 Pool within Ben Bullen creek upstream of active surface mining area</td> <td>Monthly (during flow)</td> <td>EC, oil & grease, sulphate, iron, TSS, pH, flow rate, hardness, nitrogen, phosphorus</td> <td>Not specified</td> </tr> </tbody> </table>	Sample Name	Sample Location	Frequency	Pollutants Analysed	EPL Limits Apply	BBLD2	EPL Monitoring Pt No.2. In sump at discharge from STP maturation pond to transpiration bed area	Monthly during discharge	Oil & grease, TSS, pH, BOD, faecal coliforms, nitrogen, phosphorus	Not specified	BBLDP1	EPL Monitoring Pt No.11 Immediately below the pipe outlet or in stilling pool below spillway of overshoot dam	Monthly during discharge	EC, oil & grease, sulphate, iron, TSS, pH, flow rate, hardness, MBAS, nitrogen, phosphorus	Oil & grease, pH, total iron, TSS	BBWMP1	EPL Monitoring Pt No. 12 Pool within Ben Bullen creek upstream of active surface mining area	Monthly (during flow)	EC, oil & grease, sulphate, iron, TSS, pH, flow rate, hardness, nitrogen, phosphorus	Not specified	Sighted in site water monitoring data spreadsheet and AEMRs/EPL Annual Returns	Compliant
Sample Name	Sample Location	Frequency	Pollutants Analysed	EPL Limits Apply																			
BBLD2	EPL Monitoring Pt No.2. In sump at discharge from STP maturation pond to transpiration bed area	Monthly during discharge	Oil & grease, TSS, pH, BOD, faecal coliforms, nitrogen, phosphorus	Not specified																			
BBLDP1	EPL Monitoring Pt No.11 Immediately below the pipe outlet or in stilling pool below spillway of overshoot dam	Monthly during discharge	EC, oil & grease, sulphate, iron, TSS, pH, flow rate, hardness, MBAS, nitrogen, phosphorus	Oil & grease, pH, total iron, TSS																			
BBWMP1	EPL Monitoring Pt No. 12 Pool within Ben Bullen creek upstream of active surface mining area	Monthly (during flow)	EC, oil & grease, sulphate, iron, TSS, pH, flow rate, hardness, nitrogen, phosphorus	Not specified																			

Reference	Requirement					Evidence	Audit Finding
Mining Operations Plan (revised Oct 2013)							
	BBPOT	Potable water from main kitchen in Administration	Monthly	pH, EC, Hardness, heterotrophic standard plate count, total coliforms, E coli, Pseudomonas	N/A	Sighted in site water monitoring data spreadsheet and AEMRs/EPL Annual Returns	Compliant
	BBCHPP MEAL ROOM	Potable water from kitchen in Washery.	Monthly	pH, EC, Hardness, heterotrophic standard plate count, total coliforms, E coli, Pseudomonas	N/A		
	BBREAS	Spring on Ben Bullen Creek	Monthly (during flow)	EC, iron, oil & grease, pH, sulphate, nitrogen, phosphorous, and TSS			
	BBDW	Dirty water dam	Monthly	EC, Iron, oil & grease, pH, Sulphate, TSS	N/A		
	BBPRW	Process water dam	Monthly	EC, Iron, oil & grease, pH, Sulphate, TSS	N/A	Sighted in site water monitoring data spreadsheet and AEMRs/EPL Annual Returns	Compliant
	BBSTP2	STP Maturation Pond No 2	Monthly	pH, BOD, Faecal coliforms, nitrogen, phosphorus	N/A		
	BBBC	Box cut sump	Monthly	pH, EC, iron, sulphates	N/A		
	BBBBC Mid	Ben Bullen Creek mid-way through site	Monthly (during flow)	Flow rate, pH, EC, TSS, iron, sulphates, oil & grease, nitrogen, phosphorus	N/A		
	BBLT	'Lake Tegan'	Monthly	EC, iron, oil & grease, pH, sulphate, nitrogen, phosphorous, and TSS	N/A	Sighted in site water monitoring data spreadsheet and AEMRs/EPL Annual Returns	Compliant
	BBJ	Jews Creek junction with discharge channel from Overshot Dam (downstream of all mining operations and dewatering bore discharges)	Monthly (during flow)	Flow rate, pH, EC, TSS, iron, sulphates, hardness, oil & grease, nitrogen, phosphorus	N/A		
	BBJC2	Jews Creek upstream of mining operations, but below dewatering bore discharges	Monthly (during flow)	Flow rate, pH, EC, TSS, iron, sulphates, oil & grease, nitrogen, phosphorus	N/A		
	BBJCH	Jews Creek headwaters	Monthly	Flow rate, pH, EC, TSS, iron,	N/A		
		upstream of all mining operations and mine dewatering discharges	(during flow)	sulphates, hardness, oil & grease, nitrogen, phosphorus			
Note: BOD = Biochemical Oxygen Demand MBAS = Methylene Blue Active Substances COD = Chemical Oxygen Demand TSS = Total Suspended Solids EC = Electrical Conductivity						Noted	

Reference	Requirement	Evidence	Audit Finding
Mining Operations Plan (revised Oct 2013)			
	All licenced discharge points and internal monitoring points will be monitored during the care and maintenance phase of the mine.	Noted and conducted to date, monitoring records reviewed	Compliant
7.3 Ground Water Pollution			
7.3	Water quality in all except two of these bores were monitored by ALS on a monthly basis in conjunction with the surface water monitoring program up until July 2013 as described above in Section 7.2.	Noted	
	After the relinquishment of LDP3 and LDP6 in July 2013, the north and south de-watering borehole sites were no longer able to be sampled and were removed from the monthly sampling schedule.	Noted	
7.3	Permission has been requested from DTI for the cessation of groundwater quality monitoring. If permission is granted water quality monitoring of the piezometer sites will cease after September 2013, 2 years post mining of longwall panels 29-31.	Noted	
7.5 Threatened Flora			
7.5	Potential habitat for both <i>E. cannonnii</i> and <i>P. marginata</i> are isolated to areas north of the current lease area and they have not been affected by mining activities on site. Baal Bone has developed a Biodiversity and Land Management Plan to ensure that site operations (in particular vegetation clearing and ground disturbing activities) do not potentially impact on these species. This Plan was reviewed and updated in Q2 2013.	Noted	
7.11 Aboriginal Heritage			
7.11	A draft AHMP was prepared and circulated to all participants for review and comment in November 2008. No submissions were received from the groups and the final report was submitted to OEH in December. Implementation of the Plan has commenced with the inclusion of the site in the LW29-31 Subsidence Monitoring Program. A review of the ACMP was undertaken on the 7th July 2011 to account for new conditions required under the new Part 3A development consent received by Baal Bone on the 14th January 2011. The plan was revised in 2012 to reflect care and maintenance activities.	Noted	

Reference	Requirement	Evidence	Audit Finding
Pollution Incident Response Management Plan (2013 reviewed)			
98C (1)(g)	(i) are responsible for activating the plan,	This is in the PIRMP	Compliant
	(ii) are authorised to notify relevant authorities under section 148 of the POEO Act, and	This is in the PIRMP	Compliant
	(iii) are responsible for managing the response to a pollution incident.	This is in the PIRMP	Compliant
98C (1)(h)	The contact details of each relevant authority referred to in section 148 of the POEO Act.	This is in the PIRMP	Compliant
98C (1)(i)	Details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in the vicinity of the premises to which the licence relates or where the scheduled activity is carried on.	This is in the PIRMP	Compliant
98C (1)(j)	The arrangements for minimising the risk of harm to any persons who are on the premises or who are present where the scheduled activity is being carried on.	This is in the PIRMP	Compliant
98C (1)(k)	A detailed map (or set of maps) showing the location of the premises to which the licence relates, the surrounding area that is likely to be affected by a pollution incident, the location of potential pollutants on the premises and the location of any stormwater drains on the premises.	This is in the PIRMP	Compliant
98C (1)(l)	A detailed description of how any identified risk of harm to human health will be reduced, including (as a minimum) by means of early warnings, updates and the action to be taken during or immediately after a pollution incident to reduce that risk.	This is in the PIRMP	Compliant
98C (1)(m)	The nature and objectives of any staff training program in relation to the plan.	Competent Person training.	Compliant
98C (1)(n)	The dates on which the plan has been tested and the name of the person who carried out the test.	Last tested in June 2013. Noted by the auditors	Compliant
98C (1)(o)	The dates on which the plan is updated.	Last tested in June 2013 and updated in August 2013. Noted by the auditors	Compliant
98C (1)(p)	The manner in which the plan is to be tested and maintained.	This is in the PIRMP	Compliant

