

# Independent Environmental Audit Tomingley Gold Operations

transport | community | mining | industrial | food & beverage | energy



**Prepared for:**

Tomingley Gold Operations Pty Ltd

**Client representative:**

Mark Williams

**Date:**

27 August 2018  
Rev01

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- Appendix A: Site Photographs
- Appendix B: Letter to and response from DoI - Water
- Appendix C: Compliance Registers

Prepared by: **Jade Garth** Date: 27 August 2018

Reviewed by: **Ken Holmes** Date: 27 August 2018

Authorised by: **Ken Holmes** Date: 27 August 2018

### Revision History

Rev No.	Description	Prepared by	Reviewed by	Authorised by	Date
A	Draft report (internal)	J. Garth	K. Holmes	K. Holmes	12/04/2018
00	Draft report (client)	J. Garth	K. Holmes	K. Holmes	12/06/2018
01	Final Report	J. Garth	K. Holmes	K. Holmes	27/08/2018

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## Executive Summary

**Pitt&sherry** was engaged by Tomingley Gold Operations Pty Ltd, to conduct an Independent Environmental Audit (IEA) of the Tomingley Gold mine located approximately 50 kilometres' south-west of Dubbo in Central West New South Wales (NSW). The audit comprised a site inspection on Thursday the 8<sup>th</sup> of March 2018, document review, interviews with personnel, consultation with government agencies and reporting of the findings. The audit was undertaken to meet the brief outlined in the **Pitt&sherry** Proposal (dated 4 November 2018). As such, the audit provides an assessment of the environmental performance of the project by way of compliance with the requirements and conditions of the following regulatory approvals and provides recommendations to improve the environmental performance of the project.

- Project Approval (09\_0155)
- Statement of Commitments
- Environmental Protection Licence (EPL) No.20169
- Mining Lease No. 1684
- Water Approval No. WAL20270.

The IEA was required in accordance with Schedule 5, condition 8 of the Project Approval (09\_0155) – MOD 3 for the mine. In line with this, an independent external environmental audit was to be undertaken one year after mining operations commence, and every 3 years thereafter. This is the second three yearly IEA to be conducted at the site.

The site inspection and interviews identified some issues that need to be addressed and these are outlined in the compliance section of this audit report (Table 4) as well as summarised below.


Non-compliances identified in the previous audit have been satisfactorily addressed by the auditee. In general, operational environmental management activities observed during the site inspection were being carried out in a competent manner, with very few non-compliances identified by the Auditor. Those non-compliances and observations that were observed are detailed in the body of this report. It is noted that a large majority of these non-compliances are administrative non-compliances relating to documentation.

During this audit, most information requested by the Auditor was made available for review.

During the site inspection, opportunities for improvement were identified in the following areas:

- Dangerous Goods / Waste storage.

## Auditor Certification

Independent Audit Certification Form	
Development Name	Tomingley Gold Operations
Development Consent No.	Project Approval (09_0155)
Description of Development	Gold Mine
Development Address	Tomingley West Road, Tomingley NSW 2869
Proponent	Tomingley Gold Operations Pty Ltd
Independent Audit	
Title of Audit	Tomingley Gold Operations Independent Environmental Audit
<p><i>I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:</i></p> <ul style="list-style-type: none"> <li><i>The audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the auditing standard AS/NZS ISO 19011:2011 and Post Approval Guidelines – Independent Audits</i></li> <li><i>The findings of the audit are reported truthfully, accurately and completely;</i></li> <li><i>I have exercised due diligence and professional judgement in conducting the audit;</i></li> <li><i>I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit;</i></li> <li><i>I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the audit, spouse, partner, sibling, parent, or child;</i></li> <li><i>I do not have any pecuniary interest in the audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family);</i></li> <li><i>Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and</i></li> <li><i>I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.</i></li> </ul> <p><i>Note.</i></p> <p><i>a) The Independent Audit is an ‘environmental audit’ for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p><i>b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Signature	
Name of Lead/Principal Auditor	Ken Holmes
Address	4 Baeckea Place, Frenchs Forest, NSW
Email Address	kholmes@pittsh.com.au
Auditor Certification (if relevant)	Exemplar Global 14065
Date	27 August 2018

## 1. Introduction

**Pitt&sherry** was engaged by Tomingley Gold Operations Pty Ltd, to conduct an Independent Environmental Audit (IEA) of the Tomingley Gold mine located approximately 50 kilometres' south-west of Dubbo in Central West New South Wales (NSW). The IEA was required in accordance with Schedule 5, condition 8 of the Project Approval (09\_0155) – MOD 3 for the mine. In line with this, an independent external environmental audit was to be undertaken one year after mining operations commence, and every 3 years thereafter. This is the second three yearly IEA to be conducted at the site. This IEA report details the audit process, presents the audit findings and provides recommendations that if implemented will facilitate improved compliance with environmental approvals.

### 1.1 Tomingley Gold Operations

Tomingley Gold Operations Pty Ltd operates the gold mine, a wholly owned subsidiary of Alkane Resources Ltd. Tomingley gold mine was commissioned in January 2014 and officially opened in March of that same year. The design capacity of 1Mtpa was reached in late May 2014.

The operations are based on four gold deposits – Wyoming One, Wyoming Three, Caloma and Caloma Two. Open cut mining activities have been underway since commissioning, with the Wyoming Three pit completed in late 2015 and the Caloma Two pit commencing operations in late 2016. Open cut operations are expected to cease in 2018. The mine produces 50,000 to 70,000 ounces of gold poured per year.

## 1.2 Audit Summary

Audit Title:	Tomingley Gold Operations Independent Environmental Audit
Site:	Tomingley West Road, Tomingley NSW 2869
Client Contact:	Mark Williams
Position:	Environment and Community Manager
Client:	Tomingley Gold Operations Pty Ltd
Client Address:	89 Burswood Road, Burswood WA 6100
Mine Address:	Tomingley West Road, Tomingley NSW 2869
Client Telephone:	02 6867 9780
Client Email:	<a href="mailto:mwilliams@alkane.com.au">mwilliams@alkane.com.au</a>
Audit Team:	Ken Holmes – Certified Lead Auditor Jade Garth – Certified Principal Auditor
Auditor's Telephone:	0438 046 261
Auditor's Fax:	(02) 8008 1600
Date of Site Visit	8 March 2018
Audit Scope:	<p>The audit was undertaken to meet the brief outlined in the <b>pitt&amp;sherry</b> Proposal (dated 4 November 2018). As such, the audit provides an assessment of the environmental performance of the project by way of compliance with the requirements and conditions of the following regulatory approvals and provides recommendations to improve the environmental performance of the project.</p> <ul style="list-style-type: none"> <li>• Project Approval (09_0155)</li> <li>• Statement of Commitments</li> <li>• Environmental Protection Licence (EPL) No.20169</li> <li>• Mining Lease No. 1684</li> <li>• Water Approval No. WAL20270.</li> </ul>

## 2. Audit Process

The audit process and methodology are described in this section, and comprised the following key undertakings:

- Preliminary planning activities
- Review of information and preparation of a compliance register (audit protocol / checklist)
- Correspondence with relevant stakeholders including authorities
- Site inspection and interviews:
  - Opening meeting
  - Site inspection
  - Review of relevant records
- Review of additional information provided after the site inspection
- Preparation of this audit report.

### 2.1 Preliminary Activities

Off-site planning for the site audit comprised:

- Initial discussions with Mark Williams, Tomingley Gold Operations Pty Ltd Environment and Community Manager to organise the site inspection
- Develop the audit protocol / compliance checklist
- Submission of a preliminary document / record request.

#### 2.1.1 Consultation with Relevant Agencies

In accordance with Schedule 5, Condition 8 of the Project Approval, **pitt&sherry** consulted with the following agencies prior to the site audit:

- Department of Planning and Environment NSW
- Environment Protection Authority (EPA)
- Department of Primary Industries (DoI)
- Narromine Shire Council (NSC).

A letter was sent to each of the above agencies advising them of the upcoming audit, the scope of the audit and invited written comments regarding TGO's compliance status and whether there were any specific environmental issues they required the audit to target.

**Pitt&sherry** received comment from the Department of Industry – Water. The letter sent to the Department of Industry and their response letter is attached as Appendix B and **pitt&sherry's** response to their request is outlined in Appendix C – Compliance Registers. In summary, DoI Water requested that the audit consider compliance with the relevant water licensing requirements for the mining operation, specifically:

- Assessment as to whether the project holds the required water entitlements and licences under the Water Management Act 2000 or Water Act 1912 (as applicable);
- Compliance with the conditions of any water licences/approvals held
- Identification of all water storages for the mine and identification of their licensing status being either exempt, subject to harvestable rights or regulated via a Water Access Licence

- Quantification of both active and passive take by the project from each relevant water source and a comparison against previous predictions.

**Pitt&sherry** did not receive a response from NSC, DP&E or the EPA.

## 2.2 Information Review and Compliance Register

Prior to the site inspection, **pitt&sherry** developed a compliance register which formed both the audit checklist used during the site inspection and is the compliance register presented in the Appendices of this report. The compliance register specifies the conditions within the Modified Project Approval (09\_0155\_MOD3), Statement of Commitments, Environmental Protection Licence (EPL) No. 20169, Mining Lease No.1684 and Water Approval No. WAL20270.

## 2.3 Site Audit

The audit team conducted the site inspection component of the Tomingley Gold Operations audit on Thursday 8<sup>th</sup> March 2018.

### 2.3.1 Opening meeting

The opening meeting was held on-site at the Tomingley Gold Operations Mine, Tomingley. It was attended by Mark Williams (Environment and Community Manager), Cameron Hope (Environmental Officer) as well as the audit team comprising Ken Holmes (Lead Auditor) and Jade Garth (Principal Auditor). Introductions were made and the purpose and scope of the audit was outlined. An explanation of the audit process was communicated. That is, a site inspection, site interviews and review of records to identify compliance with the approval conditions relevant to the current operations at the site.

### 2.3.2 Site Inspection

A general tour of the site was attended by Cameron Hope and the audit team, Ken Holmes and Jade Garth. This included observation of the haul roads, active open cut mining pits, various compounds, residue storage facility, sediment dams, clean water diversion systems, dirty water separation levee, biodiversity offset areas, amenity bunds, waste rock emplacements, processing facility, waste storage and ERSED controls. Some site photographs are reproduced in **Appendix A** of this report.

### 2.3.3 Site Interviews

Audit interviews were conducted with the following staff members during the site component of the audit on 8 March 2018:

- Mark Williams – Environment and Community Manager
- Cameron Hope –Environmental Officer.

### 2.3.4 Document review

Compliance related documents that were not available during the site component of the audit were requested to be provided following the audit. Mark Williams and Cameron Hope assisted with the provision of documentation following the audit. It was noted that some information was not available for review or did not exist. Where this occurred, and compliance with a condition was not able to be verified, this was identified in the audit findings. The key documents reviewed during this audit are listed in the Compliance Registers.



## 2.4 Reporting

The compliance register was completed using notes and observations recorded during the site inspection / interviews and review of appropriate TGO documentation. The completed compliance registers are presented in **Appendix C**. A summary of the non-compliances identified during this audit are provided in Table 4.

### 2.4.1 Audit Criteria

The audit criteria used to determine compliance for this audit is based on the definitions presented in Table 1.

Table 1 Compliance assessment criteria

Assessment	Criteria
<b>Compliant</b>	<p><b>Compliance</b></p> <p>The site complies with the requirements of applicable regulatory instruments (DA/Licence/Permit) &amp; associated environmental requirements.</p> <p>A judgment made by an auditor that the activities undertaken and the results achieved fulfil the specified requirements of the audit criteria. While further improvements may still be possible, the minimum requirements are being met.</p>
<b>Not Compliant</b>	<p><b>Non-Compliance</b></p> <p>Clear evidence has been collected to demonstrate the requirement has not been complied with and is within the scope of the audit.</p> <p>Site displays little or no evidence of compliance with the requirements of the regulatory documentation.</p>
<b>Observation</b>	<p><b>Observation (Minor non-compliance)</b></p> <p>Evidence of controls being partially in place, but with some gaps evident.</p> <p>* May have an understanding of requirement but cannot verify its implementation.</p>
<b>Not Verified</b>	<p>Where the auditor has not been able to collect sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the audit. In the absence of sufficient verification, the auditor may in some instances be able to verify by other means (visual inspection, personal communication, etc.) that a requirement has been met. In such a situation, the requirement should still be assessed as not verified. However, the auditor could note in the report that they have no reason to believe that the operation is non-compliant with that requirement.</p>
<b>Not Triggered</b>	<p><b>Not Triggered</b></p> <p>The respective condition / requirement was not activated within the scope of the audit.</p>
<b>Noted</b>	<p>A statement or fact, where no assessment of compliance is required.</p>

Risk levels for any non-compliances were identified consistent with Table 2.

Table 2 Risk levels for non-compliances

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

### 3. Statutory Compliance & Recommendations

The environmental performance of the Tomingley Gold Operations has been reviewed by assessing compliance against the Project Approval (09\_0155), Statement of Commitments, Mining Lease No. 1684, Environmental Protection Licence (EPL) No. 20169 and Water Approval No. WAL20270. Compliance Registers presented in **Appendix C** provide a detailed review of the compliance status of the site, including recommendations to address non-conformances.

#### 3.1 Summary of Compliance Status

A summary of compliance with statutory requirements is provided in Table 3.

Table 3 Summary of Statutory Compliance

Approval/ Licence	No. of Conditions	Compliant	Not Compliant	Observation	Noted	Not Triggered	Not Verified
<b>Project Approval (09_0155)</b>	205	140	31	8	13	12	1
<b>Statement of Commitments</b>	70	60	3	0	2	4	1
<b>EPL No. 20169</b>	79	54	8	1	8	8	0
<b>Mining Lease No. 1684</b>	39	23	1	0	2	13	0
<b>Water Approval No. WAL20270</b>	15	7	0	0	4	3	1
<b>TOTAL</b>	408	284	43	9	29	40	3

### 3.2 Non-Compliances and Observations

Observations and Non-compliances identified during the site inspection, interviews and document reviews are recorded in detail in the Compliance Registers in **Appendix C** and are summarised in Table 4. Recommendations have been made to address all identified Non-Compliances and Observations. Please note that Table 4 excludes conditions that could not be verified as compliant during this IEA.

Table 4 Non-Compliances and Recommendations

#	Condition	Requirement	Recommendation	Risk Level																																																																	
<b>Project Approval 09_0155</b>																																																																					
NC1	Sch. 3 Cond.3	<p><b>Noise Criteria</b></p> <p>Until 30 June 2019, unless agreed otherwise by the Secretary, the Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 2 at any residence on privately-owned land (except for residences on the land identified in Table 1).</p> <table border="1"> <caption>Table 2: Noise Criteria dB(A)</caption> <thead> <tr> <th>Noise Assessment Group</th> <th>Receivers</th> <th>Day (LAeq(15-minute))</th> <th>Evening (LAeq(15-minute))</th> <th>Night (LAeq(15-minute))</th> </tr> </thead> <tbody> <tr> <td rowspan="3">NAG A</td> <td>R1, R4, R6</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td>R5</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>All other receivers</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>NAG B</td> <td>All receivers</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td rowspan="6">NAG C</td> <td>R3</td> <td>49</td> <td>40</td> <td>45</td> </tr> <tr> <td>R27</td> <td>46</td> <td>38</td> <td>45</td> </tr> <tr> <td>R28</td> <td>46</td> <td>39</td> <td>45</td> </tr> <tr> <td>R29</td> <td>48</td> <td>40</td> <td>45</td> </tr> <tr> <td>R33</td> <td>46</td> <td>39</td> <td>45</td> </tr> <tr> <td>R41</td> <td>46</td> <td>38</td> <td>45</td> </tr> <tr> <td rowspan="3">NAG D</td> <td>All other receivers</td> <td>46</td> <td>37</td> <td>45</td> </tr> <tr> <td>R23, R32</td> <td>43</td> <td>39</td> <td>46</td> </tr> <tr> <td>All receivers</td> <td>43</td> <td>38</td> <td>46</td> </tr> <tr> <td>All other residential receivers</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	Noise Assessment Group	Receivers	Day (LAeq(15-minute))	Evening (LAeq(15-minute))	Night (LAeq(15-minute))	NAG A	R1, R4, R6	36	36	45	R5	37	37	45	All other receivers	35	35	45	NAG B	All receivers	36	36	45	NAG C	R3	49	40	45	R27	46	38	45	R28	46	39	45	R29	48	40	45	R33	46	39	45	R41	46	38	45	NAG D	All other receivers	46	37	45	R23, R32	43	39	46	All receivers	43	38	46	All other residential receivers	35	35	45	TGO have investigated the exceedances and implemented mitigation measures. There are no further recommendations.	<b>Low</b>
Noise Assessment Group	Receivers	Day (LAeq(15-minute))	Evening (LAeq(15-minute))	Night (LAeq(15-minute))																																																																	
NAG A	R1, R4, R6	36	36	45																																																																	
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O1	Sch. 3 Cond.4	<p><b>Operating Hours</b></p> <p>The Proponent shall comply with the operating hours in Table 3.</p> <table border="1"> <caption>Table 3: Operating hours</caption> <thead> <tr> <th>Activity</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>Vegetation clearing and topsoil stripping</td> <td>6am-6pm, 7 days per week</td> </tr> <tr> <td>Construction</td> <td>24 hours, 7 days per week</td> </tr> <tr> <td>Mining, maintenance and processing operations</td> <td>24 hours, 7 days per week</td> </tr> <tr> <td>Rehabilitation</td> <td>7am-10pm, 7 days per week</td> </tr> </tbody> </table>	Activity	Operating Hours	Vegetation clearing and topsoil stripping	6am-6pm, 7 days per week	Construction	24 hours, 7 days per week	Mining, maintenance and processing operations	24 hours, 7 days per week	Rehabilitation	7am-10pm, 7 days per week	It is recommended that Table 5 within the NMP is updated to include operating hours for rehabilitation activities.	<b>Administrative Noncompliance</b>																																																							
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Vegetation clearing and topsoil stripping	6am-6pm, 7 days per week																																																																				
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Rehabilitation	7am-10pm, 7 days per week																																																																				
O2	Sch. 3 Cond.5e	<p>The Proponent shall:</p> <p>e) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply.</p>	It is recommended that TGO retain records from the weekly meetings that demonstrate that TGO have acted on weather conditions.	<b>Administrative Noncompliance</b>																																																																	
NC2	Sch. 3 Cond.5f	<p>The Proponent shall:</p> <p>f) report on these investigations and the implementation and effectiveness of these measures in the Annual Review, to the satisfaction of the Secretary.</p>	It is recommended that the Annual Review include a section on the effectiveness of noise mitigation measures.	<b>Administrative Noncompliance</b>																																																																	