Reference	Requirement	Evidence	Audit Finding
Pollution Incident Response Management Plan (2013 reviewed)			
2. PREMISE DETAILS			
2.3 Chemicals and Potential Pollutants			
2.3	All chemicals at BBC are included in a central register available at key locations around the complex.	Chemical register and Chemaalert	Compliant
	All chemicals are accompanied by the relevant Material Safety Data Sheets as required by work health and safety regulations.	SDS are up to date	Compliant
2.3	Dangerous goods are stored in licensed explosive magazines in accordance with Workcover requirements.	Licensed explosives magazines are located on site but there are only 6 detonators left on site, no explosives.	Compliant
3. MANAGEMENT AND RESPONSIBILITIES			
3.1 Legal Duty to Notify			
3.1	All BBC employees and contractors are responsible for alerting management personnel to all environmental incidents or hazards which may result in an environmental incident, regardless of the nature or scale.	Noted and included in site inductions	Compliant
3.1	Notification responsibilities are detailed in the POEO Act (Section 148), which encompasses all site personnel, including contractors and sub-contractors. These can be categorised broadly as:	Noted	
	<ul style="list-style-type: none"> the duty of an employee or any person undertaking an activity: Any person engaged as an employee or undertaking an activity (at BBC) must, immediately after becoming aware of any potential incident, notify their relevant manager of the incident and all relevant information about it. This is to be undertaken as per Section 5.2; and 	Noted	Compliant
	<ul style="list-style-type: none"> the duty of the employer or occupier of a premises to notify: An employer or occupier of the premises on which the incident occurs, who is notified (or otherwise becomes aware of) a potential pollution incident, must undertake notification to the appropriate regulatory authority of any "material harm incidents", including relevant information. Notification shall be undertaken by the Environment and Community Officer or Operations Manager as per Section 5.2. 	Noted	Compliant
3.2 PIRMP Management			
3.2	The specific responsibilities associated with the management and implementation of the PIRMP is outlined in Table 3.1 below.	Noted	
Operations Manager	Responsible for authorising the PIRMP and all subsequent updates	Noted	Compliant
	Responsible for ensuring adequate resourcing for implementation of the PIRMP	Noted	Compliant
	Authorised to liaise with the relevant authority	Noted	Compliant

Reference	Requirement	Evidence	Audit Finding
Pollution Incident Response Management Plan (2013 reviewed)			
Under Manager in Charge	Responsible for coordinating the response to a pollution incident	Noted	Compliant
	Facilitate site personnel in implementation of the PIRMP	Noted	Compliant
Environment and Community Officer	Responsible for undertaking notification as defined in this PIRMP	Noted	Compliant
	Responsible for managing the response to a pollution incident	Noted	Compliant
	Responsible for arranging testing and updating of the PIRMP	Noted	Compliant
	Responsible for ensuring notification and training of PIRMP	Noted	Compliant
	Responsible for coordinating communications with affected community members	Noted	Compliant
	Responsible for coordinating the response to a pollution incident	Noted	Compliant
	Facilitate site personnel in implementation of the PIRMP	Noted	Compliant
	Communication of the PIRMP to site personnel	Noted	Compliant
4. INCIDENT MANAGEMENT			
4	In the case of an environmental incident, prior to any other action, the site must contact 000 if the incident presents an immediate threat to human health or	Noted	Not Triggered
	Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.	Noted	Not Triggered
4	If the incident does not pose any threat to human health or property, concurrently with contacting emergency services (000), all possible actions should be taken to control the pollution incident and minimise health, safety and environmental consequences. These actions must be employed to the maximum extent possible	Noted	Not Triggered
	• provide for the safety of people at and within the vicinity of the site, and	Noted	Not Triggered
	• contain the pollution incident.	Noted	Not Triggered
4	In compliance with XCN GDL 15.0 Incident Management, the actions to be implemented at BBC on the occasion of an incident include the following:	Noted	Not Triggered
	1. Secure the scene and contain the incident.	Noted	Not Triggered
	2. Gather information (i.e. environmental monitoring).	Noted	Not Triggered
	3. Determine the investigation level.	Noted	Not Triggered
	4. Commence an ICAM (if required).	Noted	Not Triggered

Reference	Requirement	Evidence	Audit Finding
Pollution Incident Response Management Plan (2013 reviewed)			
	5. Review and classify information and determine actions.	Noted	Not Triggered
	6. Complete actions.	Noted	Not Triggered
	7. Trend analysis reports.	Noted	Not Triggered
4	Any changes to emergency procedures are documented and communicated to all personnel.	Noted	Not Triggered
4	All BBC employees and contractors receive emergency preparedness and response training during their site familiarisation induction. Controls of personal protective equipment and incident containment and control equipment are detailed in the risk assessment documents listed in Section 2.2, this includes but is not necessarily limited to:	Noted	Not Triggered
	• emergency spill kits;	Noted	Not Triggered
	• portable pumping infrastructure; and	Noted	Not Triggered
	• earth moving plant.	Noted	Not Triggered
4	BBC has limited authority to undertake pollution management activities on private property, or outside the site boundary and in such cases will liaise directly and provide appropriate assistance to the relevant authority and emergency services.	Noted	Not Triggered

Reference	Requirement	Evidence	Audit Finding													
Pollution Incident Response Management Plan (2013 reviewed)																
5. NOTIFICATION PROCEDURES																
5.1 Determination of Material Harm																
Risk assessment	Following containment of the incident, immediate action must be taken to determine if the incident can be classified as a 'material harm incident'	Incident reporting form has a risk assessment section	Compliant													
5.1	The determination of a material harm incident will be made by the Operations Manager in consultation with the Environment and Community Officer.	Noted	Compliant													
	If the Operations Manager is not available immediately, the determination will be made by the Environment and Community Officer.	Noted	Compliant													
5.2 Internal and External Notification																
5.2	Notification of an environmental incident is the responsibility of all site and contractor personnel.	Noted and included in site inductions	Compliant													
5.2	The agencies listed in Table 5.1 must be contacted in the order outlined below:	Noted														
	<table border="1"> <thead> <tr> <th colspan="2">Table 5.1 PIRMP Notification Requirements</th> </tr> <tr> <th>Agency</th> <th>Contact details</th> </tr> </thead> <tbody> <tr> <td>Fire and Rescue</td> <td>000 (To be contacted first if the incident presents an immediate threat to human health or property and emergency services are required, or last if emergency response is not required.)</td> </tr> <tr> <td>EPA</td> <td>131 555</td> </tr> <tr> <td>Ministry of Health (Sydney West Office)</td> <td>(02) 9840 3811 (ask for Public Health Officer on call)</td> </tr> <tr> <td>Work Cover</td> <td>131050</td> </tr> <tr> <td>Lithgow City Council</td> <td>(02) 6354 9999</td> </tr> </tbody> </table>	Table 5.1 PIRMP Notification Requirements		Agency	Contact details	Fire and Rescue	000 (To be contacted first if the incident presents an immediate threat to human health or property and emergency services are required, or last if emergency response is not required.)	EPA	131 555	Ministry of Health (Sydney West Office)	(02) 9840 3811 (ask for Public Health Officer on call)	Work Cover	131050	Lithgow City Council	(02) 6354 9999	Included in Incident Management procedure
Table 5.1 PIRMP Notification Requirements																
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Work Cover	131050															
Lithgow City Council	(02) 6354 9999															
5.2	In the instance of identification of an environmental incident or hazard, the personnel will report the issue immediately to their manager, who in turn shall report it to the Environment and Community Officer, or any member of the environmental team.	Noted	Not Triggered													
5.2	Record keeping of incident details, including investigations and outcomes, will be undertaken in accordance with XCN SD ANN 0050 Measurement and Reporting.	Noted	Not Triggered													
5.2	After initial notification of any material harm incident, it will be the responsibility of the Environment and Community Officer to liaise with any authority listed in Table 5.1 that requests additional information, or is providing directions for management of the material harm incident.	Noted	Not Triggered													
	This may include incident investigation reports and ongoing environmental monitoring results.	Noted	Not Triggered													

Reference	Requirement	Evidence	Audit Finding
Pollution Incident Response Management Plan (2013 reviewed)			
5.3 Notification to Local Landholders and Community			
5.3	Community notification shall be undertaken at the determination of the Environment and Community Officer.	Noted	Not Triggered
	The following notification methodology is proposed to be utilised as required:	Noted	Not Triggered
	• early warnings: same day telephone notification to landholders whom may be affected by the incident over the subsequent 24 hour period; and	Noted	Not Triggered
	• updates: follow up phone calls to all landholders whom may have been notified by the initial early warning. Updates are to be provided to the broader local community in affected areas via information sheets or newsletters, Community Consultative Committee meetings, BBC website, media statements or any other strategy as defined in the BBN SD PLN 0028 Social Involvement Plan.	Noted	Not Triggered
5.3	Priority will be granted to notification of sensitive premises in close proximity such as schools, pre-schools, nursing homes and hospitals. Information provided to the community will be relevant to the incident and may include the following details:	Noted	Not Triggered
	• type of incident that has occurred;	Noted	Not Triggered
	• potential impacts local landholders and the community;	Noted	Not Triggered
	• site contact details; and	Noted	Not Triggered
	• advice or recommendations based on the incident type and scale.	Noted	Not Triggered
6. TRAINING, TESTING AND COMMUNICATION			
6.1 Training			
6.1	All personnel affected by the content of this document will receive instruction or explanation on the relevant parts of the document as per the BBN SD PLN 0045 Training and Competency Management Plan.	Sighted training register	Compliant
6.1	Incident management and emergency response shall be included in all XCN Generic and BBC site familiarisation inductions.	Incident management is included in the inductions	Compliant
6.1	A training exercise designed to test the adequacy of emergency preparedness and response will be undertaken at least once each year. Training exercises may involve the emergency response team responding to a simulated emergency, but may also include expanded simulations that involve other (or all) site personnel, the BBC Incident Management Team and external response agencies (Ambulance, Fire, Mines Rescue etc).	Desktop test undertaken in June 2013, review documentation sighted by Auditors.	Compliant
6.1	All training records, including the name of the person undertaking training and date of training, shall be maintained in accordance with BBN SD STD 0005 Document and Data Control.	Assessed elsewhere in this audit	Compliant

Reference	Requirement	Evidence	Audit Finding
Pollution Incident Response Management Plan (2013 reviewed)			
6.2 Testing, Review and Maintenance			
6.2	The testing of the PIRMP will be undertaken to check that the information is accurate and current and that the plan is capable of being implemented in a workable and effective manner. Testing shall be undertaken in the following ways:	Desktop test undertaken in June 2013, review documentation sighted by Auditors.	Compliant
	1. the PIRMP will be tested by assessing and reviewing it and making any necessary changes as identified. Testing is taken to be either a desktop review or an environmental emergency drill procedure. Testing will include all components of the plan, including training requirements;	PIRMP states that Nicole Van den Berg performed a test on 20/6/13, doing an audit and updated the stakeholder list and site contacts on 30/8/13. Documentation from review sighted by auditors (BBN STD 0005)	Compliant
	2. a review of the PIRMP will occur every 12 months commencing from the date of authorisation by the BBC Operations Manager. Contact details in this document must be kept current at all times; and	PIRMP states that Nicole Van den Berg performed a test on 20/6/13, doing an audit and updated the stakeholder list and site contacts on 30/8/13.	Compliant
	3. the PIRMP will be reviewed within one month from the date of any pollution incident that occurs in the course of an activity to which the EPL relates. This review will be undertaken in light of the incident, to provide the information included in the plan is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner.	Noted	Not Triggered
6.2	Records will be kept in accordance with BBN SD STD 0005 Document and Data Control and will be included in Section 7 of this plan. Information to be retained regarding PIRMP testing includes:	PIRMP states that Nicole Van den Berg performed a test on 20/6/13, doing an audit and updated the stakeholder list and site contacts on 30/8/13. Documentation from review sighted by auditors (BBN STD 0005)	Compliant
	• the manner in which the test was undertaken;		Compliant
	• dates when the plan has been tested;		Compliant
	• the person who carried out the testing; and		Compliant
	• the date and description of any update of or amendment to the plan.		Compliant

Reference	Requirement	Evidence	Audit Finding
Pollution Incident Response Management Plan (2013 reviewed)			
6.3 Availability of the PIRMP			
6.3	The PIRMP shall be kept in written form at the EPL premises and shall be made available to all personnel responsible for implementing the plan, and to an authorised officer (as defined in the POEO Act) on request.	Copy sighted, on intranet as well	Compliant
6.3	The PIRMP will be made publicly available within 14 days of finalisation (taken to be authorisation of the PIRMP by the BBC Operations Manager) via the BBC website, in a prominent position and on a publicly available page.	PIRMP states that it is effective as of 30/8/2013 but upload date on website (top of the list, publically available) states 11/11/13, this would be the most recent re view that replaced the existing version.	Compliant
6.3	No personal information (within the meaning of the Privacy and Personal Information Protection Act 1998) will be made publicly available as part of the PIRMP.	Noted	Compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
6. REVIEW OF ENVIRONMENTAL MANAGEMENT SYSTEMS			
6.3 Management Programs and Plans			
6.3.1	The (Waste Management) Plan allows for disposal of general solid wastes to reject emplacement area, however does not define how this should be done to minimise potential issues. Wastes were observed to be placed around the REA in an uncontrolled way.	No longer conducted	Compliant
	It is recommended that BBC consider alternative arrangements for these wastes into approved landfill facilities or provide more robust management practices of waste disposal in the REA, wastes being controlled with cover, and location details kept so as waste dumps within the REA can be found again.	Noted	
7. SUBSIDENCE MANAGEMENT			
7.2 Plan Development			
7.2.5	The SMP approval includes the requirement to prepare an end of panel report for each panel within 6 months of its completion, which includes a summary of subsidence and associated environmental monitoring, analysis of these results against the relevant impact assessment criteria, identification of any trends in monitoring results, and description of any actions taken to manage potential subsidence impacts due to mining. Reports for LW29 and 30 have been completed, and the report for LW31 is due 3 March 2012. The report for LW31 was therefore not available for review.	Report now completed, no other gaps in reporting for SMP.	Compliant
7.3 Adequacy Assessment and Recommendations			
7.3	It is considered that subsidence effects have generally been adequately managed via the SMP and its key operational elements, the Subsidence and Environmental Monitoring Programs, the Subsidence Management Status reports and End of Panel Reports, and the on-going involvement of, and review by, the specialist subsidence consultants. The following recommendations are made with reference	Noted	
	• It is recommended that the monitoring continue and that agreement is reached with DTIRISDRE as to when monitoring may be stopped or if other actions are warranted. Potentially third party assessment that no remaining impacts (i.e. loss of water across the longwall panel) exist would assist in these discussions.	Monitoring Continues, Some subsidence impacts being monitored. Agreement with the department not yet sought.	Compliant
	• It is recommended that BBC continue monitoring the groundwater levels in the monitoring bores, to further understand longer term impacts on the groundwater levels in BBP1-6 and confirm that no ongoing impacts on the swamps emerge. The duration of the monitoring to continue should be developed in consultation with DTIRISDRE.	Monitoring Continues.	Compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
	<ul style="list-style-type: none"> It is recommended that BBC continue to monitor hydrology in the swamps and flora and fauna monitoring as is currently being conducted. The duration of the monitoring to continue should be developed in consultation with DTIRIS-DRE. 	Hydrology monitoring continues. NO impacts to flora or fauna have been identified in the monitoring to date and monitoring has ceased as per the requirements of the SMP.	Compliant
7.3	If monitoring as above identifies new or ongoing environmental concerns, these should be addressed through appropriate actions being undertaken in consultation with DTIRIS-DRE, DP&I and others such as Forests NSW as appropriate.	Noted, nothing identified	
8. REHABILITATION MANAGEMENT			
8.1 Rehabilitation Document Review			
8.1	There are a range of rehabilitation documents developed by BBC that have been assessed as part of the audit including:	Noted	
	1. Biodiversity and Land Management Plan, 2011 (Draft);	Noted	
	2. Ben Bullen Creek Natural Channel Design and Restoration Plan, 2007;	Noted	
	3. Ben Bullen Creek Management Plan (Preliminary Draft) December 2011 (not complete at time of audit, report dated 15/12/11);	Noted	
	4. Environment, Biodiversity and Landscape Functions, 2011;	Noted	
	5. Subsidence Management Plan, 2007;	Noted	
	6. Baal Bone Mine Operations Plan (MOP) 2009-2016;	Noted	
	7. Proposed Mining Operations Plan (MOP) (awaiting approval) Baal Bone Suspension of Mining Operations 2012 to 2015 which incorporates the Rehabilitation Management Plan (dated 23/12/2012);	Noted	
	8. Baal Bone Project Closure Plan (Draft September 2011);	Noted	
	9. Seed mix spread sheets and associated maps for the northern and southern rehabilitation areas in terms of their location usage; and	Noted	
	The rehabilitation objectives in this document appear to be overarching objectives and not specifically targeted to commitments for the site, for example, it does not reflect the commitment in the Baal Bone Colliery Environmental Assessment, March 2010 to incorporate at least 70% diversity of the adjacent Ben Bullen State Forest woodland in the native woodland rehabilitation. The objectives (Section 5.1) refer to more detail in the Detailed Mine Closure Plan such as for native species, however this Plan is not part of the RMP and is not a document that requires regulatory approval.	The revised Biodiversity and Land Management Plan now refers to the revised MOP (2013) for a species list which addresses this issue	Compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
MOP Baal Bone Suspension of Mining Operations 2012 to 2015 (Draft)	In addition, the RMP/MOP does not define in detail the full extent of rehabilitation and detail of rehabilitation activities to be undertaken during the MOP period, or give a clear indication of final landforms.	The revised MOP now addresses these issues	Compliant
	The RMP does not detail closure activities to the point of a detailed closure plan. Further detail on closure in the RMP would assist provide context for the RMP.	A closure plan is not yet required.	Not triggered
	Discussions with site personnel indicated that the form of closure landforms at the site are highly dependent on whether further material is available for infill of voids in the southern area of the mine (most likely sourced from reject produced potential future mining activities). Until it is known if mining operations will continue on the future or not, a final landform appropriate to the site cannot be determined. For example, at the time of the site inspection it was observed that some off site creeks drain into the southern void. Significant fill would be required to fill the void to enable a sustainable drainage line for this creek to be constructed.	Noted	
	Water management at the mine is highly complicated, with long term site personnel having difficulty in understanding all water sources and drainage patterns across the site, particularly in and through areas of old fill, which is highly porous. It is understood that the final landform is likely to allow seepage from various areas of the site to drain to the current site discharge point. Consideration of water quality and management is required in developing detailed closure landforms and plans.	Noted	Not triggered
	Performance monitoring and ongoing monitoring of rehabilitation is mentioned throughout the document however it is not clear what monitoring will be undertaken and who will be accountable for the monitoring and implementation of corrective	The revised Biodiversity and Land Management Plan now addresses these issues	Compliant
	More detail is required for Section 7.8 Weeds, to target each weed and the appropriate time of year to target. For example St John's Wort was witnessed during the audit to be a major weed of concern in December 2011 and has clearly not been sprayed prior to flowering/seeding and will therefore become a larger problem in 2012 and beyond. The Land Management Assessment (2011) failed to	St Johns Wort is not a noxious weed in Lithgow LGA. No further action required.	
	Key points made by DTIRIS-DRE in their comments dated 18/1/2012 related to:	Noted	
	• Salvage of equipment left underground and requirement for recovery of equipment with a potential for release of contaminants and justification for leaving existing equipment underground;	This has been done apart from the longwall unit which was unable to be recovered, detailed in the MOP	Compliant
	• Rehabilitation Status at MOP Commencement and requirement for clarification of rehabilitation areas over the period of the MOP;	Now clarified in the revised MOP	Compliant
	• Reference of Completion Criteria in the main part of the report;	Now clarified in the revised MOP	Compliant
• Requirement for a clear summary of the final rehabilitation at mine closure;	Now clarified in the revised MOP	Compliant	