#	Condition	Requirement	Recommendation	Risk Level																
NC3	Sch. 3 Cond.6a	<p><b>Noise Management Plan</b></p> <p>The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. The plan must:</p> <p>A) be prepared in consultation with the EPA and Council, and submitted to the Secretary for approval by the end of January 2013, unless the Secretary agrees otherwise.</p>	It is recommended that the consultation that occurred with the EPA, Council and DP&E are attached as an appendix to the NMP for future reference. Any comments provided should also be addressed.	Administrative Noncompliance																
NC4	Sch. 3 Cond.6b	<p><b>Noise Management Plan</b></p> <p>The plan must:</p> <p>b) describe the measures that would be implemented to ensure compliance with conditions 3-5 of this schedule, including a trigger action response plan based on noise complaints, real time and attended noise monitoring;</p>	It is recommended that noise exceedances are investigated at the time of the exceedance. In future, those undertaking the attended noise monitoring must contact the Mine Supervisor as soon as they observe the exceedance, in this case, TGO should ensure the external noise monitoring consultant is aware of their obligations.	Low																
NC5	Sch. 3 Cond.7	<p><b>Blasting Criteria</b></p> <p>The Proponent shall ensure that blasting on the site does not cause exceedances of the criteria in Table 4.</p> <table border="1"> <caption>Table 4: Blasting Criteria</caption> <thead> <tr> <th>Location</th> <th>Airblast Overpressure (dB(Lin Peak))</th> <th>Ground Vibration (mm/s)</th> <th>Allowable Exceedance</th> </tr> </thead> <tbody> <tr> <td>Residence on privately-owned land</td> <td>120</td> <td>10</td> <td>0%</td> </tr> <tr> <td></td> <td>115</td> <td>5</td> <td>5% of total blasts over any 12 month period</td> </tr> <tr> <td>All public infrastructure</td> <td>-</td> <td>50, or alternatively, a specific limit determined to the satisfaction of the Secretary by the structural design methodology in AS 2187.2-2006, or its latest version</td> <td>0%</td> </tr> </tbody> </table> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner, and has advised the Department in writing of the terms of this agreement.</p>	Location	Airblast Overpressure (dB(Lin Peak))	Ground Vibration (mm/s)	Allowable Exceedance	Residence on privately-owned land	120	10	0%		115	5	5% of total blasts over any 12 month period	All public infrastructure	-	50, or alternatively, a specific limit determined to the satisfaction of the Secretary by the structural design methodology in AS 2187.2-2006, or its latest version	0%	<p>There is no further recommendation:</p> <p>TGO investigated the causes of the overpressure exceedances and implemented remedial measures as required.</p>	Low
Location	Airblast Overpressure (dB(Lin Peak))	Ground Vibration (mm/s)	Allowable Exceedance																	
Residence on privately-owned land	120	10	0%																	
	115	5	5% of total blasts over any 12 month period																	
All public infrastructure	-	50, or alternatively, a specific limit determined to the satisfaction of the Secretary by the structural design methodology in AS 2187.2-2006, or its latest version	0%																	

#	Condition	Requirement	Recommendation	Risk Level																							
NC6	Sch. 3 Cond.13c	<p><b>Operating Conditions</b></p> <p>During operation of the project, the Proponent shall:</p> <p>c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Secretary.</p>	<p>It is recommended that section 8.1.1 of the BLMP is updated to reflect the blast notification system now used on site.</p> <p>Seek the agreement of the Secretary for the proposed change in the notification process. Note that the previously agreed notification process must be maintained until the Secretary's approval of the change is received.</p>	Administrative Noncompliance																							
NC7	Sch. 3 Cond.17	<p><b>Air Quality Criteria</b></p> <p>The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the criteria listed in Tables 5, 6 or 7 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p> <p><i>Table 5: Long term impact assessment criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th><sup>d</sup> Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td><sup>a</sup> 90 µg/m<sup>3</sup></td> </tr> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>Annual</td> <td><sup>a</sup> 30 µg/m<sup>3</sup></td> </tr> </tbody> </table> <p><i>Table 6: Short term impact assessment criterion for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th><sup>d</sup> Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>24 hour</td> <td><sup>a</sup> 50 µg/m<sup>3</sup></td> </tr> </tbody> </table> <p><i>Table 7: Long term impact assessment criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td><sup>c</sup> Deposited dust</td> <td>Annual</td> <td><sup>b</sup> 2 g/m<sup>2</sup>/month</td> <td><sup>a, d</sup> 4 g/m<sup>2</sup>/month</td> </tr> </tbody> </table>	Pollutant	Averaging Period	<sup>d</sup> Criterion	Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>	Pollutant	Averaging Period	<sup>d</sup> Criterion	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>	Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level	<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a, d</sup> 4 g/m <sup>2</sup> /month	<p>TGO has investigated the causes of the air quality exceedances, implemented remedial measures as required and updated the Air Quality Management Plan including correspondence with DPE for review, therefore, there are no further recommendations.</p>	Low
Pollutant	Averaging Period	<sup>d</sup> Criterion																									
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NC8	Sch. 3 Cond.20	<p><b>Meteorological Monitoring</b></p> <p>For the life of the project, the Proponent shall ensure that there is a suitable meteorological station operating in the vicinity of the site that:</p> <p>a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and</p> <p>b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, unless a suitable alternative is approved by the Secretary following consultation with the EPA.</p>	<p>It is recommended that TGO:</p> <ol style="list-style-type: none"> <li>Contact the EPA until a response to the request for agreement with the change in monitoring is received.</li> <li>Write to the DP&amp;E seeking exemption for item b of this condition.</li> </ol>	Administrative Noncompliance																							

#	Condition	Requirement	Recommendation	Risk Level
NC9	Sch. 3 Cond.23	<b>Water Discharges</b> The Proponent shall ensure that all surface water discharges from the site comply with: <ul style="list-style-type: none"> <li>a) section 120 of the POEO Act; or</li> <li>b) the discharge limits (both volume and quality) set for the project in any applicable EPL.</li> </ul>	It is recommended that TGO consider discussing with the EPA an amendment to the EPL that takes into account very high intensity rainfall event that result in the site dirty water dam capacities being exceeded.	Medium
NC10	Sch. 3 Cond.27	<b>Water Performance Measures</b> The Proponent shall comply with the performance measures in Table 8 (refer to findings table) to the satisfaction of the Secretary.	Refer to the recommendation for PA schedule 3 condition 23 above.	Medium
NC11	Sch. 3 Cond.32	<b>Water Management Plan</b> The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with the EPA and DPI Water, by a suitably qualified and experienced person(s) whose appointment has been approved by the Secretary, and submitted to the Secretary for approval by the end of January 2013, unless the Secretary agrees otherwise.	It is recommended that Consultation with agencies is attached as an appendix to the WMP. A table of any comments received from the agencies and how TGO has addressed these comments in the update of the WMP should be provided in each management plan.  It is recommended that TGO again request approval from the Secretary.	Administrative Noncompliance
NC12	Sch. 3 Cond.32b (iii)	<b>Water Management Plan</b> This plan must include: <ul style="list-style-type: none"> <li>b) a Surface Water Management Plan that includes:               <ul style="list-style-type: none"> <li>iii. detailed plans, including design objectives and performance criteria, for:                   <ul style="list-style-type: none"> <li>• design and management of the final voids;</li> <li>• design and management of water storages including the residue storage facility and</li> <li>• process water dams; and</li> <li>• control of any potential water pollution from the rehabilitated areas of the site.</li> </ul> </li> </ul> </li> </ul>	It is recommended that the SWMP is updated to include performance criteria for the design and management of final voids and the control of water pollution from rehabilitated areas of the site.	Low

#	Condition	Requirement	Recommendation	Risk Level																					
NC13	Sch. 3 Cond.32b (iv)	<p><b>Water Management Plan</b></p> <p>This plan must include:</p> <p>b) a Surface Water Management Plan that includes:</p> <p>iv. a program to monitor:</p> <ul style="list-style-type: none"> <li>the effectiveness of the water management system;</li> <li>potential leakage or spillage from on-site pipelines</li> <li>surface water flows and quality, stream health and channel stability in Gundong Creek (in so far as it could potentially be affected by the project).</li> </ul>	It is recommended that the SWMP is updated to address the requirements of this condition.	Low																					
NC14	Sch. 3 Cond.32b (v)	<p><b>Water Management Plan</b></p> <p>This plan must include:</p> <p>b) a Surface Water Management Plan that includes:</p> <p>v. a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project; and</p>	It is recommended that the SWMP is updated to include a plan to mitigate and/or offset any adverse surface water impacts of the project.	Low																					
NC15	Sch. 3 Cond.33	<p><b>Biodiversity Offset</b></p> <p>The Proponent shall implement the offset strategy outlined in Table 9, and shown in Appendix 5, to the satisfaction of the Secretary.</p> <p><small>Table 9: Biodiversity Offset</small></p> <table border="1"> <thead> <tr> <th>Community Type</th> <th>Offset Area to be Conserved (ha)</th> <th>Remnant Extension (Protection and Ameliorative Planting) (ha)</th> </tr> </thead> <tbody> <tr> <td>Inland Grey Box – Poplar Box – White Cypress Pine tall woodland on red loams (Benson 76)</td> <td>21.1</td> <td>21.5</td> </tr> <tr> <td>River Red Gum riverine woodland forest (Benson 78)</td> <td>13.1</td> <td>13.5</td> </tr> <tr> <td>Fuzzy Box – Inland Grey Box on alluvial brown loam soils (Benson 201)</td> <td>5.0</td> <td>26.0</td> </tr> <tr> <td>Poplar Box – Belah woodland on clay alluvial plains (Benson 56)</td> <td>1.9</td> <td>0</td> </tr> <tr> <td>Belah/ Black Oak Western Rosewood, Wilga Community (Benson 57)</td> <td>25.5</td> <td>0</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>66.6</b></td> <td><b>61.0</b></td> </tr> </tbody> </table>	Community Type	Offset Area to be Conserved (ha)	Remnant Extension (Protection and Ameliorative Planting) (ha)	Inland Grey Box – Poplar Box – White Cypress Pine tall woodland on red loams (Benson 76)	21.1	21.5	River Red Gum riverine woodland forest (Benson 78)	13.1	13.5	Fuzzy Box – Inland Grey Box on alluvial brown loam soils (Benson 201)	5.0	26.0	Poplar Box – Belah woodland on clay alluvial plains (Benson 56)	1.9	0	Belah/ Black Oak Western Rosewood, Wilga Community (Benson 57)	25.5	0	<b>TOTAL</b>	<b>66.6</b>	<b>61.0</b>	It is recommended that TGO remind the DPE to review and approve the PVP in writing.	Administrative Noncompliance
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O3	Sch. 3 Cond.35	<p><b>Pre-Clearing Surveys</b></p> <p>Prior to and during vegetation clearing, the Proponent shall engage a suitably qualified and/or experienced ecologist to confirm the presence of nesting/roosting species in areas to be affected by clearing activities.</p>	It is recommended that TGO fully implement the record (Clearing Permit) keeping requirements detailed in the BMP.	Medium																					



#	Condition	Requirement	Recommendation	Risk Level
NC16	Sch. 3 Cond.37a	<p><b>Biodiversity Management Plan</b></p> <p>The Proponent shall prepare a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> <li>a) be prepared in consultation with OEH, and submitted to the Secretary for approval by the end of January 2013, unless the Secretary agrees otherwise.</li> </ul>	It is recommended that TGO remind the DPE to review and approve the BMP in writing.	Administrative Noncompliance
NC17	Sch. 3 Cond.37c	<p><b>Biodiversity Management Plan</b></p> <p>This plan must:</p> <ul style="list-style-type: none"> <li>c) describe the short, medium, and long term measures that would be implemented to: <ul style="list-style-type: none"> <li>i. manage the remnant vegetation and habitat on the site and in the offset area/s (if and when applicable); and</li> <li>ii. implement the biodiversity offset strategy (if and when applicable), including detailed performance and completion criteria.</li> </ul> </li> </ul>	It is recommended that detailed completion criteria are included in the BMP.	Low
NC18	Sch. 3 Cond.37d	<p><b>Biodiversity Management Plan</b></p> <p>This plan must:</p> <ul style="list-style-type: none"> <li>d) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary).</li> </ul>	It is recommended that completion criteria for evaluating the performance of the biodiversity offset strategy is included in the BMP.	Low

#	Condition	Requirement	Recommendation	Risk Level
NC19	Sch. 3 Cond.37e (ii)	<p><b>Biodiversity Management Plan</b></p> <p>This plan must:</p> <ul style="list-style-type: none"> <li>e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:               <ul style="list-style-type: none"> <li>ii. restoring native vegetation and fauna habitat on the biodiversity areas and rehabilitation area through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary).</li> </ul> </li> </ul>	<p>It is recommended that the BMP is updated to include a description of procedures to be implemented for restoring native vegetation through focusing on: targeted vegetation establishment and the introduction of naturally scarce fauna habitat features.</p>	Low
NC20	Sch. 3 Cond.37e (iii)	<p><b>Biodiversity Management Plan</b></p> <p>This plan must:</p> <ul style="list-style-type: none"> <li>e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:               <ul style="list-style-type: none"> <li>iii. maximising the salvage of resources within the approved disturbance area - including vegetative, soil and cultural heritage resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area.</li> </ul> </li> </ul>	<p>It is recommended that the BMP is updated to include a description of procedures that have been implemented to maximise salvage of resources within the approved disturbance area for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area.</p>	Medium

#	Condition	Requirement	Recommendation	Risk Level
O4	Sch. 3 Cond.37f	<p><b>Biodiversity Management Plan</b></p> <p>This plan must:</p> <ul style="list-style-type: none"> <li>f) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria.</li> </ul>	<p>It is recommended that the BMP is updated to:</p> <ol style="list-style-type: none"> <li>1. note that the monitoring is 'seasonal annual' to better evidence compliance with this Condition.</li> <li>2. specifically state that a report is prepared that addresses the effectiveness of measures taken under the BMP and provides progress against the relevant performance and completion criteria.</li> </ol>	Administrative Noncompliance
NC21	Sch. 3 Cond.37e (ii)	<p><b>Heritage Management Plan</b></p> <p>This plan must:</p> <ul style="list-style-type: none"> <li>e) include the following for the management of non-Aboriginal heritage: <ul style="list-style-type: none"> <li>ii. a strategy for the storage of any heritage items salvaged on site, both during the project and in the long term.</li> </ul> </li> </ul>	<p>It is recommended that the Heritage Management Plan is revised to include a strategy for the storage of any heritage items salvaged on site, both during the project and in the long term.</p>	Low
O5	Sch. 3 Cond.47	<p><b>Final Hazard Analysis</b></p> <p>The Proponent shall prepare a Final Hazards Analysis (FHA) for the project to the satisfaction of the Secretary, in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis.</p> <p>Note: if the project design is no different from that assessed in the Preliminary Hazard Analysis (PHA), then the Secretary will accept the PHA as the FHA.</p>	<p>It is recommended that TGO submit the updated FHA by Sherpa Consulting to the DPE for approval.</p>	Administrative Noncompliance
NC22	Sch. 3 Cond.48c	<p><b>Hazardous Materials Management Plan</b></p> <p>The plan must:</p> <ul style="list-style-type: none"> <li>c) be submitted to the Secretary for approval prior to commencing mining operations.</li> </ul>	<p>It is recommended that TGO follow up with DPE for approval of the plan.</p>	Administrative Noncompliance

#	Condition	Requirement	Recommendation	Risk Level
O6	Sch. 3 Cond.49b	The Proponent shall: b) ensure that the waste generated by the project is appropriately stored, handled and disposed of.	It is recommended that used batteries are provided with a nominated location that is bunded. Ensure staff are aware of the disposal location for used batteries.  It is recommended that waste data is retained for all waste collection.	Low
NC23	Sch. 3 Cond.53l	<b>Rehabilitation Management Plan</b> This plan must: l) include consideration of options for backfilling the Caloma Two void.	It is recommended that the MOP includes reference to the consultation that took place in considering the option to backfill the Caloma Two void.	Administrative Noncompliance
NC24	Sch. 4 Cond.2c	Within two weeks of obtaining monitoring results showing: c) an exceedance of any relevant noise criteria in Schedule 3, the Proponent shall notify affected landowners and/ or tenants in writing of the exceedance, and provide regular monitoring results to each of these affected parties until the project is again complying with the relevant criteria.	It is recommended that for noise quality exceedances, TGO notify affected residences in writing in accordance with this condition.	Low
NC25	Sch. 4 Cond.2d	Within two weeks of obtaining monitoring results showing: d) an exceedance of any relevant air quality criteria in Schedule 3, the Proponent shall send the affected landowners and/or tenants a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time).	It is recommended that for air quality exceedances, TGO notify affected residences in writing in accordance with this condition.	Low
NC26	Sch. 5 Cond.1e(v)	<b>Environmental Management Strategy</b> This strategy must: e) describe the procedures that would be implemented to: v. respond to emergencies.	It is recommended that the EM Strategy is revised to include a section on 'Emergency Response' procedures or reference the Emergency Management Plan and where to locate it.	Administrative Noncompliance

#	Condition	Requirement	Recommendation	Risk Level
07	Sch. 5 Cond.3b	<p><b>Management Plan Requirements</b></p> <p>The Proponent shall ensure that the management plans include:</p> <ul style="list-style-type: none"> <li>b) a description of: <ul style="list-style-type: none"> <li>i. the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>ii. (ii) any relevant limits or performance measures/criteria;</li> <li>iii. (iii) 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.</li> </ul> </li> </ul>	See recommendation for Sch. 3 Cond.32b(iii).	Administrative Noncompliance
NC27	Sch. 5 Cond.3c	<p><b>Management Plan Requirements</b></p> <p>The Proponent shall ensure that the management plans include:</p> <ul style="list-style-type: none"> <li>e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible.</li> </ul>	It is recommended that the relevant Management Plans such as the AQGHGMP, BLMP and NMP should be modified to include specific actions to manage any unpredicted impacts and their consequences.	Low
NC28	Sch. 5 Cond.4d	<p><b>Annual Review</b></p> <p>This review must:</p> <ul style="list-style-type: none"> <li>d) identify any trends in the monitoring data over the life of the project.</li> </ul>	This condition is now being complied with and so there are no further recommendations.	Administrative Noncompliance
NC29	Sch. 5 Cond.4e	<p><b>Annual Review</b></p> <p>This review must:</p> <ul style="list-style-type: none"> <li>e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies.</li> </ul>	This condition is now being complied with and so there are no further recommendations.	Administrative Noncompliance

#	Condition	Requirement	Recommendation	Risk Level
NC30	Sch. 5 Cond.5	<p><b>Revision of Strategies, Plans and Programs</b></p> <p>Within three months of:</p> <ul style="list-style-type: none"> <li>a) the submission of an annual review under condition 4 above;</li> <li>b) the submission of an incident report under condition 7 below;</li> <li>c) the submission of an audit under condition 8 below; or</li> <li>d) any modification to the conditions of this approval (unless the conditions require otherwise), the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary.</li> </ul> <p>With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable conditions of this consent.</p>	<p>It is recommended that the Environmental Management Strategy is updated to include the requirements of this condition as a trigger to reviewing strategies, plans, and programs.</p> <p>It is recommended that the review section in the individual Management Plans is updated to include this requirement as a trigger for reviewing and if relevant revising Management Plans.</p> <p>It is recommended that the Revision Control Chart found at the start of every Management Plan is revised to include details of reviews as well as revisions including a comments section which could be used to note that a review was undertaken and no revision was found necessary.</p>	Administrative Noncompliance
NC31	Sch. 5 Cond.7	<p><b>Incident Reporting</b></p> <p>The Proponent shall notify the Secretary 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 seven days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident.</p>	<p>It is recommended that the PIRMP is updated to include reference to the DP&amp;E being notified as per this condition.</p>	Administrative Noncompliance

#	Condition	Requirement	Recommendation	Risk Level
O8	Appendix 3 Cond.2	Upgrade and maintenance of Tomingley West Road as per plans approved by Council.	It is recommended that TGO seek Council signoff on the road works completed one last time to close out this condition. In TGO's request, TGO should consider using words like - "if you don't respond we will assume you have approved the design".	Administrative Noncompliance
<b>Statement of Commitments</b>				
NC32	Cond. 4.4	Implement procedures for response to real-time monitoring results. As required on receipt of notification.	It is recommended that the procedures within section 5.3.1 and 5.3.2 of the NMP are followed or alternatively, the NMP is updated to include actual practices on site.	Low
NC33	Cond. 5.4	Ensure that all fuel and reagent storage, delivery and handling areas are appropriately sealed and bunded and that overflow pipes are installed in a manner that would minimise the potential for pollution in the event of overfilling.	It is recommended that fuel drums from deliveries are placed in a nominated bunded area. Delivery trucks should be informed of the drop-off protocol.	Medium
NC34	Cond. 5.5	Securely store all hydrocarbon and chemical products.	See recommendation for Cond 5.4 above.	Medium

#	Condition	Requirement	Recommendation	Risk Level
<b>Environment Protection Licence No 20169</b>				
NC35	EPL Cond. L1.1	<p><b>Pollution of waters</b></p> <p>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.</p>	<p>It is recommended that:</p> <ol style="list-style-type: none"> <li>1. The storage of all dangerous and hazardous goods across the site (and in particular in the compounds/worksh ops) is reviewed. Hazardous Materials storage plans for each storage location be prepared (in accordance with Dangerous Goods Legislation) and these plans provided to all contractors / sub-contractors.</li> <li>2. TGO regularly audit the storage and management of hazardous materials in all compounds/worksh ops</li> </ol>	<b>High</b>
NC36	EPL Cond. L2.1	<p><b>Concentration Limits</b></p> <p>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.</p>	<p>This incident is considered to be an isolated event, therefore, no recommendation for improvement has been made.</p>	<b>Administrative Noncompliance</b>
NC37	EPL Cond. L2.2	<p><b>Concentration Limits</b></p> <p>Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.</p>	<p>It is recommended that TGO investigate the cause of the incidents and develop a plan to prevent future pH exceedances.</p>	<b>Medium</b>



#	Condition	Requirement	Recommendation	Risk Level																																																																																				
NC38	EPL Cond. L2.4	<p><b>Concentration Limits</b></p> <p>Water and/or Land Concentration Limits</p> <p><b>POINT 2</b></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>Cyanide (weak acid dissociable)</td> <td>milligrams per litre</td> <td></td> <td>20</td> <td></td> <td>30</td> </tr> </tbody> </table> <p><b>POINT 4,5,6,7,8</b></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>Arsenic</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>0.024</td> </tr> <tr> <td>Cadmium</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>0.0002</td> </tr> <tr> <td>Copper</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>0.0014</td> </tr> <tr> <td>Electrical conductivity</td> <td>microsiemens per centimetre</td> <td></td> <td></td> <td></td> <td>350</td> </tr> <tr> <td>Lead</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>0.0034</td> </tr> <tr> <td>Nickel</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>0.011</td> </tr> <tr> <td>Nitrogen (total)</td> <td>micrograms per litre</td> <td></td> <td></td> <td></td> <td>250</td> </tr> <tr> <td>pH</td> <td>pH</td> <td></td> <td></td> <td></td> <td>6.5- 8.5</td> </tr> <tr> <td>Phosphorus (total)</td> <td>micrograms per litre</td> <td></td> <td></td> <td></td> <td>20</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>50</td> </tr> <tr> <td>Zinc</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>0.008</td> </tr> </tbody> </table>	Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Cyanide (weak acid dissociable)	milligrams per litre		20		30	Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Arsenic	milligrams per litre				0.024	Cadmium	milligrams per litre				0.0002	Copper	milligrams per litre				0.0014	Electrical conductivity	microsiemens per centimetre				350	Lead	milligrams per litre				0.0034	Nickel	milligrams per litre				0.011	Nitrogen (total)	micrograms per litre				250	pH	pH				6.5- 8.5	Phosphorus (total)	micrograms per litre				20	Total suspended solids	milligrams per litre				50	Zinc	milligrams per litre				0.008	See recommendation for Cond. L2.2 above.	Medium
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NC39	EPL Cond. L4.1	<p><b>Noise limits</b></p> <p><b>Limit Conditions</b></p> <p>Noise generated at the premises must not exceed the noise limits in the table below. The location groups referred to in the table below are indicated by Table 4 of 'Tomingley Gold Project – Noise and Blasting Assessment' (NBA) prepared by SLR Consulting dated September 2011 (Report Number 10-7910R1D10 Draft 10).</p> <table border="1"> <thead> <tr> <th>Location and Noise Assessment Group</th> <th>Day LAeq (15 minutes)</th> <th>Evening LAeq (15 minutes)</th> <th>Night LAeq (15 minutes)</th> <th>Night LA1 (1 minute)</th> </tr> </thead> <tbody> <tr> <td>Group A, R1, R6</td> <td>36</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td>Group A, R5</td> <td>37</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>Group A, All other receivers</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>Group B, All receivers</td> <td>36</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td>Group C, R3</td> <td>49</td> <td>38</td> <td>38</td> <td>45</td> </tr> <tr> <td>Group C, R29</td> <td>48</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>Group C, All other receivers</td> <td>46</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>Group D, All receivers</td> <td>43</td> <td>38</td> <td>38</td> <td>46</td> </tr> <tr> <td>All other residential receivers</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	Location and Noise Assessment Group	Day LAeq (15 minutes)	Evening LAeq (15 minutes)	Night LAeq (15 minutes)	Night LA1 (1 minute)	Group A, R1, R6	36	36	36	45	Group A, R5	37	37	37	45	Group A, All other receivers	35	35	35	45	Group B, All receivers	36	36	36	45	Group C, R3	49	38	38	45	Group C, R29	48	37	37	45	Group C, All other receivers	46	37	37	45	Group D, All receivers	43	38	38	46	All other residential receivers	35	35	35	45	TGO have investigated the exceedances and implemented mitigation measures. There are no further recommendations.	Low																																		
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#	Condition	Requirement	Recommendation	Risk Level
NC40	EPL Cond. L5.1	<p><b>Blasting Limits</b></p> <p>The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations 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.</p>	There are no recommendations (refer to findings).	Administrative Noncompliance
NC41	EPL Cond. L5.2	<p><b>Blasting Limits</b></p> <p>The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. 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.</p>	There are no recommendations (refer to findings).	Administrative Noncompliance
O9	EPL Cond. O1.1	<p><b>Activities must be carried out in a competent manner</b></p> <p>Licensed activities must be carried out in a competent manner.</p> <p>This includes:</p> <ul style="list-style-type: none"> <li>a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and</li> <li>b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.</li> </ul>	See recommendation for Project Approval Schedule 3, Cond. 49.	Low

#	Condition	Requirement	Recommendation	Risk Level
NC42	EPL Cond. M4.1	<p><b>Environmental monitoring</b></p> <p>To assess compliance with Condition L3.1, attended noise monitoring must be undertaken in accordance with Conditions L3.5 and:</p> <ul style="list-style-type: none"> <li>a) at each one of the locations listed in Condition L3.1;</li> <li>b) occur annually in a reporting period;</li> <li>c) occur during each day, evening and night period as defined in the NSW Industrial Noise Policy for a minimum of: <ul style="list-style-type: none"> <li>• 1.5 hours during the day;</li> <li>• 30 minutes during the evening; and</li> <li>• 1 hour during the night.</li> </ul> </li> <li>d) occur for three consecutive operating days.</li> </ul>	<p>As TGO owns the property at R1, it is recommended that TGO seek a licence amendment from the EPA, if they want to stop monitoring at that location.</p> <p>Alternatively, TGO should provide noise assessment data for R1 in future noise assessment reports.</p>	Low
<b>Mining Lease #1684</b>				
NC43	ML Cond. 10b	<p><b>Blast Overpressure</b></p> <p>The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment, Climate Change and Water.</p>	See recommendation for EPL Cond.L5.1.	Administrative Noncompliance

### 3.3 Opportunities for Improvement

During the site inspection, a range of observations related to environmental risk management and performance were identified. These observations and subsequent recommendations are presented below.

#### 3.3.1 Records/Document Management

Some of the non-compliances identified during the audit relate to the management of records and documents. For example: management plans have not been finalised in consultation with relevant authorities. Some Management Plans have not received final approval in writing from the Secretary. These conditions have been identified as administrative non-compliances.

#### 3.3.2 Dangerous Goods/ Waste Storage

Generally, site waste management was satisfactory. One observation was made during the site inspection which included recently delivered oil drums that had been located on a non-compliant bunded pallet (see Appendix A, Photos L and M). It is understood these drums were located this way temporarily due to them just being delivered to the site. Batteries were also observed being stored on the ground unbunded.

## 4. Limitations

This section should be read before reliance is placed on any of the opinions, advice, recommendations or conclusions herein set out.

This report has been prepared for and at the request of Tomingley Gold Operations Pty Ltd (The Client) pursuant to their appointment of Pitt & Sherry (Operations) Pty Ltd, (**pitt&sherry**), to act as its Independent Environmental Auditor. Save for the Client, no duty is undertaken or warranty or representation made to any party in respect of the opinions, advice, recommendations or conclusions herein set out.

Regard should be had to the terms and conditions of **pitt&sherry's** Proposal when considering this report and reliance to be placed on it.

All work carried out in preparing this report has used, and is based upon, **pitt&sherry's** professional knowledge and understanding of the current relevant environmental legislation.

Changes in the information collected at the time of the audit may cause the opinion, advice, recommendations or conclusions set out in this report to become inappropriate or incorrect. **pitt&sherry** will have no obligation to advise the Client of any such changes, or of their repercussions.

This report is based on observations during the Environmental Audit and information provided by the client. The information collected during the audit is believed to be true and is solely based on visual inspection (or site conditions and documentation presented) and information provided by the auditee. **pitt&sherry** is of the belief that all the information provided by the auditee is correct and true at the time of the audit.

Assessment of the adequacy of any environmental management strategies, plans and programs was limited to a brief desktop review only with regards to the Audit Scope. The EMS was not reviewed against ISO14001.

The content of this report represents the professional opinion of experienced environmental consultants. **pitt&sherry** does not provide specialist legal advice and the advice of appropriate legal professionals may be required.

## Appendix A

### Site Photographs

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Photo Ref	Photo	Comments
A		European Heritage Site
B		Eastern Drain and WRE #3





Photo Ref	Photo	Comments
C		<p>Biodiversity offset area north of the mine</p>
D		<p>Residual Storage Facility / Tailings Dam</p>




Photo Ref	Photo	Comments
E		Sediment Dam 1 and water discharge point
F		Visible Dust
G		Photo from WRE 2 looking South






Photo Ref	Photo	Comments
H		Tomingley Township
I		Clean water drain
J		Bulk Fuel Storage




Photo Ref	Photo	Comments
K		Bulk Oil Storage
L		Waste and Raw materials storage
M		Example of inappropriate oil storage





Photo Ref	Photo	Comments
N	 <p>A photograph showing four waste segregation bins at an industrial site. From left to right: a blue bin, a yellow bin labeled 'GENERAL WASTE ONLY', a green bin labeled 'SCRAP STEEL ONLY', and a grey bin labeled 'Hazardous Waste ONLY'. In the background, there is a large pile of yellowish material, a tall white cylindrical tank, and a conveyor belt system under a clear blue sky.</p>	Waste Segregation Bins
O	 <p>A photograph showing several large, blue, cylindrical storage tanks for Copper Sulphate. The tanks are arranged in a row on a dirt ground. In the background, there is an electrical substation with tall poles and wires, and some trees under a clear sky.</p>	Copper Sulphate Storage

Photo Ref	Photo	Comments
P		Bulk cyanide storage
Q		Scar Tree near site entrance to site

## Appendix B

### Letter to and response from DoI - Water

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2 March 2018

Tim Baker  
Deputy Secretary (Corporate, Heritage and Lands)  
Department of Primary Industries  
tim.baker@dpi.nsw.gov.au

Dear Tim,

## Independent Environmental Audit of Tomingley Gold Operations Request for comment

---

**pitt&sherry** Pty Ltd has been engaged by Alkane Resources to undertake an independent environmental audit of Tomingley Gold Operations (TGO) in accordance with its Project Approval granted by the Department of Planning and Environment (DP&E). The audit period is from 1 January 2015 until 31 December 2017.

The scope of the Audit is to:

- Assess the environmental performance of the project and assess whether it is complying with the relevant requirements e.g. CoA, EPL, ML (including any assessment, plan or program required under these approvals)
- Review the adequacy of the strategies, plans and programs required under the approvals
- Recommend measures and actions to improve the environmental performance of the project, and/ or any assessment, plant or program required under the abovementioned approvals.

**pitt&sherry** are writing to you to invite comment from DPI regarding TGO's compliance status and whether there are any specific environmental issues you would like the audit to target.

We are seeking written comments by the 8<sup>th</sup> of March 2018.

All correspondence in relation to this matter should be directed to Jade Molloy, **pitt&sherry** Principal Auditor on 0438 744 815 or [jmolloy@pittsh.com.au](mailto:jmolloy@pittsh.com.au).

Kind regards,



Principal Auditor and Environmental Consultant



transport  
community  
mining  
industrial  
food & beverage  
energy

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**Melbourne**  
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**Newcastle**  
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Ms Jade Molloy  
Pitt&sherry Pty Ltd – Principal Auditor  
By email: [jmolloy@pittsh.com.au](mailto:jmolloy@pittsh.com.au)  
By mobile: 0438 744 815

Contact Teagan-Lee Shepherd

Phone (02) 6841 7420

Email [teagan-lee.shepherd@dpi.nsw.gov.au](mailto:teagan-lee.shepherd@dpi.nsw.gov.au)

Our ref V15/3875-2#79

Your ref SY17296S001

Dear Jade,

### **Tomingley Gold Operations – Independent Environmental Audit**

Thank you for the opportunity to comment on the planned independent environmental audit of the Tomingley Gold Operations. Letter received on the 2<sup>nd</sup> of March 2018.

Department of Industry – Water (DoI Water) understands that the scope of the assessment as outlined under the development consent extends at least to compliance with:

- the conditions of consent;
- the statements of commitments as appended to the consent;
- any reporting or requirements within any relevant management plans prepared under the consent.
- all trigger action response plans for surface and groundwater impacts.

DoI Water requests that the audit considers compliance with the relevant water licensing requirements for the mining operation, specifically:

- Assessment as to whether the project holds the required water entitlements and licences under the *Water Management Act 2000* or *Water Act 1912* (as applicable);
- Compliance with the conditions of any water licences/approvals held.
- Identification of all water storages for the mine and identification of their licensing status being either exempt, subject to harvestable rights or regulated via a Water Access Licence.
- Quantification of both active and passive take by the project from each relevant water source and a comparison against previous predictions.

The following questions may aid in assessing the water licensing requirements of the mine operation:

- Does the proponent have enough licensed water entitlement to cater for active and passive take of water?
- Are adequate records kept to enable determination of the volume and source of surface and groundwater taken?
- Do any exemptions under the *Water Management (General) Regulation 2011* or Harvestable Rights Order (gazetted 31 March 2006) apply to the capture of water?

Should you require further information you can access DoI Water's submission to the Department of Planning and Environment at [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au). For further clarification of our submission please contact Teagan-Lee Shepherd, Water Regulation Officer (Dubbo) on (02) 6841 7420 or [teagan-lee.shepherd@dpi.nsw.gov.au](mailto:teagan-lee.shepherd@dpi.nsw.gov.au).

Yours sincerely



Tim Baker  
Senior Water Regulation Officer  
Lands and Water  
Department of Industry  
26 March 2018



## Appendix C

### Compliance Registers

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Tomingley Gold Operations - Alkane Resources Ltd

Independent Environmental Audit

Detailed Findings and Recommendations

Development Consent 09\_0155 Green type represents July 2016 modification, Blue type represents April 2015 modification, Red type represents November 2013 modification