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
	<ul style="list-style-type: none"> Proposal to discontinue monitoring of groundwater was not supported; and Requirement for the provision of a rehabilitation cost estimate to be provided. 	Noted, MOP now notes continued monitoring	Compliant
	Based on the above omissions, it has been assessed that the information provided in this document is an inadequate level of rehabilitation detail required for the Baal Bone site in suspension of its operations and that the above omissions should be	This was attached to the MOP but not included, not seen as necessary	Not triggered
		Noted, comments above	
	The Biodiversity and Land Management Plan (BLMP) was at the time of the audit and as of January 2012 in Draft format. The Draft BLMP was reviewed and is considered to be relatively high level and generic with a number of omissions. It is considered that the Plan needs to be more prescriptive in the following areas:	Now finalised	Compliant
	1. Timeframes and detailed short, medium and long term action plans for seasonal biodiversity works.	S3.3 of Land and Biodiversity Management Plan	Compliant
	2. Further detail in key areas such as; fauna management and flora management.	These appear to be adequate for the risk posed to flora and fauna by the site activities in the revised Land and Biodiversity Management Plan	Compliant
	3. Section 3.1.2 should include or refer to a comprehensive list for revegetation as per MOP 2009-2016 (Table 11) and should be verified by a botanist/ecologist in addition to the site environmental manager.	this is now in the revised MOP	Compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
Biodiversity and Land Management Plan, 2011 (Draft)	4. Detailed implementation measures to be provided for; Ben Bullen creek (or reference given to Ben Bullen Creek Management Plan (Preliminary Draft) December 2011 once finalised and signed off), conserving and reusing topsoil, managing impacts on fauna (not just threatened fauna), landscaping requirements, habitat enhancement, controlling access and aboriginal/offset conflicts.	Ben Bullen Creek is not finalised. Conserving and reusing topsoil is and should be addressed in the RMP/MOP. No impacts on fauna have been identified and site activities at the current level are unlikely to cause any impacts. This would need revision should the site recommence production or move to closure. Landscaping requirements and managing habitat are detailed in the revised plan and the RMP/MOP. Controlling access is detailed in the MOP. No aboriginal - offset conflicts have been identified, there have been no requests by the aboriginal community to access the site or areas impacted by site activities.	Compliant
	5. Further detail on the implementation and review accountability.	The detail in the revised management plan is adequate	Compliant
Natural Channel Design Ben Bullen Creek Diversion, 2007	The Natural Channel Design Ben Bullen Creek Diversion (NCDBBCD) report, 2007 provides good information regarding the proposed design criteria for the diversion of Ben Bullen Creek however requires a detailed plan to better define objectives and outcomes.	Noted	
	The detail required to accompany the NCDBBCD plan is provided in the Ben Bullen Creek Management Plan (Preliminary Draft). It is noted that the Plan is still in Draft form. As such, there is no formal sign off externally by relevant stakeholders of the detail in the document regarding approaches and outcomes.	Noted	
	The current Project Approval requires Baal Bone Colliery to restore Ben Bullen Creek to the satisfaction of the Director-General, in general accordance with the Ben Bullen Creek Natural Channel Design and Restoration Plan (Revegetation	Noted	

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
Ben Bullen Creek Management Plan (BBMCP Preliminary Draft) December 2011	The Ben Bullen Management Plan indicates that to date, two sections of the Ben Bullen Creek Diversion (Sections 1 and 3) have been constructed and the middle section (Section 2) has not been constructed as it is constrained by mine infrastructure that will only be removed during closure.	Noted	
	Ben Bullen Creek Management Plan was provided as a preliminary yet to be finalised (report provided was not reviewed or accepted by BBC - dated 15/12/11) and signed off by DTIRIS-DRE, ideally with comments from NSW OEH and the Central Tablelands CMA. The management plan is comprehensive and provides good detail including timeframes for management and requirements for activities/options to be completed.	Noted	
	The design report by Revegetation Consultants (2007) did not include a revegetation plan; however a creek specific revegetation plan is required to address comments such as:	Noted	Not triggered
	• use of topsoil – generally topsoil placed into a newly constructed channel will be eroded with the first rain event, but in some areas and with the appropriate protection mechanisms, topsoil may be required to be used;	Noted	Not triggered
	• soils management including the extent of ripping and scarifying, amelioration of poor and dispersive soils, and strategies to manage the relatively poor subsoils;	Noted	Not triggered
	• revegetation strategies, including planting strategies, a floral community succession plan where cover crops are used to provide an initial stabilising layer, and how the required structural and floristic diversity will be achieved;	Noted	Not triggered
	• a monitoring program to achieve the desired final outcome; and	Noted	Not triggered
	• strategies to control weeds, replace failed plantings etc.”	Noted	Not triggered
	Given the Plan is preliminary and not signed off at site level, these comments are noted as also being preliminary.	Noted	Not triggered
Subsidence Management Plan, 2007	Given that mining has been completed, a review of the adequacy of this document has not been completed.	Noted	
	The Baal Bone Colliery Project Closure Plan (as developed in Draft form) has been developed by consultants KMH in accordance with the Xstrata Coal Project Management Standard to provide clear direction and guidance for mine closure and rehabilitation. The scope of the Project Closure Plan covers the Baal Bone Colliery including the Coal Handling and Preparation Plant (CHPP), rail loop, ventilation shaft and restoration of Ben Bullen Creek.	Noted	