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
SCHEDULE 2 - ADMINISTRATIVE CONDITIONS					
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT					
1	In addition to meeting the specific performance criteria established under this approval, the Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation or rehabilitation of the project.	Noted	n/a	n/a	There are no recommendations.
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.	Noted	The scope of the audit incorporated a review of compliance against the project approval, EPL 20169, Statement of Commitments and ML1730 only. Any non compliances identified through the audit are outlined in this compliance table.	n/a	There are no recommendations.
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	n/a	n/a	There are no recommendations.
4	The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: (a) any strategies, plans, programs, reviews, audit correspondence that are submitted in accordance with this approval; (b) any report, reviews or audits commissioned by the Department regarding compliance with this approval; and (c) the implementation of any actions or measures contained in these documents.	C	TGO Management Plans, strategies and AEMRs are submitted to DP&E for review and feedback. Reports are modified and actions and measures are implemented in accordance with DP&E consultation.	Management Assertion Correspondence emails between TGO and DPE	There are no recommendations.
LIMITS ON APPROVAL					
5	The Proponent may carry out mining operations on the site until 31 December 2022.	Noted	The date of this audit is February 2018 and thus this condition has not yet been triggered.	n/a	There are no recommendations.
6	The Proponent shall not: (a) process more than 1.5 million tonnes of ore at the site in a calendar year; (b) transport unprocessed ore from the site; or (c) process any ore other than that extracted from the site.	C	The 2016 Annual Review states that TGO aims to produce 50,000-70,000 ounces of gold per year, over the next 4.5 years, based on an annual ore throughput of approximately one million tonnes. Table 6 of the Annual Review provides the production summary with 1.1 million tonnes of Ore processed in 2016 and a scheduled 9.68 million tonnes processed in the following reporting period.  A weightometer is used by the mill to monitor processing volumes. Reconciliation summaries were sighted that report on the Dry tonnes milled per month for each financial year. The 2017 calendar year was calculated to be under 1.5million tonnes.  TGO smelt only gold produced on site. Residue from processing is disposed of in the Residue Storage Facility (RSF). Ore is processed on site and thus no unprocessed ore is transported off site.	Management Assertion Annual Review 2016 Reconciliation summaries 2014-15, 2016-17, 2017-18	There are no recommendations.
7	DELETED	Noted	n/a	n/a	There are no recommendations.
STRUCTURAL ADEQUACY					
8	The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. Notes: • 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.	Not Triggered	No structures or alterations have been completed since last audit.	Management Assertion / Auditor Observations	There are no recommendations.
DEMOLITION					
9	The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	Not Triggered	No demolition work has been carried out since the last audit.	Management Assertion	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation								
PROTECTION OF PUBLIC INFRASTRUCTURE													
10	Unless the Proponent and the applicable authority agree otherwise, the Proponent shall: (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.	C	TGO commissioned GHD to undertake an inspection of the batter on the North West corner of the mine haul road underpass under the Newell Highway. A contractor was commissioned to repair the scouring to the batter as per the recommendations within GHD's report. Photos were sighted of the completed works and TGO reported that all works recommended have been completed.	TGO Bridge joint sealing quote TGO Bridge repairs quote GHD Batter inspection report October 2016 Email correspondence GHD and TGO (18/10/16) Management Assertion	There are no recommendations.								
11	Unless otherwise agreed by RMS, all works associated with the underpass of the Newell Highway, all pipeline and transmission line crossings of classified roads, and all works connecting to classified roads shall be undertaken in accordance with the Works Authorisation Deed agreed between the Proponent and RMS and effective from 12 May 2011.	C	Compliant as per previous IEA. A copy of the Works Authorisation Deed was sighted. Section 2.1 'Newell Highway Underpass' of the TMP states that " The Newell Highway underpass has been designed and constructed in accordance with the RMS design criteria and standards. Screens have been installed adjacent to, and either side of, the underpass to prevent driver distraction".	RMS Works Authorisation Deed GHD IEA 2015 TMP Auditor Observations	There are no recommendations.								
OPERATION OF PLANT AND EQUIPMENT													
12	The Proponent shall ensure that all the plant and equipment used at the site, or to transport materials from the site, is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner	C	TGO advised that all plant and equipment must be checked against the 'Equipment Introduction TGO Site' checklist, an example of which was sighted. Completed pre-start checklists were sighted as well as the service scheduling register for plant on site. TGO also advised that an independent contractor does checks on plant and equipment. Protection Relay Test Reports were sighted.  During the site inspection, the plant and equipment was observed to be operated in proper and efficient manner. Based on the observation of plant and equipment being used on site at the time of the audit, this condition is assessed as compliant.	Auditor Observations during site inspection Equipment Introduction TGO Site' checklist pre-start checklists Protection Relay Test Reports	There are no recommendations.								
STAGED SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM													
13	With the approval of the Secretary, the Proponent may: (a) submit any strategy, plan or program required by this approval on a progressive basis; and (b) combine any strategy, plan or program required by this approval with any similar strategy, plan or program required for the project. Notes: • While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the activities on site are covered by suitable strategies, plans or programs at all times; and • If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.	Not Triggered	TGO have not submitted any staged or combined strategy, plan or program.	Management Assertion	There are no recommendations.								
PLANNING AGREEMENT													
14	By 30 November 2016, unless otherwise agreed by the Secretary, the Proponent shall amend the current planning agreement with Council under Division 6 of Part 4 of the EP&A Act to reflect the terms outlined in Appendix 3.	C	TGO have amended the planning agreement as per the terms outlined in Appendix 3. The signed variation planning agreement was sighted. Email correspondence with DP&E confirming that the planning agreement has been amended was sighted.	Planning agreement signed Email correspondence DP&E dated 26/07/2016	There are no recommendations.								
SCHEDULE 3 - ENVIRONMENTAL PERFORMANCE CONDITIONS													
NOISE													
1	Acquisition Upon Request 1. Upon receiving a written request for acquisition from an owner of the land in Table 1, the Proponent shall acquire the land in accordance with the procedures in conditions 6-7 of schedule 4.  <i>Table 1: Land subject to acquisition upon request</i>	Not Triggered	Acquisition has not been requested by any land owner.	Management Assertion	There are no recommendations.								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Lot</th> <th style="text-align: center;">DP</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">156</td> <td style="text-align: center;">755093</td> </tr> <tr> <td style="text-align: center;">157</td> <td style="text-align: center;">755093</td> </tr> <tr> <td style="text-align: center;">1622</td> <td style="text-align: center;">1178801</td> </tr> </tbody> </table>	Lot	DP	156	755093	157	755093	1622	1178801				
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Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation																																																																				
2	<p>Additional Noise Mitigation Measures</p> <p>Upon receiving a written request from the owner of the properties identified as R3, R23, R27, R28, R29, R32, R33 or R41, the Proponent shall implement additional noise mitigation measures (such as double-glazing, insulation and/or air conditioning) at the residence in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the noise impacts of the project on the residence.</p> <p>If the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p> <p>Note: to interpret the locations referred to in condition 2 of schedule 3, see the figure in Appendix 4</p>	C	No written requests from the owners of the nominated properties has been received. However, TGO carried out an acoustic treatment program on the nominated residences. Memorandum of Understanding (MOU) for Noise Reduction Works for various residents was sighted. The works that were undertaken were comprehensive.	Examples of MOU containing works carried out	There are no recommendations.																																																																				
3	<p>Noise Criteria</p> <p>Until 30 June 2019, unless agreed otherwise by the Secretary, the Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 2 at any residence on privately-owned land (except for residences on the land identified in Table 1).</p> <p><b>Table 2: Noise Criteria dB(A)</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Noise Assessment Group</th> <th rowspan="2">Receivers</th> <th>Day</th> <th>Evening</th> <th>Night</th> </tr> <tr> <th>(L<sub>eq</sub>(15-minute))</th> <th>(L<sub>eq</sub>(15-minute))</th> <th>(L<sub>eq</sub>(15-minute)) (LA(15-minute))</th> </tr> </thead> <tbody> <tr> <td rowspan="3">NAG A</td> <td>R1, R4, R6</td> <td>36</td> <td>36</td> <td>36</td> </tr> <tr> <td>R5</td> <td>37</td> <td>37</td> <td>37</td> </tr> <tr> <td>All other receivers</td> <td>35</td> <td>35</td> <td>35</td> </tr> <tr> <td>NAG B</td> <td>All receivers</td> <td>36</td> <td>36</td> <td>36</td> </tr> <tr> <td rowspan="6">NAG C</td> <td>R3</td> <td>49</td> <td>40</td> <td>40</td> </tr> <tr> <td>R27</td> <td>46</td> <td>38</td> <td>38</td> </tr> <tr> <td>R28</td> <td>46</td> <td>39</td> <td>39</td> </tr> <tr> <td>R29</td> <td>46</td> <td>40</td> <td>40</td> </tr> <tr> <td>R33</td> <td>46</td> <td>39</td> <td>39</td> </tr> <tr> <td>R41</td> <td>46</td> <td>38</td> <td>38</td> </tr> <tr> <td rowspan="3">NAG D</td> <td>All other receivers</td> <td>46</td> <td>37</td> <td>37</td> </tr> <tr> <td>R23, R32</td> <td>43</td> <td>39</td> <td>39</td> </tr> <tr> <td>All receivers</td> <td>43</td> <td>38</td> <td>38</td> </tr> <tr> <td>All other residential receivers</td> <td>35</td> <td>35</td> <td>35</td> </tr> </tbody> </table>	Noise Assessment Group	Receivers	Day	Evening	Night	(L <sub>eq</sub> (15-minute))	(L <sub>eq</sub> (15-minute))	(L <sub>eq</sub> (15-minute)) (LA(15-minute))	NAG A	R1, R4, R6	36	36	36	R5	37	37	37	All other receivers	35	35	35	NAG B	All receivers	36	36	36	NAG C	R3	49	40	40	R27	46	38	38	R28	46	39	39	R29	46	40	40	R33	46	39	39	R41	46	38	38	NAG D	All other receivers	46	37	37	R23, R32	43	39	39	All receivers	43	38	38	All other residential receivers	35	35	35	NC	<p>The NMP states that TGO conduct quarterly attended noise monitoring using a hand held noise meter for three consecutive night periods when mining is occurring. Monitoring is undertaken at R5, R6, R2, R4, R3, R29, R23.</p> <p>Attended noise monitoring using a hand held noise meter is undertaken annually during mining operations by a suitably qualified acoustic consultant. A full program of monitoring will be undertaken at each of the locations listed in Table 3 which matches Table 2 of this condition.</p> <p>A permanent real-time noise monitor has been established in the yard of 'Brooklands', Tomingley West Road.</p> <p>Annual Reviews for 2015, 2016 and 2017 were reviewed which show exceedances of the criteria. Exceedances in 2015 resulted in acoustic treatments to residents houses. Exceedances in 2016 were investigated and mitigation measures implemented. Only one exceedance occurred in 2017 relating to a mechanical failure on a piece of equipment.</p>	NMP Annual Review 2015, 2016, 2017	TGO have investigated the exceedances and implemented mitigation measures. There are no further recommendations.
Noise Assessment Group	Receivers			Day	Evening	Night																																																																			
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3A	<p>From 30 June 2019, unless agreed otherwise by the Secretary, the Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 2A at any residence on privately-owned land (except for the land identified in Table 1).</p> <p><b>Table 2A: Noise Criteria dB(A)</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Noise Assessment Group</th> <th rowspan="2">Receivers</th> <th>Day</th> <th>Evening</th> <th>Night</th> </tr> <tr> <th>(L<sub>eq</sub>(15-minute))</th> <th>(L<sub>eq</sub>(15-minute))</th> <th>(L<sub>eq</sub>(15-minute)) (LA(15-minute))</th> </tr> </thead> <tbody> <tr> <td>NAG A</td> <td>All receivers</td> <td>35</td> <td>35</td> <td>35</td> </tr> <tr> <td>NAG B</td> <td>All receivers</td> <td>36</td> <td>35</td> <td>35</td> </tr> <tr> <td>NAG C</td> <td>All receivers</td> <td>45</td> <td>35</td> <td>35</td> </tr> <tr> <td>NAG D</td> <td>All receivers</td> <td>43</td> <td>38</td> <td>36</td> </tr> <tr> <td>All other residential receivers</td> <td></td> <td>35</td> <td>35</td> <td>35</td> </tr> </tbody> </table> <p>Noise generated by the development is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy (as may be updated from time-to-time) or an equivalent NSW Government noise policy, as amended by Appendix 7 which sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.</p> <p>However, these criteria do not apply if the Proponent has an agreement with the relevant owner(s) of these residences/ land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.</p> <p>Notes</p> <ul style="list-style-type: none"> <li>To interpret the locations referred to in Tables 2 and 2A, see the figure in Appendix 4;</li> <li>Noise generated by the project is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy</li> </ul>	Noise Assessment Group	Receivers	Day	Evening	Night	(L <sub>eq</sub> (15-minute))	(L <sub>eq</sub> (15-minute))	(L <sub>eq</sub> (15-minute)) (LA(15-minute))	NAG A	All receivers	35	35	35	NAG B	All receivers	36	35	35	NAG C	All receivers	45	35	35	NAG D	All receivers	43	38	36	All other residential receivers		35	35	35	Not Triggered	This condition has not yet been triggered.	n/a	There are no recommendations.																																			
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4	<p>Operating Hours</p> <p>The Proponent shall comply with the operating hours in Table 3.</p> <p><b>Table 3: Operating hours</b></p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>Vegetation clearing and topsoil stripping</td> <td>6am-6pm, 7 days per week</td> </tr> <tr> <td>Construction</td> <td></td> </tr> <tr> <td>Mining, maintenance and processing operations</td> <td>24 hours, 7 days per week</td> </tr> <tr> <td>Rehabilitation</td> <td>7am-10pm, 7 days per week</td> </tr> </tbody> </table>	Activity	Operating Hours	Vegetation clearing and topsoil stripping	6am-6pm, 7 days per week	Construction		Mining, maintenance and processing operations	24 hours, 7 days per week	Rehabilitation	7am-10pm, 7 days per week	O	This is set out in section 4.2 'Operating Hours' of the NMP. It is noted that Table 5 'Approved Operating Hours' of the NMP does not provide operating hours for rehabilitation as outlined in this condition.	NMP	It is recommended that Table 5 within the NMP is updated to include operating hours for rehabilitation activities.																																																										
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4A	The Proponent shall only undertake construction works on the modified amenity bund between 7am and 6pm Monday to Friday and 8am and 1pm Saturday. Notes: • For the location of the modified amenity bund, see the figure in Appendix 2. • The maximum height of the modified amenity bund must not exceed 8 m, unless otherwise agreed by the Secretary.	C	The amenity bund has been completed.	Auditor Observation during site Inspection	There are no recommendations.
5a	Operating Conditions The Proponent shall: (a) implement best management practice, including all reasonable and feasible noise mitigation measures, to minimise the construction, operational and traffic noise of the project; including measures to: • minimise maximum noise levels from the tipping of waste rock; and • relocate mobile plant from elevated and exposed sections of the site under adverse meteorological conditions at night;	C	This is set out in section 4.6.4 'Operational Control' of the NMP.  No complaints have been received regarding out of hour work.	NMP Complaints Register Management Assertion	There are no recommendations.
5b	The Proponent shall: (b) operate a noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval;	C	The NMP states that a permanent real-time noise monitor is located at 'Brooklands' property north from the mine site. The real-time noise meter has been set to record alerts. These alerts will be used to guide the modification of operations to reduce noise levels. TGO has a permanent weather station located approximately 1000m to the north of the crusher and processing plant. This weather station feeds data to an on-line portal and is accessible to TGO staff at any time via the internet.  TGO have a weather zone subscription which provides data on wind, temperature inversion etc. This is used to guide the weeks activities. TGO have a weekly planning meeting and the mining teams are provided with the weather zone information to guide their operations for the week. TGO have also installed acoustic treatments to houses as a mitigation measure for noise and investigate noise issues and implement measures to mitigate noise impacts.	NMP Weekly planning meeting minutes and agenda Auditor Observation during site Inspection	There are no recommendations.
5c	The Proponent shall: (c) investigate ways to minimise the noise generated by the project;	C	This is set out in Section 4 'Best practice management and control of noise emissions' of the NMP. Attended noise monitoring is also being undertaken at proximate locations, as stipulated under EPL 20169.	NMP	There are no recommendations.
5d	The Proponent shall: (d) maintain the effectiveness of noise suppression equipment on plant at all times and ensure that defective plant is not used operationally until fully repaired;	C	This is set out in Section 4.4 'Engineering Noise Controls' of the NMP. The Site Specific Procedure 'Sound Power Screening Tests' has been developed as a screening tool to enable trained TGO personnel to quantify noise emissions from new plant and equipment brought onto site. The effectiveness of noise suppression equipment on plant is maintained through a combination of real time unattended noise monitoring, quarterly attended noise monitoring at sensitive receivers and annual attenuated noise monitoring.	NMP Monthly Noise Monitoring Assessments Annual Noise Monitoring Report	There are no recommendations.
5e	The Proponent shall: (e) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply; and	O	Predictive meteorological forecasting is used to guide site operations. TGO have a weather zone subscription which provides data on wind, temperature inversion etc. This is used to guide the weeks activities.  TGO have a weekly planning meeting and the mining teams are provided with the weather zone information to guide their operations for the week, however no evidence was verified of how this is put into action.	Management Assertion Weekly planning meeting minutes and agenda	It is recommended that TGO retain records from the weekly meetings that demonstrate that TGO have acted on weather conditions.
5f	The Proponent shall: (f) report on these investigations and the implementation and effectiveness of these measures in the Annual Review, to the satisfaction of the Secretary.	NC	The 2016 Annual Review provides for Management Measures investigated and implemented during the reporting period, however it does not report on the effectiveness of these measures.	Annual review 2016	It is recommended that the Annual Review include a section on the effectiveness of noise mitigation measures.
6a	Noise Management Plan The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. The plan must: (a) be prepared in consultation with the EPA and Council, and submitted to the Secretary for approval by the end of January 2013, unless the Secretary agrees otherwise.	NC	This is set out in section 2.4 'Consultation' of the NMP, however there are no appendices to the NMP showing what consultation was undertaken, if any comments were received or how they were addressed in the NMP. Approval of the NMP was sighted during the previous IEA in an email dated 17 June 2013.	NMP GHD IEA 2015	It is recommended that the consultation that occurred with the EPA, Council and DP&E are attached as an appendix to the NMP for future reference. Any comments provided should also be addressed.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
6b	Noise Management Plan The plan must: (b) describe the measures that would be implemented to ensure compliance with conditions 3-5 of this schedule, including a trigger action response plan based on noise complaints, real time and attended noise monitoring;	NC	Responses to noise complaints are set out in section 5.6, responses to attended noise monitoring are set out in section 5.2 and responses to real time monitoring are set out in sections 5.3.1 and 5.3.2. As per condition 3 above, TGO have exceeded noise limits during attended noise monitoring one of these being 27th April. Section 5.2 of the NMP states that: "• On observing exceedance information during attended noise monitoring, the person undertaking the monitoring will contact the night shift Mining Supervisor and inform them of the noise level and location of the noise exceedance. • The Mining Supervisor will immediately investigate the source of the noise and make necessary arrangements to alter operations to reduce noise levels. • The Mining Supervisor will inform the person undertaking the noise monitoring (or the Environment and Community Manager) when site operations have been altered. • The person undertaking the monitoring (or the Environment and Community Manager) will recheck and confirm noise levels with the Mining Supervisor.  Email evidence investigating the noise exceedance was sighted however this was undertaken from 3/5/2017 almost a week after the exceedance occurred and not in line with the steps in the NMP. It is noted that TGO externally contract attended noise monitoring.	NMP Complaints Register Management Assertion	It is recommended that noise exceedances are investigated at the time of the exceedance. In future, those undertaking the attended noise monitoring must contact the Mine Supervisor as soon as they observe the exceedance, in this case, TGO should ensure the external noise monitoring consultant is aware of their obligations.
6c(i)	Noise Management Plan The plan must: (c) include a monitoring program that: (i) uses a combination of real-time and supplementary attended monitoring measures to evaluate the performance of the project;	C	A permanent real time noise monitor is installed and operating and is used in conjunction with attended noise monitoring. The noise monitoring undertaken on site is set out in section 4.6 'Noise Monitoring' of the NMP.	NMP Auditor Observation during site Inspection	There are no recommendations.
6c(ii)	Noise Management Plan The plan must: (c) include a monitoring program that: (ii) adequately supports the proactive and reactive noise management system on site;	C	The monitoring program includes real-time monitoring in conjunction with attended noise monitoring. This is set out in Section 4.6 of the NMP, 'Noise Monitoring'.	NMP	There are no recommendations.
6c(iii)	Noise Management Plan The plan must: (c) include a monitoring program that: (iii) defines what constitutes a noise incident, and includes a protocol for identifying noise incidents and notifying the Department and relevant stakeholders of any such incident;	C	This is set out in section 5.3.3 of the NMP 'Noise Incident Response'.	NMP	There are no recommendations.
6c(iv)	Noise Management Plan The plan must: (c) include a monitoring program that: (iv) evaluates and reports on the effectiveness of the noise management system on site;	C	This is set out in section 7 'Review'.	NMP	There are no recommendations.
6c(v)	Noise Management Plan The plan must: (c) include a monitoring program that: (v) includes a program to calibrate and validate the real time noise monitoring results with the attended monitoring results over time (so the real time monitoring program can be used as a better indicator of compliance with the noise criteria in this approval and a trigger for further attended monitoring); and	C	This is set out in section 5.2.1 'Validation Assessment' which states that "A noise validation assessment chapter comparing attended and unattended noise monitoring results will be incorporated into the annual EPL reporting". The 2016 Annual Review was reviewed which sets out this condition in section 6 'Comparison of Attended and Unattended Monitoring Results'.	NMP Annual Review 2016	There are no recommendations.
6d	Noise Management Plan The plan must: (d) include a noise reduction strategy for progressively reducing mine noise during open cut mining operations, consistent with the noise scenarios described in the document 'Tomingley Gold Mine Environmental Assessment – Project Approval No. 09_0155 Modification 3' dated November 2015.	Not Verified	The Tomingley Gold Mine Environmental Assessment dated November 2015 was not provided and thus the scenarios within this document could not be verified.	n/a	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation																
BLASTING																					
7	<p>Blasting Criteria</p> <p>The Proponent shall ensure that blasting on the site does not cause exceedances of the criteria in Table 4.</p> <table border="1"> <caption>Table 4: Blasting Criteria</caption> <thead> <tr> <th>Location</th> <th>Airblast Overpressure (dB(Lin Peak))</th> <th>Ground Vibration (mm/s)</th> <th>Allowable Exceedance</th> </tr> </thead> <tbody> <tr> <td>Residence on privately-owned land</td> <td>120</td> <td>10</td> <td>0%</td> </tr> <tr> <td></td> <td>115</td> <td>5</td> <td>5% of total blasts over any 12 month period</td> </tr> <tr> <td>All public infrastructure</td> <td>-</td> <td>50, or alternatively, a specific limit determined to the satisfaction of the Secretary by the structural design methodology in AS 2187.2-2006, or its latest version</td> <td>0%</td> </tr> </tbody> </table> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner, and has advised the Department in writing of the terms of this agreement.</p>	Location	Airblast Overpressure (dB(Lin Peak))	Ground Vibration (mm/s)	Allowable Exceedance	Residence on privately-owned land	120	10	0%		115	5	5% of total blasts over any 12 month period	All public infrastructure	-	50, or alternatively, a specific limit determined to the satisfaction of the Secretary by the structural design methodology in AS 2187.2-2006, or its latest version	0%	NC	<p>TGO monitors blasts on site and uploads monitoring records on to the TGO website. Upon review of the records, it was found that three blast exceedances for airblast overpressure were observed during 2015 and two blast exceedances for airblast overpressure were observed during 2016. All blasts for 2017 were below the prescribed levels for overpressure and vibration. Overpressure exceedances were investigated by an external consultant. Procedures and remedial measures were implemented by TGO as per recommendations in the external report and no exceedances have been recorded since.</p>	<p>2015 Annual Review 2016 Annual Review 2017 Annual Review</p>	<p>There is no further recommendation:</p> <p>TGO investigated the causes of the overpressure exceedances and implemented remedial measures as required.</p>
Location	Airblast Overpressure (dB(Lin Peak))	Ground Vibration (mm/s)	Allowable Exceedance																		
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8	<p>Blasting Hours</p> <p>The Proponent shall only carry out blasting on site between 9:00am and 5:00pm Monday to Saturday, inclusive. No blasting is allowed on Sundays, public holidays or at any other time without the written approval of the Secretary.</p>	C	<p>This is set out in section 8.1.2 'Blasting Times &amp; Frequency' of the BMP. A sample of Monthly Environmental Monitoring Reports were reviewed and found no blasts to be carried out on Sundays or outside the approved timeframes.</p>	<p>Monthly Environmental Monitoring Report January 2017, March 2017, June 2017, August 2017 and December 2017 BMP</p>	<p>There are no recommendations.</p>																
9	<p>Blasting Frequency</p> <p>The Proponent may carry out a maximum of three blasts per day for mining operations on the site, unless an additional blast is required following a blast misfire.</p> <p>This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, or blasts required to ensure the safety of the site or its workers.</p> <p>Note: for the purpose of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the site.</p>	C	<p>Blast monitoring summary tables from January 2017 to December 2017 were reviewed. Blast timing was checked against the requirements under this condition and found to be compliant.</p>	<p>Monthly Environmental Monitoring Report January 2017, March 2017, June 2017, August 2017 and December 2017 BMP</p>	<p>There are no recommendations.</p>																
10	<p>Property Inspections</p> <p>The Proponent shall advise the owners of privately-owned land within 2 kilometres of blasting operations at least 2 months prior to blasting that they are entitled to a structural property inspection to establish the baseline condition of buildings and other structures on the property.</p>	C	<p>This is set out in section 14 'Property Inspections' of the BMP which states that "TGO wrote to all land owners within a 2km radius of the mining pits (where blasting will be undertaken) and invited them to have a Pre-Blasting Structural Survey of their home and any structures located within their property. 20 landowners responded, taking up the opportunity to have their property surveyed."</p> <p>The letter sent to Council, a word version of the letter sent out to residents and a record of where the letter was delivered was sighted.</p>	<p>BMP Letter to council 15/08/13 Copy of Letter sent to residents 08/08/13</p>	<p>There are no recommendations.</p>																
11	<p>Property Inspections</p> <p>If the Proponent receives a written request from any such landowner, then within one month of receiving the request, and where possible prior to blasting, the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:</p> <p>(i) establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and</p> <p>(ii) identify measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/ or structures; and</p> <p>(b) give the landowner a copy of the new or updated property inspection report.</p> <p>If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Secretary for resolution.</p>	C	<p>This is set out in section 14 'Property Inspections' of the BMP which states that "20 landowners responded, taking up the opportunity to have their property surveyed.</p> <p>Over 19th and 20th September 2013 Calare Civil Consulting Engineers of Bathurst undertook the Pre-Blasting Structural Surveys of the properties.</p> <p>Calare Civil Consulting Engineers produced Property Condition Reports and these were provided to the land owner as well as TGO.</p> <p>An example of the Building Survey report for "Hart's Cottage" was sighted.</p>	<p>BMP Hart's Cottage Building Survey 20/09/13</p>	<p>There are no recommendations.</p>																



Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
12	<p>Property Investigations</p> <p>If the owner of any privately-owned land claims that buildings and/ or structures on his/ her land have been damaged as a result of blasting on the site, then within one month of receiving this claim the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and</p> <p>(b) give the landowner a copy of the property investigation report.</p> <p>If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damage to the satisfaction of the <a href="#">Secretary</a>.</p> <p>If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the independent property investigation, either party may refer the matter to the <a href="#">Secretary</a> for resolution.</p>	C	<p>Three owners of privately-owned land have claimed damage on their buildings due to blasting. TGO commissioned Calare Civil Consulting Engineers to undertake a property structure survey on all three properties.</p> <p>All reports concluded that the observed defects have not been caused by blasting activities associated with the Tomingley Mine. No claims were made in 2016 or 2017.</p>	<p>Property Structure Survey, Lucky Strike Motel 02/02/16</p> <p>Property Structure Survey, LCNR Myall St and Merilba St 22/07/15</p> <p>Property Structure Survey, 40 Myall St 21/07/15</p>	There are no recommendations.
13a(i)	<p>Operating Conditions</p> <p>During operation of the project, the Proponent shall:</p> <p>(a) implement best management practice to:</p> <p>(i) protect the safety of people and livestock in the surrounding area;</p>	C	<p>TGO undertake blasting in accordance with the 'Blast management Plan' which is guided by the following principles:</p> <ol style="list-style-type: none"> <li>1. Safety and community first; and</li> <li>2. Most practical blast strategy.</li> </ol> <p>Mitigation measures derived from the risk assessment and in line with the "safety first" principle aim to protect personnel on site as well as external mine site stakeholders and members of the public. Mitigation measures are outlined in section 8 of the BMP 'Operational Management of Blasting Activities'. Any areas with livestock are fenced to prevent them entering the site. There is also an agreement with nearby residents that they fly a red flag when blasting. There have been no incidents or complaints in regards to blasting.</p>	<p>BLMP</p> <p>Site Inspection</p> <p>Complaints Register</p>	There are no recommendations.
13a(ii)	<p>Operating Conditions</p> <p>During operation of the project, the Proponent shall:</p> <p>(a) implement best management practice to:</p> <p>(ii) protect public or private infrastructure/ property in the surrounding area from any damage, including the Newell Highway; and</p>	C	<p>Section 8.1.3 of the BLMP states that "A risk assessment will be undertaken prior to blasting activities to determine the likely impact to Public Infrastructure (including the Newell Highway) and the necessary mitigation measures will be put in place prior to blasting occurring". The risk Assessment undertaken for the site is included in section 7 of the BLMP.</p> <p>TGO also undertake ground vibration monitoring of which five exceedances for airblast overpressure have occurred during the last 3 years. Three owners of privately-owned land have claimed damage on their buildings due to blasting. TGO commissioned Calare Civil Consulting Engineers to undertake a property structure survey on all three properties. All reports concluded that the observed defects have not been caused by blasting activities associated with the Tomingley Mine.</p>	<p>BLMP</p> <p>Annual Review</p> <p>Property Structure Survey, Lucky Strike Motel 02/02/16</p> <p>Property Structure Survey, LCNR Myall St and Merilba St 22/07/15</p> <p>Property Structure Survey, 40 Myall St 21/07/15</p>	There are no recommendations.
13a(iii)	<p>Operating Conditions</p> <p>During operation of the project, the Proponent shall:</p> <p>(a) implement best management practice to:</p> <p>(iii) minimise the dust and fume emissions from any blasting;</p>	C	<p>This is set out in section 8.1.5 of the BLMP 'Dust and Fume Emissions'. Dust from blasting is managed in accordance with the TGO Explosives and Blast Management Plan as well as weather forecast monitoring, dust monitoring, base line studies, temporary Highway closures during blast periods in Caloma and Wyoming 1 pits, visual monitoring for fumes and the installation of warning signs and notifications.</p>	BLMP	There are no recommendations.
13b	<p>Operating Conditions</p> <p>During operation of the project, the Proponent shall:</p> <p>(b) minimise the frequency and duration of any road closures, and avoid road closures during peak traffic periods; and</p>	C	<p>This is set out in section 8.1.8 of the BLMP which states that "Road Closures will be implemented during blasting in accordance with RMS requirements".</p> <p>TGO also have a road closure procedure that allows the closing and re-opening of Newell Highway within 2 minutes.</p>	<p>BLMP</p> <p>Management Assertion</p> <p>Road Runner Clearance Procedure</p> <p>Mine Blast Road Closure Plan</p> <p>Instruction - Traffic Controller 2: Road Closure (Truck Stop End)</p> <p>Instruction - Traffic Controller 2: Road Closure (Tomingley End)</p>	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
13c	<p>Operating Conditions</p> <p>During operation of the project, the Proponent shall:</p> <p>(c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the <a href="#">Secretary</a>.</p>	NC	<p>This is set out in section 8.1.1 Blast Notification Systems in Sensitive locations' which states: Two RMS installed blasting notification boards will be provided for the community. One in the truck parking bay in the village of Tomingley and one in the parking bay on the Newell Highway at the south end of the mining lease notifying motorists and the public of blast operations in the area. For blasting in the Wyoming 1 and Caloma 2 pits, a weekly schedule is to be prepared and provided to the land owner/leaseholders to the south of the Wyoming 1/Caloma 2 pit alerting them to blasting days and times. Examples of these letters were sighted.</p> <p>However, these letters were dated 2016 and TGO reported that the process has changed whereby TGO put up a red flag (adjacent to their land) the morning of a blast to alert the neighbours. It was reported that the 2 neighbours are satisfied with the use of the red flag approach. TGO also reported that there has been no issue to date with this method of alert.</p> <p>Evidence of approval by the Secretary for the change in notifications to landowners has not been provided by TGO.</p>	<p>BLMP</p> <p>Site Inspection</p> <p>Management Assertion</p> <p>Blast Alert Letter 2016</p>	<p>It is recommended that section 8.1.1 of the BLMP is updated to reflect the blast notification system now used on site.</p> <p>Seek the agreement of the Secretary for the proposed change in the notification process. Note that the previously agreed notification process must be maintained until the Secretary's approval of the change is received.</p>
14a	<p>Blast Management Plan</p> <p>The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the <a href="#">Secretary</a>. This plan must:</p> <p>(a) be prepared in consultation with OEH, RMS and Council, and submitted to the Secretary for approval prior to undertaking any blasting in conjunction with mining operations on-site;</p>	C	<p>This is set out in Section 6 'Consultation' and Appendix 1 of the BLMP. However evidence of the consultation has not been provided within Appendix 1 only a list of those who were consulted with. The letter of approval for the BLMP from DPE was sighted - it is noted that it mistakenly refers to the Traffic Management Plan in the letter. Email correspondence showing consultation with the government agencies was sighted dated 29/11/2016. Email correspondence from RMS and OEH choosing not to comment was also provided.</p>	<p>BLMP</p> <p>BLMP Approval letter DPE 23/12/16</p> <p>Email consultation 29/11/2016</p> <p>EPA letter 2/12/16</p>	There are no recommendations.
14b	<p>Blast Management Plan</p> <p>This plan must:</p> <p>(b) describe the blast mitigation measures that would be implemented to ensure compliance with conditions 7-13 of this schedule; and</p>	C	<p>This is set out in section 8 'operational management of Blasting Activities' of the BLMP.</p>	BLMP	There are no recommendations.
14c	<p>Blast Management Plan</p> <p>This plan must:</p> <p>(c) include a blast monitoring program to evaluate the performance of the project.</p>	C	<p>This is set out in section 10 'Monitoring' of the BLMP.</p>	BLMP	There are no recommendations.
<b>AIR QUALITY AND GREENHOUSE GAS</b>					
15	<p>Odour</p> <p>The Proponent shall ensure that no offensive odours, as defined under the POEO Act, are emitted from the site.</p>	C	<p>This is set out in Section 6.2 of the AQHGMP, 'Odour'.</p> <p>There was no offensive odours detected during the site inspection.</p> <p>There have been no complaints in response to odour generated from mine activities.</p>	<p>Complaints Register 2017, 2016 and 2015</p> <p>AQHGMP</p> <p>Site Inspection</p>	There are no recommendations.
16	<p>Greenhouse Gas Emissions</p> <p>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 <a href="#">Secretary</a>.</p>	C	<p>This is set out in Section 6.3 'Greenhouse Gas' of the AQHGMP. All mobile equipment undergo regular maintenance on site.</p> <p>Five dust deposition gauges are installed in the community surrounding the Project site and in the vicinity of the nearest and most affected private receptors. NGRS reporting is conducted in relation to site operations. TGO implement the greenhouse gas reporting system, EnviroSuite, to track energy consumption and greenhouse gas emissions, establish targets for reduction and facilitate assessment and reporting against targets for reduction. The results from the greenhouse gas reporting system will be regularly reviewed to ensure the data being collected is meaningful. EnviroSuite is utilised annually in September and October for energy reporting. EnviroSuite was sighted.</p>	<p>AQHGMP</p> <p>Management Assertion</p> <p>Site Inspection</p> <p>EnviroSuite</p>	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation																							
17	<p><b>Air Quality Criteria</b> The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the criteria listed in Tables 5, 6 or 7 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p> <p><i>Table 5: Long term impact assessment criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th><sup>d</sup> Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td><sup>a</sup> 90 µg/m<sup>3</sup></td> </tr> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>Annual</td> <td><sup>a</sup> 30 µg/m<sup>3</sup></td> </tr> </tbody> </table> <p><i>Table 6: Short term impact assessment criterion for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th><sup>d</sup> Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>24 hour</td> <td><sup>a</sup> 50 µg/m<sup>3</sup></td> </tr> </tbody> </table> <p><i>Table 7: Long term impact assessment criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th><sup>b</sup> Maximum increase in deposited dust level</th> <th><sup>a, c</sup> Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td><sup>c</sup> Deposited dust</td> <td>Annual</td> <td><sup>b</sup> 2 g/m<sup>2</sup>/month</td> <td><sup>a, c</sup> 4 g/m<sup>2</sup>/month</td> </tr> </tbody> </table>	Pollutant	Averaging Period	<sup>d</sup> Criterion	Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>	Pollutant	Averaging Period	<sup>d</sup> Criterion	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>	Pollutant	Averaging Period	<sup>b</sup> Maximum increase in deposited dust level	<sup>a, c</sup> Maximum total deposited dust level	<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a, c</sup> 4 g/m <sup>2</sup> /month	NC	The AEMR 2015, 2016 and 2017 details the occurrence of exceedances to the air quality criteria. Mitigation measures were implemented for each occurrence including revision of the AQGHGMP by an independent air quality consultant (Pacific Environment) to ensure consistency with industry leading practice.	AEMR 2015 AEMR 2016 AEMR 2017	TGO has investigated the causes of the air quality exceedances, implemented remedial measures as required and updated the Air Quality Management Plan including correspondence with DPE for review, therefore, there are no further recommendations.
Pollutant	Averaging Period	<sup>d</sup> Criterion																										
Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>																										
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Note	<p>Notes to Tables 5-7:</p> <ul style="list-style-type: none"> <li>a Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);</li> <li>b Incremental impact (ie incremental increase in concentrations due to the project on its own);</li> <li>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</li> <li>d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.</li> </ul>	Noted	n/a	n/a	There are no recommendations.																							
18a	<p><b>Operating Conditions</b> The Proponent shall: (a) implement best management practice, including all reasonable and feasible measures to minimise the off-site odour, fume and dust emissions from the project;</p>	C	<p>Dust control is set out in section 6 'Operation Control Measures' of the Site Specific Procedure - Dust Control. Odour is set out in Section 6.2 of the BMP. The BMP also noted that "Given the scale of blasting operations, shot design and management practices, explosives products used, and properties of geological strata encountered at TGO, it is unlikely that blasting would generate fumes of sufficient scale to impact on sensitive receptors".</p> <p>Usage of water carts was also observed on site.</p>	AQGHGMP Management Assertion Site Inspection	There are no recommendations.																							
18b	<p><b>Operating Conditions</b> The Proponent shall: (b) regularly assess the predictive meteorological forecasting data and real-time air quality monitoring data to guide the day-to-day planning of mining operations and implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval;</p>	C	This is set out in section 8 'Air Quality Response Plan' of the AQGHGMP. The previous IEA recommended that TGO implement a formal process where the environmental manager (or other responsible person) alerts the site management about dust levels approaching the daily criteria. TGO advised that they have implemented this recommendation and that the TEOM is linked to the weather station and when there is an exceedance it reports via email and text to the mine supervisor. Email examples from the mine supervisor were sighted which explain what mitigation measures were put in place when a dust exceedance in the area occurs.	AQGHGMP Exceedance email examples	There are no recommendations.																							
18c	<p><b>Operating Conditions</b> The Proponent shall: (c) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d to Tables 5-7);</p>	C	<p>This is set out in section 6 'Operation Control Measures' of the Site Specific Procedure - Dust Control and section 8 'Air Quality Response Plan' of the AQGHGMP.</p> <p>The previous IEA recommended that TGO implement a formal process where the environmental manager (or other responsible person) alerts the site management about dust levels approaching the daily criteria. TGO advised that they have implemented this recommendation and that the TEOM is linked to the weather station and when there is an exceedance it reports via email and text to the mine supervisor. Email examples from the mine supervisor were sighted which explain what mitigation measures were put in place when a dust exceedance in the area occurs.</p>	AQGHGMP Exceedance email examples	There are no recommendations.																							