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
Baal Bone Project Closure Plan (PCP, Draft July 2011)	The draft PCP details decommissioning and rehabilitation actions required to achieve post mining land use objectives. The draft PCP indicates that implementation of some or all of the PCP is likely to be delayed as the mine will be placed on a care and maintenance basis while additional mining options are investigated. The PCP includes significantly more detail on closure and rehabilitation approaches than the MOP and included RMP.	Noted	
	The Draft PCP provides a summary of the Rehabilitation History between 2005-2010 however it does not have rehabilitation history to 2011. The summary schedule provided in Table 4.1.1 is a positive inclusion in the plan, however start to finish dates and/or completion dates (as some of this is complete) should be included.	Noted	
	The PCP had not been submitted to DP&I or other agencies at the time of the site audit, hence has had no internal sign-off or external approval. Given that Closure activities are not planned in the immediate term, timing of the implementation of the PCP is not defined.	Noted	
Seed mix spread sheets and associated maps for the Southern and Northern Rehabilitation Areas in terms of their location usage	Seed mix spread sheets were reviewed however do not cross reference the areas within the Baal Bone Mine site where they were being applied, only to the land form, i.e. slopes and banks. This could be improved upon for further rehabilitation works, e.g. by more detail being provided when filling in "Form No 2 & 5 – Mix 4". This would allow better correlation of seed types and mixes with actual on ground areas for review of performance.	The seed mix issue is now more detailed in the MOP. No further works of the type described have been conducted since the 2011.	Not triggered
	One of the introduced seed mixes include Phalaris, which can quickly become invasive and is a troublesome grass even in grazing terms across NSW. This species should therefore be avoided.	Phalaris remains in the mix	Non-compliant
	Further diversity should be sought in the seed mix. Reference is provided to the revegetation list below in addition to the MOP revegetation list and Baal Bone Revegetation List September 2006.	Seed mix looks adequate in the current MOP. Many of the endemic natives of the area are cryptic and difficult to collect seed from.	Compliant
	Diversity with shrubs, grasses/sedges/forbs especially is required.	Seed mix looks adequate in the current MOP. Many of the endemic natives of the area are cryptic and difficult to collect seed from.	Compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
	Global Soil Systems seeding reports show seeding in 2000 of acacias and eucalypts, however diversity is now needed with understory species, and mid story species as well as relative weed control.	Noted, some area of the site require rehabilitation maintenance but there are systems in place to address these issues.	Compliant
8.2 Rehabilitation Monitoring			
Baal Bone Rehabilitation Monitoring Report, 2009, 2010 and 2011	The following provides a summary of the primary management recommendations from the 2011 Rehabilitation Monitoring Report by DnA Environmental:	Noted	
	While the number of shrubs is excessively high in numerous woodland rehabilitation sites, they are providing valuable ecological services in the short-term via the provision of perennial vegetation cover, nitrogen fixation, dead leaf material (especially from stressed and dying individuals) and additional micro sites and soil surface relief. They also provide protection to eucalypts and other desirable species from extreme weather and will provide dead woody debris and vegetative materials from dying individuals as well as offer some wildlife habitat. Despite the low proportion of eucalypts in several sites increasing mortality of the acacias is expected to continue, thus increasing the proportion of eucalypts within the sites to more suitable levels in the longer-term.	Noted	
	Many rehabilitation sites could benefit from improved ground cover via the application of vegetative material such as weed free pasture hay, scattered logs and branches and over sowing with a sterile cover crop and native grass seed. This will effectively increase the functional patch area, increase ground cover and associated ground cover targets, reduce exotic species invasion and improve or accelerate improvements in soil properties including organic matter. Other vegetative materials such as woodchips, Organic Growth medium (OGM), chicken manure, logs and branches and/or selectively cut acacias and spread out on the site may also be techniques used to improve patch area and ecological function and stability.	Good ideas from an ecological perspective but practically impossible on established (but not at closure standard) rehabilitated areas.	
	The level of perennial ground cover (<0.5m) recorded in all rehabilitation sites continued to fall within or exceeded cover values recorded in the reference sites, with the exception of Box Cut and all sites demonstrated an increased cover value since 2010. However, most perennial vegetation cover (<0.5m) can be attributed to extensive acacia establishment rather than perennial ground cover plants (such as native grasses), which may provide some management implications as the acacias mature, due to the loss of low (<0.5m) canopy cover and increased competition and mortality.	Some of these areas have had tree species reseeded into them since the 2011 audit with some success evident in the site inspection in 2013.	Compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
	Despite the scattered occurrences of native perennial grasses in most rehabilitation sites and evidence of their recruitment, the unstable soils and associated erosion has caused many grass juveniles to become buried or uprooted. Increasing the patch area in combination with additional seeding of native perennial ground covers and sterile cover crops (including the application of native pasture hay) may be required in an attempt to stabilise the rehabilitation slopes and increase the soil fertility to ensure these KPI targets continue to be met.	Reseeding of native grasses into established rehab has not occurred. This is possible though difficult and should be considered where the extent of native grasses is inadequate.	Non-compliant
	While in most cases the species used were considered to be endemic to the broad catchment area, not all species were consistent with those associated with the reference sites or in more local vegetation assemblages. Future rehabilitation programs should refine (and reduce) seed mixes to species found naturally occurring within specific vegetation communities, including a broader range or higher density of ground cover species and in more similar proportions.	Noted and agreed.	Not triggered
	While there was little evidence of adverse impacts by feral and pest animals or noxious weeds these should be regularly monitored and targeted control programs implemented when required.	Monitoring of pest species is conducted by site personnel and contractors. Control is carried out when required.	Compliant
Land Management Assessment Reports 2010 and 2011	The Land Management Assessment reports, 2010 and 2011 provide a good base for information regarding; weeds, erosion and sediment control, feral animals, power lines, fencing, grazed land, rehabilitation and land management issues.	Noted	
	The reports underestimate the extensive prevalence of weeds and missed key NSW declared noxious weed such as St Johns Wort (<i>Hypericum perforatum</i>), which was observed to have infested the mine site extensively.	St Johns Wort is not listed as noxious in the Lithgow LGA and therefore does not need control apart from the maintenance of the integrity of the rehabilitated areas.	Compliant
	The reports were found to not clearly link the annual rehabilitation measures with what was assessed during each annual visit which formed the basis of the report.	Noted	
	The photographic records at the back of the Land Management Assessment are an important addition.	Noted	
	It is recommended that future reports: <ul style="list-style-type: none"> • provide detail on annual rehabilitation activities that have been undertaken relative to the area being assessed to provide a more meaningful assessment of rehabilitation over the period of review. 	This detail has not been included	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
	<ul style="list-style-type: none"> Include the noxious weeds status of each weed being identified and discussed in terms of its required control methods under the Noxious Weeds Act 1993 for the Lithgow City Council Local Government Area. 	Status included	Compliant
Rehabilitation Inspection Forms/ Establishment Forms	Inspection forms, where provided to the audit team, were generally not well filled in with various gaps.	Forms reviewed during the audit were completed to a reasonable standard	Compliant
	It is recommended that in future these are to be filled out in a more detailed way to include information including; suggested actions, responsibility, dues dates for rehabilitation etc.	Forms reviewed during the audit were completed to a reasonable standard	Compliant
	Establishment forms provide good detail, such as timing and environmental parameter information across the rehabilitation works.	Forms reviewed during the audit were completed to a reasonable standard	Compliant
	Photographs were also considered a valuable input.	Forms reviewed during the audit were completed to a reasonable standard	Compliant
	It is recommended that details such as the author is on these documents for accountability and for future Baal Bone staff records.	Forms reviewed during the audit were completed to a reasonable standard	Compliant
8.3 Site Inspection			
	The site inspection took place December 6, 7 and 8, 2011 and inspected the Southern Rehabilitation area, the Northern Rehabilitation Area and the area above long walls 29 to 31 including the Cox's River Swamp area. Some inspection observations in these areas included (with relevant photos below the text):	Noted, these areas are commented on elsewhere in the review of compliance with the 2011 audit findings.	
	<ul style="list-style-type: none"> The Northern Rehabilitation Area generally was largely acacia and exotic pasture/weedy dominant with minimal areas having been planted into topsoil. Further plantings are needed to enhance diversity of species. 	Noted, these areas are commented on elsewhere in the review of compliance with the 2011 audit findings.	
	<ul style="list-style-type: none"> Further Plantings are needed to enhance ground coverage in some areas of the Northern Rehabilitation Area. In other areas across the Northern Rehabilitation Area such as North Open Cut 3 (NOC3) and NOC4 individual plants appeared to be stressed and/or had died; there was low species diversity and a high weedy understorey. 	Noted, these areas are commented on elsewhere in the review of compliance with the 2011 audit findings.	