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
18d	Operating Conditions The Proponent shall: (d) monitor and report on compliance with the relevant air quality conditions in this approval; and	C	This is set out in the TGO Monthly Environmental Monitoring Reports.	Monthly Environmental Monitoring Reports	There are no recommendations.
18e	Operating Conditions The Proponent shall: (e) take all practical measures to minimise dust emissions from the residue storage facility, to the satisfaction of the <a href="#">Secretary</a> .	C	This is set out in section 6 'Operation Control Measures' of the Site Specific Procedure - Dust Control and section 8 'Air Quality Response Plan' of the AQHGMP. The Dust Control Procedure applies to the entire project site.	AQHGMP	There are no recommendations.
19a	Air Quality and Greenhouse Gas Management Plan The Proponent shall prepare and implement an Air Quality and Greenhouse Gas Management Plan for the project to the satisfaction of the <a href="#">Secretary</a> . This plan must: (a) be prepared in consultation with the EPA and Council, and be submitted to the Secretary for approval by the end of January 2013, unless the Secretary agrees otherwise;	C	This is set out in section 3.2 'Consultation' of the AQHGMP. Appendix 1 provides details of the consultation undertaken. Approval of the plan was sighted and compliant as per previous IEA.	AQHGMP GHD IEA 2015	There are no recommendations.
19b	Air Quality and Greenhouse Gas Management Plan The Proponent shall prepare and implement an Air Quality and Greenhouse Gas Management Plan for the project to the satisfaction of the <a href="#">Secretary</a> . This plan must: (b) describe the measures that would be implemented to ensure compliance with conditions 15-18 of this schedule, including a trigger action response plan based on air complaints, air quality and visual monitoring and meteorological forecasting and monitoring;	C	This is set out in section 8 'Air Quality Response Plan' of the AQHGMP. TGO have a weather zone subscription which provides data on wind, temperature inversion etc. This is used to guide the weeks activities. TGO have a weekly planning meeting and the mining teams are provided with the weather zone information to guide their operations for the week.	AQHGMP	There are no recommendations.
19c	Air Quality and Greenhouse Gas Management Plan The Proponent shall prepare and implement an Air Quality and Greenhouse Gas Management Plan for the project to the satisfaction of the <a href="#">Secretary</a> . This plan must: (c) include a program for the implementation of the measures referred to in (b) above;	C	This is set out in section 8 'Air Quality Response Plan' of the AQHGMP.	AQHGMP	There are no recommendations.
19d	Air Quality and Greenhouse Gas Management Plan The Proponent shall prepare and implement an Air Quality and Greenhouse Gas Management Plan for the project to the satisfaction of the <a href="#">Secretary</a> . This plan must: (d) include an air quality monitoring program that (i) uses a combination of real-time and supplementary attended monitoring measures to evaluate the performance of the project; (ii) adequately supports the proactive and reactive air quality management system on site; and (iii) includes a protocol for determining exceedances of the relevant conditions of this approval; and	C	(i) The air quality monitoring program includes a real-time TEOM for PM10, a high volume air sampler (HVAS) for Total Suspended Particulates (TSP) and five dust deposition gauges (DDG) for dust deposition. (ii) The air quality monitoring program is sufficient to support both proactive and reactive management onsite. Proactive and reactive management is set out in section 8 of the AQHGMP. (iii) This is set out in section 8.2 of the AQHGMP which states that "The continuous TEOM PM10 monitor will relay the data in near-real-time to a website. This website shall be accessible to the relevant mine personnel on a continuous basis. An SMS alarm will be sent to relevant mine personnel when pre-determined levels are breached, which would in turn indicate what and when action is required".	AQHGMP	There are no recommendations.
19e	Air Quality and Greenhouse Gas Management Plan The Proponent shall prepare and implement an Air Quality and Greenhouse Gas Management Plan for the project to the satisfaction of the <a href="#">Secretary</a> . This plan must: (e) describe the measures that would be implemented to minimise the release of greenhouse gas emissions from the site.	C	This is set out in Section 6.3 'Greenhouse Gas' of the AQHGMP. All mobile equipment undergo regular maintenance on site. Five dust deposition gauges are installed in the community surrounding the Project site and in the vicinity of the nearest and most affected private receptors. NGRS reporting is conducted in relation to site operations. TGO implement the greenhouse gas reporting system, EnviroSuite, to track energy consumption and greenhouse gas emissions, establish targets for reduction and facilitate assessment and reporting against targets for reduction. The results from the greenhouse gas reporting system will be regularly reviewed to ensure the data being collected is meaningful.	AQHGMP Management Assertion Site Inspection Envirosuite	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
METEOROLOGICAL MONITORING					
20	<p><b>METEOROLOGICAL MONITORING</b></p> <p>For the life of the project, the Proponent shall ensure that there is a suitable meteorological station operating in the vicinity of the site that:</p> <p>(a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and</p> <p>(b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, unless a suitable alternative is approved by the Secretary following consultation with the EPA.</p>	NC	<p>An email dated 27/04/15 from the supplier of the meteorological station was sighted which states that it complies with a) and not b) of this condition.</p> <p>The previous IEA recommended that TGO seek approval from the Director General (now Secretary) following consultation with the EPA, regarding whether the TGO weather station is a suitable alternative for continuous real time temperature lapse rate. An email letter submitted to the EPA on 30/12/15 explaining the situation and "confirming that TGO considers the use of the sigma-theta method to measure temperature lapse rate a suitable alternative to direct measurement". It was reported that the EPA did not respond and the DPE has not been notified.</p>	<p>Management Assertion</p> <p>Letter to EPA regarding weather station</p> <p>Letter from the supplier complying with a)</p>	<p>It is recommended that TGO:</p> <ol style="list-style-type: none"> <li>1. contact the EPA until a response to the request for agreement with the change in monitoring</li> <li>2. Write to the DP&amp;E seeking exemption for item b) of this condition.</li> </ol>
SOIL AND WATER					
NOTE	Note: Under the Water Act 1912 and/ or the Water Management Act 2000, the Proponent is required to obtain the necessary water licences for the project.	Noted	n/a	n/a	There are no recommendations.
21	<p><b>Water Supply</b></p> <p>The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations to match its available water supply, to the satisfaction of the Secretary.</p>	C	<p>Sufficient water is ensured through the Site Water Balance and the WMP. Section 5.2, Table 5-1 'Surface water monitoring program' states that the Raw Water Dam is monitored quarterly, however TGO advised that the RWD is monitored constantly by telemetry. Raw water is supplied from the Woodlands Borefield and is stored in the Raw Water Dam (RWD). The water balance modelling indicates that approximately 50% of TGO's water supply is supplied by the Woodland Borefield. TGO also advised that they have ~700meg in Caloma 1 which is used for dust suppression and process water make up. At the time of the site inspection, water supply was observed as adequate.</p>	<p>WMP</p> <p>Site Inspection</p> <p>Management Assertion</p> <p>Aerial Image</p> <p>Water Licence WAL20270</p>	There are no recommendations.
22	<p><b>Water Supply</b></p> <p>With the exception of potable water sourced to supply domestic consumption needs on the site, the Proponent shall preferentially employ water harvested from the site or generated through mine dewatering in place of potable water sourced from off-site.</p>	C	<p>Water intercepted by the sediment basins is transferred to the Caloma One void and subsequently to the north cell of the Wyoming Central Dam (WCD – North) for reuse in dust suppression and as process water make up, or discharged off site via the licensed discharge points. WCD – North acts as a staging point for mine water used for dust suppression and supplied to the process water system. However, the water balance modelling indicates that approximately 50% of TGO's water supply is supplied by the Woodland Borefield.</p>	<p>WMP</p> <p>Auditor Observations of water retention dams during site inspection</p>	There are no recommendations.
23	<p><b>Water Discharges</b></p> <p>The Proponent shall ensure that all surface water discharges from the site comply with:</p> <p>(a) section 120 of the POEO Act; or</p> <p>(b) the discharge limits (both volume and quality) set for the project in any applicable EPL.</p>	NC	<p>TGO only discharged once during the audit period which occurred on 2 December 2017. The pre-rain checklist that is required to be completed prior to a rain event was sighted for this particular discharge event dated 26/11/17. The incident report sent to the EPA, DPE, NSC and DRG on 11/12/17 was sighted. The sampling results for surface water on this date were also sighted which show exceedances of the limits within the EPL.</p> <p>Section 3.3 Dirty Water of the WMP states that "Sediment basins are designed to manage sediment-laden runoff generated by the 10 day, 90th percentile rainfall event".</p> <p>The water discharge in December 2017, that was a non-compliance with the EPL, was the result of a high intensity rain. The dirty water dams on site reached capacity and subsequently discharged water off-site that had a pH exceeding the EPL discharge quality conditions. It is likely that on occasions that high intensity rainfall events will again result in the discharge of waters that could exceed the water quality limits specified in the EPL. It is recommended that TGO consider discussing with the EPA an amendment to the EPL that takes into account very high intensity rainfall event that result in the site dirty water dam capacities being exceeded.</p>	<p>Pre-rain Inspection checklist 26/11/17</p> <p>Incident Report Sediment Basin 1</p> <p>Discharge on 2 December 2017 dated 11/12/17</p>	<p>It is recommended that TGO consider discussing with the EPA an amendment to the EPL that takes into account very high intensity rainfall event that result in the site dirty water dam capacities being exceeded.</p>
24	<p><b>Water Discharges</b></p> <p>The concentration of Weak Acid Dissociable (WAD) cyanide in tailings discharged from the discharge point to the residue storage facility shall not exceed 20 mg/L (90th percentile) or 30 mg/ L (maximum).</p>	C	<p>A sample of daily production reports showing WAD concentration limits was sighted showing no exceedances.</p>	TGO Daily Production Report	There are no recommendations.
25	<p><b>Drainage and Flooding</b></p> <p>The Proponent shall ensure that surface water diversion structures constructed as part of the project do not increase the frequency of flooding on the Newell Highway.</p>	C	<p>This is set out in section 2.2.1 'Newell Highway' of the WMP which states that "Hydrological modelling was undertaken to estimate the likely effects of TGO on flooding of the Newell Highway. The modelling indicates that the maximum modelled flow rates within Gundong Creek are expected to reduce because of the Project. Therefore, the potential for overtopping of the Newell Highway is expected to remain comparable (or slightly reduced) because of the Project.</p>	<p>WMP</p> <p>Auditor Observations of water diversion structures during site inspection</p>	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation																				
26	<p><b>Compensatory Water Supply</b></p> <p>The Proponent shall provide a compensatory water supply to any owner on privately-owned land whose water entitlements are adversely impacted (other than an impact that is negligible) as a result of the project, in consultation with <a href="#">DPI Water</a>, and to the satisfaction of the <a href="#">Secretary</a>.</p> <p>The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributable to the project. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified, unless otherwise agreed with the landowner.</p> <p>If the Proponent and the affected landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the <a href="#">Secretary</a> for resolution.</p> <p>If the Proponent is unable to provide an alternative long-term supply of water, then the Proponent shall provide alternative compensation to the satisfaction of the <a href="#">Secretary</a>.</p> <p>Note: the Water Management Plan prepared in accordance with condition 32 shall describe the procedures for:</p> <ul style="list-style-type: none"> <li>assessing the impacts of the project on water entitlements on privately-owned land; and</li> <li>the provision of compensatory water supply.</li> </ul>	Not Triggered	TGO reported that there have been no incidences of owners on privately-owned land whose water entitlements have been adversely impacted.	Management Assertion	There are no recommendations.																				
27	<p><b>Water Performance Measures</b></p> <p>The Proponent shall comply with the performance measures in Table 8 to the satisfaction of the <a href="#">Secretary</a>.</p> <table border="1"> <caption>Table 8: Water management performance measures</caption> <thead> <tr> <th>Feature</th> <th>Performance Measure</th> </tr> </thead> <tbody> <tr> <td>Water management – General</td> <td>Minimise the use of clean water on site Minimise the need for make-up water from external potable water supplies</td> </tr> <tr> <td>Construction and operation of infrastructure</td> <td>Design, install and maintain erosion and sediment controls generally in accordance with the series Managing Urban Stormwater: Soils and Construction including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads</td> </tr> <tr> <td>Feature</td> <td>Performance Measure</td> </tr> <tr> <td></td> <td>Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the: <ul style="list-style-type: none"> <li>Guidelines for Controlled Activities on Waterfront Land (DPI 2007), or its latest version;</li> <li>Guidelines for fish habitat conservation and management – Chapter 4 (DPI 2013), or its latest version.</li> </ul> </td> </tr> <tr> <td>Clean water diversion &amp; storage infrastructure</td> <td>Design, install and maintain the clean water system to capture and convey the 100 year ARI flood Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site</td> </tr> <tr> <td>Sediment dams</td> <td>Design, install and maintain the dams generally in accordance with the series Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2C: Mines and Quarries Ensure the capacity of all sediment dams is sufficient to contain rainfall up to a 10 day 90 percentile rain event</td> </tr> <tr> <td>Mine water management system, including residue storage facility and associated collection pond</td> <td> <ul style="list-style-type: none"> <li>No unlicensed or uncontrolled discharge of mine water off-site (except in accordance with condition 23)</li> <li>Ensure that the capacity of the residue storage facility and associated collection pond is designed to meet the requirements of the Environmental Guidelines – Management of Tailing Storage Facilities (VIC DPI, 2004), or its latest version, and that the floor and walls are lined to achieve a permeability standard of at least 1 x 10<sup>-9</sup> m/s, unless otherwise agreed by the EPA and the Secretary</li> <li>Maintain adequate freeboard (i.e. minimum 500 mm) in the residue storage facility at all times</li> <li>All water storages on site that receive chemical or salt laden water, including the dewatering ponds, raw water dams and process water dams are lined to achieve a permeability standard of at least 1 x 10<sup>-9</sup> m/s, unless otherwise agreed by the EPA and the Secretary</li> <li>Maintain adequate freeboard (i.e. minimum 200 mm) 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The pre-rain checklist that is required to be completed prior to a rain event was sighted for this particular discharge event dated 26/11/17. The incident report sent to the EPA, DPE, NSC and DRG on 11/12/17 was sighted. The sampling results for surface water on this date were also sighted which showed exceedances of the limits within the EPL.</p>	<p>WMP</p> <p>GHD Report - Civil and Design Works for Drainage – Relocation of Basin 7a</p> <p>Pre-rain Inspection checklist 26/11/17</p> <p>Incident Report Sediment Basin 1 Discharge on 2 December 2017 dated 11/12/17</p>	Refer to recommendation 23 above.
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29	deleted	Noted	n/a	n/a	n/a																				
30	deleted	Noted	n/a	n/a	n/a																				

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
31	<p><b>Baseline Groundwater Monitoring</b></p> <p>The Proponent shall obtain at least 6 months of additional baseline groundwater monitoring within 12 months of the project approval. This monitoring shall:</p> <p>(a) be sourced from bores WYMB02, WYMB03, WYMB04, WYMB06 (as shown in Figure 4.19 of the EA), and a new bore in the Gundong Creek alluvium to be established in consultation with DPI Water; and</p> <p>(b) include a minimum of monthly measurements of standing water level and water quality parameters consistent with those monitored in the EA.</p>	C	<p>Baseline groundwater monitoring is set out in section 3.1.1 'Background groundwater levels' of the WMP. Six months of baseline groundwater data was sighted during the previous IEA which included all bores referenced in this condition.</p>	<p>WMP GHD IEA 2015</p>	<p>There are no recommendations.</p>
32	<p><b>Water Management Plan</b></p> <p>The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with the EPA and DPI Water, by a suitably qualified and experienced person(s) whose appointment has been approved by the Secretary, and submitted to the Secretary for approval by the end of January 2013, unless the Secretary agrees otherwise.</p>	NC	<p>Consultation is set out in section 1.3 of the WMP which states that consultation has occurred with the relevant authorities, however this consultation is not attached as an appendix and so it is unclear what consultation took place or if there were any comments provided to be addressed in the WMP. The previous IEA stated that this correspondence was included as Appendix 2 of the WMP. Evidence of DP&amp;E approval of the Groundwater consultant was sighted in the previous IEA. TGO prepared a WMP and submitted it to the DP&amp;E on 18 July 2013. The WMP was not approved as it did not include six months of baseline groundwater monitoring data.</p> <p>TGO advised that the updated WMP was referred to agencies including the DPE. DPE never formally replied to TGO. A copy of an email to DPE from TGO following up on the approval of the WMP was sighted and nothing further has been received by DPE.</p> <p>Note that the auditor considers that TGO has met the intent of this Condition. Comments provided from DPIW and EPA were also sighted, TGO has made reference comments in the DPIW document only to acknowledge the changes have been made in the WMP. However, final signoff by the Secretary is outstanding.</p>	<p>WMP GHD IEA 2016 WMP update email to DPE March 2017 Letter DPIW 18/04/16 Letter EPA 5/08/16</p>	<p>It is recommended that Consultation with agencies is attached as an appendix to the WMP. A table of any comments received from the agencies and how TGO has addressed these comments in the update of the WMP should be provided in each management plan.</p> <p>It is recommended that TGO again request approval from the Secretary.</p>
32a	<p><b>Water Management Plan</b></p> <p>In addition to the standard requirements for management plans (see Condition 3 of Schedule 5), this plan must include:</p> <p>(a) a Site Water Balance that:</p> <p>(i) includes details of:</p> <ul style="list-style-type: none"> <li>• sources and security of water supply;</li> <li>• water use on site;</li> <li>• water management on site;</li> <li>• off-site water discharges, including volume, timing and release point infrastructure requirements;</li> <li>• reporting procedures, including comparisons of the site water balance for each calendar year; and</li> </ul> <p>(ii) describe what measures would be implemented to minimise potable water use on site</p>	C	<p>This is set out in section 3 'Water Balance' and Appendix E 'Site Water balance' of the WMP.</p>	<p>WMP</p>	<p>There are no recommendations.</p>
32b(i)	<p><b>Water Management Plan</b></p> <p>This plan must include:</p> <p>(b) a Surface Water Management Plan that includes:</p> <p>(i) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could be affected by the project (including Gundong Creek);</p>	C	<p>Gundong Creek water quality monitoring is outlined in section 5.2.1 of the SWMP. It doesn't appear to include surface water flows data.</p> <p>Section 5.2.2 explains this, stating "The upstream monitoring site (SW1) is considered to be a reasonable reference site, however due to the ephemeral nature of Gundong Creek, water quality sampling opportunities are limited. Ongoing collection of surface water quality data may allow for the identification of SSTVs in the future however at present there is insufficient data to allow for the identification of SSTVs. It should be noted that the proposed trigger values are typically below the observed maximum pollutant levels recorded within Gundong Creek, suggesting that discharges from TGO are consistent with the proposed interim trigger values are not likely to result in an appreciable increase in pollutant concentrations within Gundong Creek".</p> <p>Detailed surface water quality data is included in Appendix A of the SWMP.</p>	<p>WMP</p>	<p>It is recommended that the SWMP be updated to include data on surface water flows.</p>



Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
32b(ii)	Water Management Plan This plan must include: (b) a Surface Water Management Plan that includes: (ii) a detailed description of the water management system on site, including: • clean water diversion systems, including the clean water and dirty water separation levee; • erosion and sediment controls, including sediment dam capacity; and • water storages;	C	This is set out in section 4.4.1 'Erosion', 4.4.2 'Sediment controls', Table 3-1 'Water storages' and section 3 'water management system' of the SWMP.	WMP  Auditor Observations of water management structures during site inspection	There are no recommendations.
32b(iii)	Water Management Plan This plan must include: (b) a Surface Water Management Plan that includes: (iii) detailed plans, including design objectives and performance criteria, for: • design and management of the final voids; • design and management of water storages including the residue storage facility and process water dams; and • control of any potential water pollution from the rehabilitated areas of the site;	NC	Design objectives and performance criteria for the design and management of final voids was not identified in the SWMP. Design and management of water storages is included in 6.1 'Storage capacity assessment' including design objectives of revised capacity volumes. Process water and residue storage facility is set out in section 3.5. Performance criteria of water storages does not appear to be included in the SWMP. Performance criteria for the control of any water pollution from the rehabilitated areas of the site could not be identified in the SWMP.	WMP  Auditor Observations of water management structures during site inspection	It is recommended that the SWMP is updated to include performance criteria for the design and management of final voids and the control of water pollution from rehabilitated areas of the site.
32b(iv)	Water Management Plan This plan must include: (b) a Surface Water Management Plan that includes: (iv) a program to monitor: • the effectiveness of the water management system; • potential leakage or spillage from on-site pipelines • surface water flows and quality, stream health and channel stability in Gundong Creek (in so far as it could potentially be affected by the project);	NC	The monitoring program is outlined in Section 5 of the SWMP which states that site inspections are undertaken on a weekly basis of all water management structures however the SWMP does not address the effectiveness of the water management system. Section 5 does not make reference to a program to monitor potential leakage or spillage from on-site pipelines. Gundong Creek monitoring is highlighted in section 5.2.1 of the SWMP however stream health and channel stability isn't referenced.	WMP	It is recommended that the SWMP is updated to address the requirements of this condition.
32b(v)	Water Management Plan This plan must include: (b) a Surface Water Management Plan that includes: (v) a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project; and	NC	The SWMP includes plans to respond to exceedances of trigger values however it does not include a plan to mitigate and/or offset any adverse surface water impacts.	WMP	It is recommended that the SWMP is updated to include a plan to mitigate and/or offset any adverse surface water impacts of the project.
32b(vi)	Water Management Plan This plan must include: (b) a Surface Water Management Plan that includes: (vi) reporting procedures for the results of the monitoring program	C	Monitoring is set out in section 5 of the SWMP which states that "Surface water quality monitoring of clean, dirty and process water management systems is to be undertaken by a suitably qualified professional. The samples collected are to be sent to a NATA accredited laboratory for testing". Monitoring results are included in section 5.2 of the WMP.	WMP	There are no recommendations.
32c(i)	Water Management Plan (c) a Groundwater Management Plan, that includes: (i) detailed baseline data on groundwater levels, yield and quality in the region, and privately-owned groundwater bores, that could be affected by the project;	C	Baseline groundwater monitoring has been undertaken with results being sighted in the previous IEA. Data is provided in the Appendices to the GWMP.	WMP	There are no recommendations.
32c(ii)	Water Management Plan (c) a Groundwater Management Plan, that includes: (ii) groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;	C	This is set out in section 3.3 'Trigger Values' of the GWMP.	WMP	There are no recommendations.
32c(iii)	Water Management Plan (c) a Groundwater Management Plan, that includes: (iii) a program to monitor: • groundwater inflows to the open cut and underground mining operations; • the impacts of the project on: - alluvial aquifers; and - any groundwater bores on privately-owned land that could be affected by the project; • the seepage/leachate from the residue storage facility, water storages, backfilled voids and the final void; and • the quality of groundwater to be re-used on the site;	C	Groundwater inflows to the open cut and underground mining operations are set out in section 4.1 of the GWMP. Monitoring is set out in section 3.2 of the GWMP. Water quality data sheets for 2016 were also sighted.	GWMP Water Quality Data sheets for 2016	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation																					
32c(iv)	Water Management Plan (c) a Groundwater Management Plan, that includes: (iv) a program for the on-going verification and refinement of the groundwater model, including the review and incorporation of additional baseline data obtained in accordance with condition 31, within 12 months of the project approval; and	C	This condition relates to "within 12 months of the project approval". TGO advised that the ground water model was revised for MOD 3 and is included in current version of the WMP. GHD were also commissioned to prepare a water resources assessment for the proposed modification (mod 3) which was sighted. Section 7.2 of the WMP states that "As part of confirming the predictions of the hydrogeological modelling undertaken for the Tomingley Gold Project, verification of the model results is required" and that "Hydrogeological modelling will be reviewed as required". TGO also reported that the ongoing verification of the model is covered by the monitoring requirements and trigger levels listed in the GWMP. Section 3.3 states that when triggers are exceeded, an investigation is undertaken.	GHD water resources assessment November 2015 Management Assertion	It is recommended that TGO revise the Groundwater Management Plan to include a program for on-going verification of the groundwater model.																					
32c(v)	Water Management Plan (c) a Groundwater Management Plan, that includes: (v) a plan to respond to any exceedances of the groundwater assessment criteria; and	C	Trigger Action Response Plans are included in section 8 of the WMP.	WMP	There are no recommendations.																					
32c(vi)	Water Management Plan (c) a Groundwater Management Plan, that includes: (vi) should geochemical testing reveal a higher risk of acid rock or saline drainage, the Proponent shall prepare an acid mine drainage strategy in consultation with DPI Water and to the satisfaction of the Secretary.	C	TGO advised that Geochemical testing undertaken for the feasibility study pre-2013 showed the soil is non-acid forming and that there isn't a higher risk of acid rock or saline drainage. There has been no mining carried out beyond the range of original geochem work carried out.	Management Assertion	There are no recommendations.																					
<b>BIODIVERSITY</b>																										
33	Biodiversity Offset The Proponent shall implement the offset strategy outlined in Table 9, and shown in Appendix 5, to the satisfaction of the Secretary. <i>Table 9: Biodiversity Offset</i> <table border="1"> <thead> <tr> <th>Community Type</th> <th>Offset Area to be Conserved (ha)</th> <th>Remnant Extension (Protection and Ameliorative Planting) (ha)</th> </tr> </thead> <tbody> <tr> <td>Inland Grey Box – Poplar Box – White Cypress Pine tall woodland on red loams (Benson 76)</td> <td>21.1</td> <td>21.5</td> </tr> <tr> <td>River Red Gum riverine woodland forest (Benson 78)</td> <td>13.1</td> <td>13.5</td> </tr> <tr> <td>Fuzzy Box – Inland Grey Box on alluvial brown loam soils (Benson 201)</td> <td>5.0</td> <td>26.0</td> </tr> <tr> <td>Poplar Box – Belah woodland on clay alluvial plains (Benson 56)</td> <td>1.9</td> <td>0</td> </tr> <tr> <td>Belah/ Black Oak Western Rosewood, Wilga Community (Benson 57)</td> <td>25.5</td> <td>0</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>66.6</b></td> <td><b>61.0</b></td> </tr> </tbody> </table>	Community Type	Offset Area to be Conserved (ha)	Remnant Extension (Protection and Ameliorative Planting) (ha)	Inland Grey Box – Poplar Box – White Cypress Pine tall woodland on red loams (Benson 76)	21.1	21.5	River Red Gum riverine woodland forest (Benson 78)	13.1	13.5	Fuzzy Box – Inland Grey Box on alluvial brown loam soils (Benson 201)	5.0	26.0	Poplar Box – Belah woodland on clay alluvial plains (Benson 56)	1.9	0	Belah/ Black Oak Western Rosewood, Wilga Community (Benson 57)	25.5	0	<b>TOTAL</b>	<b>66.6</b>	<b>61.0</b>	NC	The Biodiversity Offset Strategy states that "Consultation with OEH and LLS resulted in modified offset area agreed for a Conservation Property Vegetation Plan (PVP)". A PVP has been developed in consultation with NSW Office of Environment and Heritage (OEH) and approved by Local Land Services (LLS) as the framework under which TGO will manage and provide long-term security for the Biodiversity Offset Area. It is noted that the offset areas within the agreed PVP are larger than those in this condition, however because the Department of Planning are yet to approve the PVP, this is a NC. It is further noted that email evidence of TGO submitting the PVP to the DPE for comment was sighted.	BMP Inspection of off-set areas by the Auditor.	It is recommended that TGO remind the DPE to review and approve the PVP in writing.
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34	Biodiversity Offset By 31 January 2015, the Proponent shall make suitable arrangements to provide appropriate long-term security for the Offset Area in the strategy to the satisfaction of the Secretary.	C	Compliant as per previous IEA.	GHD IEA 2015	There are no recommendations.																					
35	Pre-Clearing Surveys Prior to and during vegetation clearing, the Proponent shall engage a suitably qualified and/or experienced ecologist to confirm the presence of nesting/roosting species in areas to be affected by clearing activities.	O	All clearing will be undertaken only following completion of the TGO "Clearing Permit", the template of which is attached in Appendix 3 of the BMP. Surveys are conducted by TGO environmental personnel and fauna experience was identified in the previous IEA.  It was advised that TGO Environmental Officer, Cameron Hope, undertakes the inspections and approves clearing without filling out the clearing permit.  Cameron has a Bachelors degree in biological science with a double major in zoology and botany. Note that the Auditor is satisfied with the qualifications of the TGO environmental officer.	BMP GHD IEA 2016 Management Assertion Cameron Hope CV	It is recommended that TGO fully implement the record (Clearing Permit) keeping requirements detailed in the BMP.																					
36	Pre-Clearing Surveys Should any Grey-crowned Babblers be identified on the site, the Proponent shall develop measures to either relocate the birds or protect them and their roosting habitat from disturbance during vegetation clearing and construction works.	C	Section 8 of the BMP states that "In order to manage risk associated with nesting Grey-crowned Babblers on site all TGO staff are made aware of the species. There are no known babbler habitat areas within the current operational mining/processing areas". This was confirmed during the site inspection, when management advised that no trees or habitat for the babbler is in the operation areas of the mine. TGO also advised that no Babblers have been identified during vegetation clearing or construction works during the audit period.  It was advised that fauna monitoring is undertaken 2 yearly however no monitoring results were provided to show that no Babblers have been sighted.	BMP Induction video and PowerPoint	It is recommended that TGO undertake the 2 yearly monitoring as was advised during the audit and keep records of this monitoring.																					

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
37a	Biodiversity Management Plan The Proponent shall prepare a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with OEH, and submitted to the Secretary for approval by the end of January 2013, unless the Secretary agrees otherwise;	NC	Compliant as per GHD IEA. Section 4 of the BMP 'Consultation' details the consultation undertaken with OEH and Local Land Services for the preparation of the BMP. Appendix 1 of the BMP provides full details of the consultation undertaken. TGO have sent the BMP to the DPE for approval (email evidence sighted) however are yet to receive formal response from DPE approving the plan.	BMP	It is recommended that TGO remind the DPE to review and approve the BMP in writing.
37b	Biodiversity Management Plan This plan must: (b) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;	C	Integration of biodiversity and rehabilitation is occurring through the Biodiversity and Rehabilitation Monitoring Program which aims to measure and assess the effectiveness of conservation, revegetation and rehabilitation measures implemented on site and within the TGO Biodiversity Offset Area. The 2015, 2016 and 2017 Rehabilitation and Biodiversity Monitoring Reports were sighted which include data on the progress of these areas.	BMP	There are no recommendations.
37c	Biodiversity Management Plan This plan must: (c) describe the short, medium, and long term measures that would be implemented to: (i) manage the remnant vegetation and habitat on the site and in the offset area/s (if and when applicable); and (ii) implement the biodiversity offset strategy (if and when applicable), including detailed performance and completion criteria;	NC	Section 6.2 of the BMP provides details of the management strategies that will be implemented to manage remnant vegetation and habitat within the Biodiversity Offset Area, however it does not include measures for the site. These management strategies are classified as 'short-term', 'mid-term' and 'long' term. Managing habitat integrity is set out in section 6.3.3 of the BMP.  Performance criteria are included in Section 11 of the BMP. However completion criteria are not provided within the BMP.  A Property Vegetation Plan (PVP) has been developed in consultation with NSW Office of Environment and Heritage (OEH) and approved by Local Land Services (LLS) as the framework under which TGO will manage and provide long-term security for the Biodiversity Offset Area. The PVP is attached as Appendix 2 to the BMP.	BMP	It is recommended that detailed completion criteria are included in the BMP.
37d	Biodiversity Management Plan This plan must: (d) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);	NC	Table 7 of the BMP details the response actions to managing identified risks in the biodiversity offset area. Performance criteria are included in Section 11 of the BMP. However completion criteria are not provided within the BMP.	BMP	It is recommended that completion criteria for evaluating the performance of the biodiversity offset strategy is included in the BMP.
37e(i)	Biodiversity Management Plan This plan must: (e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: (i) enhancing the quality of existing vegetation and fauna habitat;	C	This is set out in Section 7 'Flora Management' and Section 8 'Fauna Management' of the BMP. Local benchmark criteria for each vegetation community type are presented in Table 4. Vegetation community descriptions are provided in Section 6.3.1 which will be used to guide the enhancement of the Biodiversity Offset Area. Vegetation management within the Biodiversity Offset Area, including revegetation programs, will be undertaken in accordance with the relevant commitments from the PVP, these PVP commitments are outlined throughout the BMP.	BMP	There are no recommendations.
37e(ii)	Biodiversity Management Plan This plan must: (e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: (ii) restoring native vegetation and fauna habitat on the biodiversity areas and rehabilitation area through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary);	NC	Procedures for natural regeneration is addressed in Section 7 'Flora Management'. This section states "Natural regeneration is occurring readily and propagation and supplementary planting efforts are likely to be used for species that are not naturally regenerating or have notably reduced local populations. To this end natural regeneration has been highly successful and this requirement may not be required". Detailed description of procedures to be implemented for restoring native vegetation through focusing on: targeted vegetation establishment and the introduction of naturally scarce fauna habitat features could not be identified in the BMP. Fauna habitat is set out in Section 8 'Fauna Management' of the BMP.	BMP	It is recommended that the BMP is updated to include a description of procedures to be implemented for restoring native vegetation through focusing on: targeted vegetation establishment and the introduction of naturally scarce fauna habitat features.
37e(iii)	Biodiversity Management Plan This plan must: (e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: (iii) maximising the salvage of resources within the approved disturbance area - including vegetative, soil and cultural heritage resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;	NC	These requirements are set out in Section 7 'Flora Management' of the BMP.  Soil and cultural heritage are identified on the clearing permit however detailed procedures for maximising salvage of heritage and soil resources could not be identified in the BMP.	BMP	It is recommended that the BMP is updated to include a description of procedures that have been implemented to maximise salvage of resources within the approved disturbance area for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
37e(iv)	Biodiversity Management Plan This plan must: (e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: (iv) collecting and propagating seed;	C	These requirements are set out in Section 7 'Flora Management' of the BMP.	BMP	There are no recommendations.
37e(v)	Biodiversity Management Plan This plan must: (e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: (v) minimising the impacts on fauna on site, including pre-clearance surveys and minimising the potential exposure to tailings;	C	This is set out in Section 8 'Fauna Management' of the BMP. This section includes the undertaking of pre-clearance surveys. Procedures for minimising impacts on fauna in regards to exposure to tailings is set out in section 8.1.1.	BMP	There are no recommendations.
37e(vi)	Biodiversity Management Plan This plan must: (e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: (vi) controlling weeds and feral pests;	C	This is set out in Section 9.2 'Weed Management' and 9.3 'Management of Vertebrate Pests' of the BMP.	BMP	There are no recommendations.
37e(vii)	Biodiversity Management Plan This plan must: (e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: (vii) controlling erosion;	C	This is set out in Section 6.5 of the BMP. A more detailed erosion procedure is provided within the Water Management Plan.	BMP WMP	It is recommended that the erosion procedures within the water management plan are also provided within the BMP to ensure compliance with this condition.
37e(viii)	Biodiversity Management Plan This plan must: (e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: (viii) managing grazing and agriculture on site;	C	This is set out in Section 9.4 and 11 of the BMP.	BMP	There are no recommendations.
37e(ix)	Biodiversity Management Plan This plan must: (e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: (ix) controlling access; and	C	This is set out in Section 9.1 and Table 7 of the BMP.	BMP	There are no recommendations.
37e(x)	Biodiversity Management Plan This plan must: (e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: (x) bushfire management;	C	This is set out in Section 9.5 and Table 7 of the BMP.	BMP	There are no recommendations.
37f	Biodiversity Management Plan This plan must: (f) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;	O	This is set out in Section 10 'Biodiversity Monitoring Program' of the BMP. This section states that "The aim of the Biodiversity and Rehabilitation Monitoring Program is to measure and assess the effectiveness of conservation, revegetation and rehabilitation measures implemented on site and within the TGO Biodiversity Offset Area". This section also states that "Fauna monitoring surveys occur in spring or summer every two years".  Section 11.1 outlines reporting requirements under the BMP. Under this section, it is not clear if a compliance report must be prepared to review the progress of the Project in meeting the requirements of this BMP. As such, it is not clear if TGO is addressing the effectiveness of measures taken under the BMP and progress against the relevant criteria.	BMP	It is recommended that the BMP is updated to:  1. note that the monitoring is 'seasonal annual' to better evidence compliance with this Condition. 2. specifically state that a report is prepared that addresses the effectiveness of measures taken under the BMP and provides progress against the relevant performance and completion criteria.
37g	Biodiversity Management Plan This plan must: (g) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and	C	This is set out in Table 7 'Biodiversity offset risk management strategy and trigger action response plan' of the BMP.	BMP	There are no recommendations.
37h	Biodiversity Management Plan This plan must: (h) include details of who would be responsible for monitoring, reviewing, and implementing the plan.	C	This is set out in Section 12 'Roles and Responsibilities' of the BMP.	BMP	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
38	<p>Conservation Bond</p> <p>Within three months of the approval of the Biodiversity Management Plan, the Proponent shall lodge a conservation bond with the Department to ensure that the biodiversity offset is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.</p> <p>The sum of the bond shall cover the full cost of implementing the Biodiversity Offset Strategy and be verified by a suitably qualified rehabilitation specialist or quantity surveyor.</p> <p>If the biodiversity offset is implemented to the satisfaction of the <a href="#">Secretary</a>, the Secretary will release the conservation bond. If the offset strategy is not implemented to the satisfaction of the Secretary, the Secretary will call in all or part of the conservation bond, and arrange for the satisfactory implementation of the biodiversity offset.</p> <p>If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all or part of the conservation bond, and arrange for the satisfactory completion of the relevant works.</p> <p>With the agreement of the <a href="#">Secretary</a>, this bond may be combined with the rehabilitation security deposit administered by DRE.</p>	C	Sighted email from Karen Brown (TGO) to Kane Winwood (DPE) on 20/06/2014 submitting the conservation bond.	Email correspondence between TGO and Kane Winwood 20/06/2014 Conservation Bond	There are no recommendations.
<b>HERITAGE</b>					
39a	<p>Heritage Management Plan</p> <p>The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the <a href="#">Secretary</a>. This plan must:</p> <p>(a) be prepared by a suitably qualified and experienced person(s) whose appointment has been endorsed by the <a href="#">Secretary</a>;</p>	C	A Cultural Heritage Management Plan (CHMP) has been prepared for the project and was approved by the DP&E. The appointment of OzArk Environmental and Heritage Management's Jodie Benton as the suitably qualified person to prepare the CHMP was endorsed by the Secretary. The email of appointment showing this endorsement is attached in Appendix 2 of the CHMP dated 6/08/2012.	CHMP	There are no recommendations.
39b	<p>Heritage Management Plan</p> <p>This plan must:</p> <p>(b) be prepared in consultation with OEH and the Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);</p>	C	Compliant as per previous IEA. Section 1 states that "This document has been developed in consultation with registered Aboriginal community stakeholders and the NSW Office of Environment and Heritage (OEH)". Appendix 2 adequately outlines the consultation with OEH. Appendix 3 provides a 'Community Engagement Protocol' signed by Aboriginal stakeholders. This plan has been developed in consultation with Aboriginal stakeholders and on 13th June 2012 a final meeting was held to review the CHMP and confirm its adequacy. From this meeting it was agreed that the CHMP is comprehensive and adequate. Minutes from this meeting are included as Appendix 3.	CHMP GHD IEA 2015	There are no recommendations.
39c	<p>Heritage Management Plan</p> <p>This plan must:</p> <p>(c) be submitted to the Secretary for approval by the end of January 2013, unless the <a href="#">Secretary</a> agrees otherwise;</p>	C	Compliant as per previous IEA. The CHMP was approved by the DP&E on 29/10/2012.	CHMP GHD IEA 2015	There are no recommendations.
39d(i)	<p>Heritage Management Plan</p> <p>This plan must:</p> <p>(d) include the following for the management of Aboriginal heritage:</p> <p>(i) a description of the measures that would be implemented for:</p> <ul style="list-style-type: none"> <li>• protecting, monitoring and/ or managing heritage items on site;</li> <li>• implementing proposed archaeological investigations and/ or salvage measures for heritage items on site;</li> <li>• managing the discovery of any human remains or previously unidentified Aboriginal objects on site;</li> <li>• maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on site;</li> <li>• on-going consultation with the Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on site; and</li> <li>• ensuring workers on-site receive suitable heritage inductions prior to carrying out works on the site, and that suitable records are kept of these inductions;</li> </ul>	C	The requirements of this condition are set out in the following sections:	CHMP	There are no recommendations.
			<ul style="list-style-type: none"> <li>• Section 7 'MANAGEMENT OF THE ABORIGINAL HERITAGE ITEMS'.</li> <li>• Section 7 'MANAGEMENT OF THE ABORIGINAL HERITAGE ITEMS'.</li> <li>• Section 7.3.3 'General Management Measures / Unidentified Finds Protocol'</li> <li>• Section 5.3 'ACCESS TO ABORIGINAL HERITAGE ITEMS'</li> <li>• Section 5.1 'ABORIGINAL COMMUNITY CONSULTATION'</li> <li>• Section 16 'COMPETENCE TRAINING AND AWARENESS'</li> </ul>		