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
8.3	<ul style="list-style-type: none"> The Southern Rehabilitation areas of rehabilitation are regenerating well in some parts with South Open Cut 3 (SOC 3) demonstrating a variety of native trees and shrubs. After reading key documents, it was noted that this area was planted into topsoil, as opposed to substrate having been applied, showing the best diversity in terms of native rehabilitation on site. 	Noted, these areas are commented on elsewhere in the review of compliance with the 2011 audit findings.	
	<ul style="list-style-type: none"> Lake Tegan – The establishment of Lake Tegan and other such dams and water habitat areas are good ecological rehabilitation goals. Lake Tegan will provide habitat and resources for flora, fauna and also introduced stock, in future times. Additional planting could be undertaken to increase ground cover. 	Noted, these areas are commented on elsewhere in the review of compliance with the 2011 audit findings.	
	<ul style="list-style-type: none"> Ben Bullen Creek - The regeneration and landscaping to Ben Bullen Creek appeared to have good diversity of native species, however lacked dense ground coverage. 	Noted, these areas are commented on elsewhere in the review of compliance with the 2011 audit findings.	
	<ul style="list-style-type: none"> North Bore or LD6 – The bank edges of the bore/dam was observed to have regenerated well with good native diversity, only lacking dense ground coverage. 	Noted, these areas are commented on elsewhere in the review of compliance with the 2011 audit findings.	
	<ul style="list-style-type: none"> Jews Creek Swamp - Long wall mining and the discharge of water pumped from underground has influenced the presence and extent of Jews Creek Swamp and its present situation. Water was also noted to be ponding in subsidence areas in the creek upstream of the discharge. During the site visit, evidence of some die back in canopy species was seen on the outer extent of the swamp areas (see below). 	Noted, water is no longer discharged to Jews Creek Swamp. The swamp is expected to return to premining condition over time as natural flow regimes return.	
	<ul style="list-style-type: none"> There is not sufficient topsoil available for future rehabilitation activities due to historical mining on the site. As such, rehabilitation outcomes may not be as successful for those areas as for the areas rehabilitated on topsoils. 	Noted, the freedig topsoil now stockpiled on-site should allow cover of most areas. To be addressed in the mine closure plan when finalised.	Not triggered

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
8.4 Rehabilitation Recommendations			
	Following the review of rehabilitation documents and the site inspection URS have made the following recommendations with respect to rehabilitation:	Noted	
	• That the various rehabilitation management plans are finalised, submitted (if not already submitted) and signed off by appropriate regulatory agencies and stakeholders.	Noted	Compliant
	• That the relevant plans are implemented and that implementation actions are documented.	Noted	Compliant
	• Consideration be given to documenting all rehabilitation objectives, actions and requirements in one document to ensure all key requirements from all of the rehabilitation documents can be effectively understood, known of by relevant people and actions effectively tracked.	The regulatory authorities require documentation of rehab objectives in a number of documents. The MOP is the overarching rehab doc and has adequate detail to address this issue.	Compliant
	• Ensure that rehabilitation actions are systemised so that there is continuity and consistency of approach and quality with changing personnel.	Rehab actions are entered into the system as much as they can be recognising that rehab actions are driven by the weather and natural cycles and changes.	Compliant
	• That filing of rehabilitation data, reports, spreadsheets, correspondence and plans at Baal Bone is organised with a much clearer, logical pathway for ease of access, data capture, storage, recollection and for assessment of legislative obligations.	Site personnel were able to access all documents that existed and were requested by the audit team.	Compliant
	• The rehabilitation plan within the new MOP (MOP Baal Bone Suspension of Mining Operations 2012 to 2015) needs enhancing in terms of rehabilitation future efforts and finalising/signoff from the DP&I and DTIRIS-DRE.	Addressed above	Compliant
	• It is recommended that Rehabilitation documents including the MOP define what monitoring will be undertaken and who will be accountable for the monitoring and implementation of corrective actions.	Addressed above	Compliant
	• That further work is completed in defining a closure landform specifically including all drainage lines and topography which is consistent with fill volumes that will be available on site at the time of closure.	Addressed above	Not triggered

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
8.4	<ul style="list-style-type: none"> Cox's River Swamp – It is recommended that detailed vegetation assessments continue as well as the current water level and water quality monitoring, and hydrology assessments. The monitoring should continue for a sufficient period so as to be certain that all potential impacts of Longwall mining in LW29-31 are captured in the monitoring. The results of this monitoring should continue to be reported for this period. 	Addressed above	Compliant
	<ul style="list-style-type: none"> That Central Tablelands CMA are involved in any future Ben Bullen Creek rehabilitation efforts. 	Noted	Not triggered
	<ul style="list-style-type: none"> BBC Explore options for 'translocation of seed' to promote establishment of the Vulnerable (TSC Act and EPBC Act) Capertee Stringy Bark (<i>Eucalyptus cannonii</i>). Such a rehabilitation initiative would need to be guided and supported by NSW OEH threatened species officers to ensure strict legislative issues are met and that the rehabilitation effort is clearly controlled. Appropriate licences for seed harvesting would need to be obtained if seed was to be gathered from outside of the land parcel covered by the original development approval. 	Species not identified on the site, is to be included in future seed mixes though	Not triggered
	<ul style="list-style-type: none"> That recommendations from the various monitoring reports reviewed in this audit and discussed in Section 8.2 are actioned. 	Noted	
	<ul style="list-style-type: none"> Establishment of Bidy bush (<i>Cassinia arcuata</i>) as reported and seen across the site may become a problematic 'monoculture' in areas for which early control may be needed. BBC noted that extensive weed spraying program was conducted twice in 2011, with the latter half put off until later in summer due to rain coinciding in availability of weed spray personnel). 	Noted	Not triggered
	<ul style="list-style-type: none"> Remove from the introduced seed mix spreadsheets "Phalaris", which can quickly become invasive and is a troublesome grass even in grazing terms across NSW. This species should be avoided, even for the 'grazing' rehabilitation areas. 	This has not been done	Non-compliant
	<ul style="list-style-type: none"> Rehabilitation efforts need to focus on achieving diversity of species and enhancing vegetation structure (ground, mid and canopy layers) with a strong focus on diverse native ground coverage (current dominance is of Acacias, Eucalypts) and reduction in weed species. 	Noted	
	<ul style="list-style-type: none"> Where possible, the application of topsoil and preparation of the planting base for future rehabilitation should look to incorporate a suitable 'native appropriate' top soil to enhance native uptake, diversity, cover and abundance. 	This is not reasonable or feasible, the topsoil used at the site is from the site though it may at times be from a different soil classification due to the limited amount available.	Compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
	<ul style="list-style-type: none"> Rehabilitation species for the 'woodland' rehabilitation areas should focus on the canopy, shrub and ground storey species outlined in Table 8-1 as well in current documents such as the MOP2009-2016. 	Noted	Compliant
	<ul style="list-style-type: none"> It is recommended that in future rehabilitation records are filled out in a more detailed way to include information including; suggested actions, responsibility, dues dates for rehabilitation etc. 	Forms reviewed during the audit were completed to a reasonable standard	Compliant
	<ul style="list-style-type: none"> Future rehabilitation efforts should focus on increasing ground coverage to incorporate a diverse range, provided in the Grasses/sedges/herbs/climbers section of Table 8-1 as well in current documents such as the MOP2009-2016. 	Noted - agreed	Not triggered
	<ul style="list-style-type: none"> Future rehabilitation planting efforts to focus on threatened species benefits (suitable habitat and food resources outlined in Table 8-1 below), including but not limited to: <ul style="list-style-type: none"> Gang Gang Cockatoo (<i>Callocephalon fimbriatum</i>), Vulnerable, Threatened Species Conservation Act, 1995 (TSC ACT); Bathurst Copper Butterfly (<i>Paralucia spinifera</i>), Endangered TSC Act, Vulnerable, Environment Protection Biodiversity Conservation Act, 1999 (EPBC Act); Regent Honeyeater (<i>Anthochaera Phrygia</i>), Critically Endangered, TSC Act and Endangered, EPBC Act; Powerful Owl (<i>Ninox strenua</i>), Vulnerable, TSC Act; Turquoise Parrot (<i>Neophema pulchella</i>), Vulnerable, TSC Act; Glossy Black cockatoo (<i>Calyptorhynchus lathami</i>), Vulnerable, TSC Act; 	Most of these species are addressed but it should be noted that some are regionally migratory and that rehab should aim to replace and enhance what is lost not create 'novel' habitat.	Compliant
	<ul style="list-style-type: none"> BBC should continue to develop potential closure landforms based on likely mining operations and likely fill to be available for infill of voids. 	Noted	Not triggered
9. SUMMARY OF NON COMPLIANCES AND RECOMMENDATIONS			
DA 3-5	Ensure the effective review and implementation of the Noise Management Plan to maintain compliance with defined noise criteria. This should be easily achieved given the changed status of operations to care and maintenance.	Noise Management Plan was reviewed in June 2012 (Action Plan Summary)	Compliant
DA 3-12	Quarterly environmental performance reviews should be completed and posted on the website in accordance with the reporting requirements set out in Section 5.0 Reporting of the AQMP.	Quarterly Summaries are posted on the website in accordance with reporting requirements	Compliant
	BBC should obtain evidence that Aurecon was approved by DP&I to develop the AQMP.	No evidence presented for this audit	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
DA 3-14	Document the controls and procedures required to minimise the potential for environmental harm as a result of the operation of pipelines.	Weekly work order inspections of pipelines are completed	Compliant
	Finalise and implement water management plans for BBC.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
DA 3 -15	BBCMP to be finalised and signed-off.	BBCMP is in the first stages of development	Non-compliant
	BLMP to be finalised with OEH and include detail regarding the management of Ben Bullen Creek and refer to the comprehensive BBCMP to avoid replication.	BLMP has been finalised and approved, with no reference to BBCMP as it is still in development phase.	Non-compliant
	Higher native diversity and ground coverage is needed to enhance native vegetation resilience, reduce ability for weed competition and heighten bank stability for Ben Bullen Creek.	To be determined in the Ben Bullen Creek Management Plan,	Not triggered
DA 3-16	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
	The approved plan should be implemented and compliance with the plan monitored.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
DA 3-17	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
	The approved plan should be implemented and compliance with the plan monitored.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
DA 3-18	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
	The approved plan should be implemented and compliance with the plan monitored. The upcoming AEMR is to include outcomes of the rehabilitation inspection process for 2011, as per the Ben Bullen Management Plan.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
DA 3-19	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
	The approved plan should be implemented and compliance with the plan monitored.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
DA 3-20	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
	The approved plan should be implemented and compliance with the plan monitored.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
DA 3-21	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
	The approved plan should be implemented and compliance with the plan monitored.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
DA 3-22	BBC to finalise and submit the Water Management Plan and all associated subplans to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
	The approved plan should be implemented and compliance with the plan monitored.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
	Revise the BLMP to address the following: • Include timeframes and detailed short, medium and long term action plans for seasonal biodiversity works.	BLMP includes short, medium and long term action plans	Compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
DA 3-23	• Include further detail in key areas such as; fauna management and flora management.	3.1 of the BLMP outlines these management measures	Compliant
	• Section 3.1.2 should include or refer to comprehensive list for revegetation as per MOP 2009-2016 (Table 11) and should be verified by a botanist/ecologist in addition to the site environmental manager.	List not included in the BLMP but is adequately detailed in the MOP	Compliant
	• Detailed implementation measures to be provided for; Ben Bullen Creek, conserving and reusing topsoil, managing impacts on fauna (not just threatened fauna), landscaping requirements (apart from Ben Bullen Creek, refer to rehab drawings plans perhaps), habitat enhancement, controlling access and	BLMP reviewed by the auditors	Compliant
	• Include further detail on the implementation and review accountability.	BLMP reviewed by the auditors	Compliant
DA 3-24	In order to achieve commitments in the EA relating to species diversity, further rehabilitation efforts are required, including more planting of other species and weed control.	Weed eradication has occurred throughout the audit period, as well as reseeded	Compliant
	Monitoring in 2011 provided recommendations which are to still to be implemented.	Rehabilitation Monitoring Report (2013, DnA Environmental) includes recommendations which are yet to be implemented	Not triggered
	It is recommended that rehabilitation monitoring and advice is obtained from a qualified ecologist/ botanist to ensure appropriate methods, soil preparation/usage, plant species diversity and low weed uptake is achieved on site in coming years.	Rehabilitation Monitoring Report (2013, DnA Environmental) was reviewed by the auditors	Compliant
DA 3-25	The Mining Operations Plan Baal Bone Suspension of Mining Operations 2012 to 2015 (which incorporates the Rehabilitation Management Plan) needs to incorporate more specific rehabilitation objectives and targets. These should include as a minimum, objectives included within the Baal Bone Colliery Environmental Assessment, March 2010 such as:	Noted	
	“At least 70% of the species within the rehabilitated vegetation community will be consistent with the native vegetation community in adjacent areas of the Ben Bullen State Forest”	MOP reviewed by the auditors	Compliant
	The Plan requires more detail relating to weed management. This should include specific actions to target specific weeds including the appropriate time of year to implement actions.	7.7. in MOP includes weed management controls	Compliant
	The Plan requires further consideration of the final landform, particularly given that the volume of fill for closure is not known as the potential for generating this material from future mining has not be ascertained.	MOP reviewed by the auditors	Compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
DA 3-28	BBC to maintain the website to ensure that coal transport records are up to date and publically available in accordance with the requirements of this condition.	Coal transport records updated until coal ceased being transported from the site in April 2012.	Compliant
DA 5-1	It is recommended that the EMS documentation be reviewed and that the generic XCN documentation within the EMS be updated and made site specific.	EMS reviewed by the auditors	Compliant
	BBC to appoint a nominate a suitable qualified person to be responsible for managing the requirements of the EMS	Environmental and Community Officer responsible for EMS	Compliant
	BBC EMS records management process requires review to improve the sorting and efficiency of accessing compliance records.	Compliance records reviewed by the auditors	Compliant
	Update Section 7.2 of the EMS to include reference to any relevant procedures, forms, records used in response to non-compliance.	Work order inspection sheets are specified in 7.2	Compliant
	Develop and maintain an environmental legislative compliance register for the site.	Compliance Register reviewed by the auditors	Compliant
DA 5-2	The following plans are required to be established and implemented on-site in accordance with the consent conditions:	Noted	
	<ul style="list-style-type: none"> • Water Management Plan, including: <ul style="list-style-type: none"> - Site Water Balance - Sediment Erosion Control Plan - Surface Water Monitoring Plan - Surface and Ground Water Response Plan 	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012.	Compliant
	It is recommended that BBC finalise and submit the Water Management Plan and all associated sub-plans to ensure ongoing compliance with water quality criteria and to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant
DA 5-5	Recent changes to legislation to take effect on 6 February 2012 will require incidents to be reported immediately to relevant agencies (including NSW OEH).	Has been updated in management plans	Compliant
	It is recommended that BBC review their current management plans and update the requirements for reporting incidents in accordance with the requirements of the NSW Protection of the Environment Operations (POEO) Act and other relevant requirements.	Has been updated in management plans	Compliant
	Monitoring data to be made available on a regular basis and not just as part of Annual Environmental Management Reports.	EPL monitoring is available on the Baal Bone website and is updated monthly	Compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
DA 5-6	Quarterly environmental performance reviews should be completed and posted on the website in accordance with the reporting requirements set out in Section 5.0 Reporting of the AQMP.	Reviewed by the auditors	Compliant
	Other relevant environmental monitoring data such as water quality and flora and fauna monitoring could also be reported quarterly.	Reviewed by the auditors	Compliant
DA 5-9	All approved plans be published and made publically accessible on the Baal Bone Website in accordance with the requirements of this condition. All plans online are to be the most up to date version and contain up to date information.	All approved plans are available on Baal Bone's website. Water Management Plans are interim and therefore not required to be published however it is recommended a copy be kept online in the interim.	Compliant
	It is recommended that complaints data is made available on the website.	Complaints Register is updated quarterly and posted on the website	Compliant
SOC 5	BBC to consider (given the cessation of mining it may not be relevant) implementation of the monitoring requirements as required by and described in the relevant management plans (i.e. Underground Water Make Monitoring Program)	Reviewed by the auditors	Compliant
SOC 17	Refer to DA Condition 3-25 for recommendations relating to Rehabilitation.	Noted	
	In order to comply with this condition the RMP would need to include details on minimizing the adverse socio-economic effects associated with the conclusion of Baal Bone, including reduction in local and regional employment levels.	Now included in RMP/MOP	Compliant
SOC 31	Incorporate Capertee Stringybark into existing and proposed rehabilitation works.	Has not been incorporated , site plans to incorporate in future tree seed mixes	Not triggered
EPL765 L1.1	All pipelines should be inspected and maintained to ensure that there are no unlicensed discharges to the environment.	Weekly work inspections are conducted and are ongoing	Compliant
	While Electrical Conductivity (EC) is not a current licence criteria, other mines in the area have entered into correspondence with the EPA on this issue and how EC can be reduced. It is recommended that BBC also consider if this is an issue that affects BBC and how this issue may be addressed in the future if required. It is recommended that BBC conduct metals analysis of discharge water to identify if discharges are within acceptable levels for metals as defined by relevant water quality criteria.	EC is used to measure discharge waters and metals analysis is conducted monthly	Compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
	It is noted that BBC reported that it is now scheduled to have water sampling undertaken at North and South bores on an annual basis as per BBC Water Licences.	Noted by the auditors	Compliant
EPL765 L3.3	Refer to recommendations made under L1.1.	Noted	
EPL765 M2.1	It is recommended that sampling to be carried out immediately downstream of the pipe outlet below the spillway of the Overshot Dam as required by the EPL at all times, not just when the dam is overflowing.	The EPL stipulates that Point 11 (Overshot Dam Discharge) is to be monitored when it is discharging, not at all times. The current sampling regime is correct.	Compliant
	Consideration should be given to sampling discharge point 12 during wet weather conditions as many episodic (ephemeral) creeks in the region run dry rapidly after rainfall.	Noted by the auditors	Compliant
CCL749 1	Ensure for any future lease renewals, that this condition is complied with and records kept.	Not in the audit period	Not triggered
CCL749 7	The Director-General and to approve of outstanding plans and ensure the detail is provided for adequate rehabilitation works to be completed.	MOP is approved	Compliant
CCL749 11	Review and update the reporting schedule to ensure that all relevant submissions and monitoring requirements are identified and tracked to ensure ongoing compliance with the conditions of this CCL.	Noted by the auditors	Compliant
CCL749 18	Operations must be completed in a manner that prevents pollution outside of that allowed for in the site the EPL. It is recommended that BBC review its current water quality management plans and current controls, including those relating to total iron reduction in mine waters prior to discharge and regular planned pipeline inspections.	WMP and associated subplans still in draft	Not triggered
DA 3-1	BLMP to be finalised with OEH/EPA and include detail regarding: Threatened species or populations, endangered ecological communities and the relative current and future impact monitoring.	Reviewed by the auditors	Compliant
DA 3-7	Refer to Schedule 3-Condition 5.	Noted	

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
DA 3-9	It is recommended that BBC review and revise the Energy Efficiency Review Workshop Report (2010) in order to identify and manage sources of greenhouse gas emission from the site relating to its 'care and maintenance' operations. This could include the establishment and implementation of an Energy Saving Action Plan.	Noted by the auditors, no longer considered relevant due to suspension of operations reducing greenhouse output considerably and significantly reducing the ability to reduce GG generation as most of the major sources for GG no longer factor in the site emissions.	Compliant
DA 3-31	Ensure that the waste register is updated weekly as required by section 4.1 Monitoring and Inspection of the Waste Management Plan.	Monthly waste is reported	Compliant
DA 4-1	Ensure Quarterly noise monitoring results are provided to NSW DP&I and landowners, by January 2012. BBC indicated that these were sent on 31 January, however were not sighted by URS.	These documents are available on the Baal Bone website and are up to date as of the November 2013 report.	Compliant
DA 5-4	Plans to be modified following non-compliance events to incorporate the measures required to address the underlying issues which lead to the non-compliance.	Reviewed by the auditors	Compliant
SOC 16	The Director-General to approve of outstanding plans and ensure the detail is provided for adequate rehabilitation works to be completed.	Noted	
	Refer also to recommendations under DA Condition 3-25.	Noted	
SOC 29	It is recommended that monitoring and management of quadrats in the vicinity of Longwalls 29 and 31 and Coxs River Swamp in accordance with the Environmental Monitoring Program contained within the SMP is continued to ensure potential impacts of mining are monitored. The duration of monitoring should be agreed between BBC and DTRIS-DRE.	No impacts to flora and fauna identified. Monitoring is now completed.	Compliant
EPL765 M5.2	That BBC publish the Community Complaints and Enquiries hotline on the BBC website.	Reviewed by the auditors	Compliant
CCL749 2	It is recommended that BBC finalizes and submits all required management plans under the CCL749 and PA09-0178. All plans are to be reviewed and updated to ensure they reflect current and planned operating conditions. All plans should be fully implemented as required.	Reviewed by the auditors	Compliant
CCL749 32	It is recommended that BBC finalise and submit the Water Management Plan and all associated sub-plans to ensure ongoing compliance with water quality criteria and to meet the intent of the requirements of this condition.	Water management plans are still interim and yet to be approved. Action table states it would be submitted by September 2012, submitted in October 2012.	Non-compliant

Reference	Requirement	Evidence	Audit Finding
Independent Environment Audit (2012)			
Waste Management	It is recommended that BBC consider alternative arrangements for these wastes into approved landfill facilities or provide more robust management practices of waste disposal in the REA, wastes being controlled with cover, and location details kept so as waste dumps within the REA can be found again.	Noted	
EMS	Address issues outlined in Section 6.3 of this report, specifically ensuring that the Environmental Management System site specific and of a nature that is implementable at a site level.	Reviewed by the auditors	Compliant
Subsidence Monitoring	It is recommended that the Subsidence and Environmental Monitoring Programs continue and that agreement is reached with DTIRIS-DRE as to when monitoring may be stopped or if other actions are warranted. Potentially third party assessment that no remaining impacts (i.e. loss of water across the longwall panel) exist would assist in these discussions.	Noted by the auditors	Compliant
Groundwater Monitoring	It is recommended that BBC continue monitoring the groundwater levels in the monitoring bores, to further understand longer term impacts on the groundwater levels in BBP1-6 and confirm that no ongoing impacts on the swamps emerge. The duration of the monitoring to continue should be developed in consultation with DTIRIS-DRE.	Noted by the auditors	Compliant
Swamp Ecology Monitoring	It is recommended that BBC continue to monitor hydrology in the swamps and flora and fauna monitoring as is currently being conducted. The duration of the monitoring to continue should be developed in consultation with DTIRIS-DRE.	Noted by the auditors. Routine Flora and Fauna Monitoring ceased in 2011	Compliant
Rehabilitation	Following the review of rehabilitation documents and the site inspection URS have made recommendations with respect to rehabilitation outlined in Section 8.4.	Noted by the auditors	Compliant