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
39d(ii)	Heritage Management Plan This plan must: (d) include the following for the management of Aboriginal heritage: (ii) a strategy for the storage of any heritage items salvaged on site, both during the project and in the long term;	C	This is set out in section 7 'Management of the Aboriginal Heritage Items' of the CHMP. In particular section 7.2 states "As discussed with the local Aboriginal community groups, there is a preference for protecting artefacts in situ, rather than collecting and removing them from their context".	CHMP	There are no recommendations.
39e(i)	Heritage Management Plan This plan must: (e) include the following for the management of non-Aboriginal heritage: (i) a description of the measures that would be implemented for: • protecting, monitoring and/ or managing heritage items on site; • managing the discovery of any previously unidentified non-Aboriginal objects on site; and • ensuring workers on-site receive suitable heritage inductions prior to carrying out works on the site, and that suitable records are kept of these inductions; and	C	This is set out in section 8 'Management of the Non-Aboriginal Heritage Items' of the CHMP. The induction includes reference to heritage items on site. Training records were also sighted.	CHMP Induction records Induction	There are no recommendations.
39e(ii)	Heritage Management Plan This plan must: (e) include the following for the management of non-Aboriginal heritage: (ii) a strategy for the storage of any heritage items salvaged on site, both during the project and in the long term.	NC	No information is included in the CHMP for the storage of salvaged historic heritage items.	CHMP	It is recommended that the Heritage Management Plan is revised to include a strategy for the storage of any heritage items salvaged on site, both during the project and in the long term.
TRANSPORT					
40	Dangerous Goods Transportation of all dangerous goods to or from the site shall be undertaken in strict accordance with Australian Code for the Transport of Dangerous Goods by Road and Rail.	C	This is set out in Section 4.2 'Transport' of the Hazardous Materials Management Plan (HMMP). It was advised that TGO only use reputable companies with the necessary controls in place and that this is the responsibility of the contractor. Sighted the TGO agreement for the supply of Hydrochloric Acid & Caustic. This included a commitment to 'comply with...all applicable laws, regulations and industrial awards and agreements'. There is no specific reference to the Australian Dangerous Goods Code, however there is reference to this clause.	HMMP Contract - Goods and Services - HCL Caustic	There are no recommendations.
41	Road Upgrades By 31 March 2014, the Proponent shall upgrade Tomingley West Road between the intersection with Narromine-Tomingley Road and the intersection with the mine access road, to the satisfaction of Council.	C	Compliant as per previous IEA.	GHD IEA 2015 Auditor observations during site inspection	There are no recommendations.
42	Access Road Construction By 31 March 2014, the Proponent shall construct the site access road intersection with Tomingley West Road in accordance with the requirements of Council.	C	Compliant as per previous IEA.	GHD IEA 2015 Auditor observations during site inspection	There are no recommendations.
43	Operating Conditions The Proponent shall ensure that heavy vehicle movements associated with mining operations do not exceed 8 per day (4 in and 4 out), when measured as a daily average over any calendar month.	C	The previous IEA recommended that TGO maintain records of heavy vehicle movements to demonstrate compliance with this condition. TGO advised that 12 months of recording was undertaken as a sample to check compliance and that TGO were compliant with this condition. The Heavy Vehicle Monitoring results were sighted which show an average of 3.1 trucks into site per day.	Heavy Vehicle Monitoring results - truck register	There are no recommendations.
44a	Traffic Management Plan The Proponent shall prepare and implement a Traffic Management Plan to the satisfaction of the Secretary. The plan shall: (a) focus on traffic management along Tomingley West Road and through the village of Tomingley to minimise the potential for conflicts between project-related traffic and other road users;	C	The Traffic Management Plan was developed in August 2012 as a part of the EMS, with latest revision (4) published September 2016. DPE approved the plan on 5/12/2016, a letter of which was sighted. Section 4 'Management Measures' of the TMP refers to the mitigation measures to be undertaken in order to manage traffic flows along Tomingley West Road, and through the village of Tomingley. Tomingley West Road has been upgraded and widened to minimise potential for conflicts between project-related traffic and other road users.	TMP Approval letter of TMP from DPE dated 5/12/16	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
44b	Traffic Management Plan The plan shall: (b) describe the measures to be implemented to ensure the effective operation of the intersections between the project site and the Newell Highway, including the site access road and Tomingley West Road intersection and the Tomingley-Narromine Road and Newell Highway intersection; and	C	Section 4.1 addresses the management measures for effective operation of the Intersection of Newell highway and the Narromine-Tomingley Road. Section 4.2 addresses the management measures for effective operation of the Intersection of Tomingley West Road and the Narromine-Tomingley Road. Proposed traffic measures for both mentioned intersections of 4.1 and 4.2 are indicated on Drawing 01G_E19 in Appendix B of the TMP. Section 4.4 addresses the management measures for effective operation of the Intersection of Tomingley West Road and the Main Site Access Road. Proposed traffic measures for Section 4.4 are indicated on Drawing 01C_E18 and 01C_E19 in Appendix B of the TMP.	TMP	There are no recommendations.
44c	Traffic Management Plan The plan shall: (c) be developed in consultation with Council and RMS, and must be submitted for the approval of the Secretary prior to the commencement of construction.	C	Section 1.5 Consultation, outlines the method of consultation conducted with NSW Transport, Roads and Maritime Services, and Narromine Shire Council. Minutes of meeting with RMS on 17/08/2012 are provided in Appendix A of the TMP. The TMP has been approved by the DP&E prior to construction.	TMP	There are no recommendations.
<b>VISUAL</b>					
45a	Operating Conditions The Proponent shall: (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project;	C	No. S3C45(a) of the Compliance Schedule (Appendix 2) in the Environmental Management Strategy states that the indicator of compliance is 'Ongoing', last revised on 21/12/2017. TGO have constructed a vegetated amenity bund and vegetation screening around the site. The online complaints register for 2015, 2016 and 2017 was reviewed and found to have two complaints relating to off-site lighting impacts in 2016. These complaints were in regards to lighting from the waste rock dump shining towards their property. Action taken included the Mining Shift supervisor being contacted and the lighting plant relocated and A new lighting location guide has been developed and rolled out to mining team. Reflective signs located on fences in line with adjoining dwellings and lighting guide attached to lighting plant. Since there were no complaints regarding lighting in 2017, this condition has been assessed as compliant.	Site inspection Complaints register 2015, 2016, 2017 Environmental Strategy	There are no recommendations.
45b	Operating Conditions The Proponent shall: (b) establish and maintain an effective vegetation screen and vegetated amenity bund consistent with the documents in condition 2 of schedule 2;	C	Compliant as per previous IEA. It was advised that weeding and slashing occurs on an as needed basis to maintain the area.	Auditor observations during the site inspection	There are no recommendations.
45c	Operating Conditions The Proponent shall: (c) ensure no outdoor lights shine above the horizontal; and	C	TGO advised that some issues had occurred with mobile lighting plant, so a stick up guide (Lighting Plants Instructions) was created and stuck inside the lighting houses. Reflective signs are also attached to the nearest receivers to ensure compliance with this condition. Upon site inspection, it was clear that outdoor lighting was pointed below the horizontal.	Auditor Observations during the Site Inspection Lighting Plants Instructions	There are no recommendations.
45d	Operating Conditions The Proponent shall: (d) ensure that all external lighting associated with project complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Secretary.	C	A copy of the standard was sighted by the auditors during the site inspection, an obtrusive lighting report had also been undertaken for the site.	Site Inspection Obtrusive Lighting report Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting	There are no recommendations.
46	Additional Visual Mitigation Measures Upon receiving a written request from the owner of any residence on privately-owned land which has, or would have, significant direct views of the project operations, the Proponent shall implement visual mitigation measures (such as landscaping treatments or vegetation screens) on the land in consultation with the landowner. These measures must be reasonable and feasible, and directed toward minimising the visibility of the project operations from the affected residence.  If within three months of receiving this request from the landowner, the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.	C	No visual amenity requests have been received.	Management Assertion	There are no recommendations.



Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
HAZARDOUS MATERIALS					
47	Final Hazard Analysis The Proponent shall prepare a Final Hazards Analysis (FHA) for the project to the satisfaction of the Secretary, in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis. Note: if the project design is no different from that assessed in the Preliminary Hazard Analysis (PHA), then the Secretary will accept the PHA as the FHA.	O	Section 5.12 of the Hazardous Material Management Plan (HMMP) states: 'Sherpa Consulting Pty Ltd conducted a Final Hazard Analysis (FHA) of the LOX system prior to commencing operation.' The FHA was submitted prior to commencement of operations and approved by the NSW Department of Planning and Infrastructure (DPI). TGO proposed to introduce a change to the process that requires storage and use of liquid oxygen (LOX), and has requested that Sherpa prepare a hazard analysis for the change to determine if there are any significant effects on the offsite risk levels. This report was sighted by the auditor. However approval of this risk assessment report was not sighted.	HMMP Risk Assessment Proposed LOX by Sherpa Consulting 2014	It is recommended that TGO submit the updated FHA by Sherpa Consulting to the DPE for approval.
48a	Hazardous Materials Management Plan The Proponent shall prepare and implement a Hazardous Materials Management Plan for the project to the satisfaction of the Secretary. The plan must: (a) be prepared in consultation with relevant government agencies including Council, RMS, EPA, DPI Water, WorkCover NSW and DRE;	C	The HMMP was developed in May 2013 as a part of the EMS, with latest revision (4) published April 2017. Section 3.3 'Consultation' of the HMMP outlines the methodology of consultation taken with RMS, NSC, DRE, DPI-Water, WorkCover and EPA. Evidence of consultation (emails) is provided in Appendix 2 of the HMMP.	HMMP	There are no recommendations.
48b	Hazardous Materials Management Plan The plan must: (b) be consistent with the International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold;	C	Section 3.4 'The International Cyanide Management Code' of the HMMP states 'The cyanide management strategy adopted by TGO is consistent with the standards of practice outlined in the International Cyanide Management Code (ICMC).'  Section 5.2.1 'Cyanide Production' of the HMMP states 'TGO will only purchase cyanide from manufacturers certified as compliant with the ICMC'. TGO advised that they only source from ORICA. Sighted Supply Agreement between TGO and Orica executed 25 November 2013. Supporting procedures for the management of Cyanide were also sighted such as the 'Plant Equipment Cyanide Decontamination' and 'Responding to Spill Containing Cyanide'.	HMMP Cyanide procedures Supply Agreement between TGO and Orica 25/11/13	There are no recommendations.
48c	Hazardous Materials Management Plan The plan must: (c) be submitted to the Secretary for approval prior to commencing mining operations;	NC	Section 3.1.1 of the HMMP states that 'the third modification to PA 09_0155 (MOD 3) was approved by DPE in July 2016 which was after the commencement of mining operations.'  It is also noted that in the previous IEA (2015), "No evidence of correspondence with the DG was sighted to confirm submission and/or approval". An email sent to DPE on 22/06/17 requesting approval of the HMMP was sighted.	HMMP Email correspondence DPE	It is recommended that TGO follow up with DPE for approval of the plan.
48d	Hazardous Materials Management Plan The plan must: (d) describe the measures that would be implemented to: (i) ensure sodium cyanide and other toxic chemicals are stored and handled on the site in accordance with AS/NZ 4452 – The Storage and Handling of Toxic Substances; and (ii) ensure the transportation of hazardous materials to or from the site is undertaken in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 11 – Route Selection and the Australian Code for the Transport of Dangerous Goods by Road and Rail – current version; and	C	(i) This is set out in Section 4.3 'Storage' of the HMMP .  (ii) This is set out in Section 4.2 'Transport' of the HMMP. TGO advised that they only source from ORICA. Sighted Supply Agreement between TGO and Orica executed 25 November 2013. The route selection report prepared by Sherpa was sighted and was undertaken to address this requirement relating to addressing the HIPAP11 guidelines.	HMMP Supply Agreement between TGO and Orica 25/11/13 Transport Hazard Analysis (HIPAP 11) 29/04/14	There are no recommendations.
48e	Hazardous Materials Management Plan The plan must: (e) detail the emergency procedures for the Project consistent with the Department's Hazardous Industry Planning Advisory Paper No. 1 – Emergency Planning.	C	Section 4.4.3 'Emergency Response' of the HMMP states that emergency procedures are consistent with DPE Planning Advisory Paper No.1 - Emergency Planning. Section 3.2 of the HMMP states that "A detailed emergency management plan will be prepared and implemented for the site that covers emergency response plans for hazardous materials including explosives". The Emergency Management Plan was sighted.	HMMP Emergency Management Plan August 2017	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation												
WASTE																	
49a	The Proponent shall: (a) minimise the waste generated by the project;	C	Section 6 'Objectives, Targets and Performance Indicators' of the Environmental Strategy states that one of the key environmental performance objectives of TGO are to: 'Minimise pollution and waste generation'. However the key performance indicators do not include any reference to waste minimisation.  The Monthly Environmental Monitoring Reports do not include any reference to waste and neither does the AEMR. No Waste Management Plan has been prepared for the site. During the site inspection it was noted that the following waste streams are recycled: cardboard, metal, hydrocarbons, wood waste. Signage on skips was provided. The induction also includes waste separation and it was advised that there are no issues with contamination of recycling bins.	Environmental Strategy Monthly Environmental Monitoring Reports AEMR 2016	It is recommended that an operational Waste Management Plan is developed for the site, setting targets for waste minimisation. The Environment Strategy should also be revised to include performance indicators for waste minimisation.												
49b	The Proponent shall: (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of; and	O	Section 2.3.7 'Waste Management' of the Mining Operations Plan Part 1 (MOPP1) states that 'non-production waste generated across this MOP period will be collected on Mine Site and removed for disposal or recycling by a suitably Qualified contractor.'  Table 5 of the Mining Operations Plan Part 1 presents estimated generation of non-production waste and describes how each class of waste is stored and removed from site.  During the site inspection it was confirmed that waste oil and grease is stored in a banded storage area. It was noted that a used battery was seen to be placed near bins in an unbanded area.  The waste reports for waste collection were sighted and it is noted that 2016 data from March to December are blank.	Mining Operations Plan Part 1 Site Inspection TGO Waste Report 2016 and 2017	It is recommended that used batteries are provided with a nominated location that is banded. Ensure staff are aware of the disposal location for used batteries.  It is recommended that waste data is retained for all waste collection.												
49c	The Proponent shall: (c) manage on-site sewage treatment disposal in accordance with the requirements of Council, to the satisfaction of the Secretary	C	Table 2 of the MOPP1 states that the on site sewerage management system licence approval was achieved 30 September 2013, by NRC. The previous IEA recommended that TGO install bollards around the inlet to the Sewerage Treatment Plant and around the STP to protect from onsite traffic movements. Installation of the bollards has been completed. TGO advised that the plumber undertakes quarterly checks of the system, STP Maintenance Checklists undertaken by Peter Kinslea Plumbing.	Mining Operations Plan Part 1 Site Inspection STP Maintenance Checklist 9/10/17 and 4/10/16	There are no recommendations.												
REHABILITATION																	
50	Within three years of the date of this approval, the Proponent shall investigate the feasibility of filling the Wyoming Three open cut pit void as part of the rehabilitation of the site, in consultation with DRE.	C	Filling the Wyoming Three open cut pit void as part of the rehabilitation of the site has been identified in the Second MOP - Amendment 2. Approval of this MOP from DRE on 29/7/16 was sighted.	Second MOP - Amendment 2 (MOP A2) Management Assertion DRE Approval letter 29/7/16	There are no recommendations.												
51	Rehabilitation Objectives The Proponent shall rehabilitate the site to the satisfaction of the DRE. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA (as reproduced in Appendix 6), and comply with the objectives in Table 10.  <i>Table 10: Rehabilitation Objectives</i>	C	The Rehabilitation Management Plan is incorporated into the MOP. The objectives outlined in Table 10 of the Project Approval are included in table 16 'Measurement of Rehabilitation Performance' and Table 12 'Rehabilitation Objectives and Targets' of the RMP.  The AEMR reports on the progressive rehabilitation on site.	MOP A2 AEMR 2016	There are no recommendations.												
	<table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>Mine site (as a whole) including final voids</td> <td> <ul style="list-style-type: none"> <li>Safe, stable and non-polluting</li> <li>Final land use compatible with surrounding land uses</li> <li>Final landforms designed to consider micro-relief, natural drainage lines and minimize visual prominence by integration with the surrounding landscape.</li> <li>Restore self-sustaining ecosystems, including establishing local native plant species.</li> <li>Minimise visual impact of final landforms as far as is reasonable and feasible.</li> </ul> </td> </tr> <tr> <td>Final voids</td> <td> <ul style="list-style-type: none"> <li>Negligible instability risk</li> </ul> </td> </tr> <tr> <td>Surface infrastructure</td> <td>To be decommissioned and removed, unless the Secretary, DRE agrees otherwise</td> </tr> <tr> <td>Other land</td> <td>Establish at least 61 ha of open woodland as part of the Remnant Extension described in Table 9.</td> </tr> <tr> <td>Community</td> <td>Minimise the adverse socio-economic effects associated with mine closure</td> </tr> </tbody> </table>	Feature	Objective	Mine site (as a whole) including final voids	<ul style="list-style-type: none"> <li>Safe, stable and non-polluting</li> <li>Final land use compatible with surrounding land uses</li> <li>Final landforms designed to consider micro-relief, natural drainage lines and minimize visual prominence by integration with the surrounding landscape.</li> <li>Restore self-sustaining ecosystems, including establishing local native plant species.</li> <li>Minimise visual impact of final landforms as far as is reasonable and feasible.</li> </ul>	Final voids	<ul style="list-style-type: none"> <li>Negligible instability risk</li> </ul>	Surface infrastructure	To be decommissioned and removed, unless the Secretary, DRE agrees otherwise	Other land	Establish at least 61 ha of open woodland as part of the Remnant Extension described in Table 9.	Community	Minimise the adverse socio-economic effects associated with mine closure				
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Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
52	<p>Progressive Rehabilitation</p> <p>The Proponent shall carry out rehabilitation of the site progressively, that is, as soon as reasonably practicable after disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies shall be employed when areas prone to dust generation cannot yet be permanently rehabilitated.</p> <p>Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the project.</p>	C	<p>Section 7.2 of the MOP A2 provides detail on the proposed rehabilitation to be completed progressively each year.</p> <p>Table 18 of the MOP A2 addresses the status of rehabilitation at the commencement of the MOP. The following Primary Domains have been labelled as stabilisation complete or in progress/ongoing: 3. Water Management Area, 5b Soil Stockpiles, 7. Rehabilitated Areas, 9. Conservation and Biodiversity Offset Area and 10. Rural Land. The other Primary Domains remain an Active Mining Area.</p> <p>Section 8. Rehabilitation of the Annual Review 2016 outlines the rehabilitation activities undertaken during the reporting period, as well as objectives for the next reporting period.</p>	MOP A2 AEMR 2016	There are no recommendations.
53a	<p>Rehabilitation Management Plan</p> <p>The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary, DRE. This plan must:</p> <p>(a) be prepared in consultation with the Department, OEH, EPA, DPI Water and Council;</p>	C	<p>Section 1.5.2 Government Agency Consultation of MOP A2 states that the DP&amp;E, DPI-Water, EPA, OEH, RMS, Dam Safety Committee, and NSC were contacted by email during the preparation of the Environmental Assessment for PA 09_0155 MOD 3 (RWC, 2015).</p> <p>Correspondence on the MOP A2 was not sought from the above listed agencies due to 'the previous correspondence completed in the preparation of previous MOPs and amendments.' Evidence of previous input into earlier MOPs is available. Approval of the MOP A2 by DRE was sighted.</p>	MOP A2 DRE Approval letter 29/7/16	There are no recommendations.
53b	<p>Rehabilitation Management Plan</p> <p>This plan must:</p> <p>(b) be submitted to the Secretary, DRE for approval by the end of March 2013, unless the Secretary agrees otherwise;</p>	C	<p>Compliant as per previous IEA.</p> <p>Section 1.5.2 Government Agency Consultation of MOP A2 states that 'A final draft ... was provided to the Division of Resources and Energy and comments received were taken into account when finalising the document.'</p>	MOP A2	There are no recommendations.
53c	<p>Rehabilitation Management Plan</p> <p>This plan must:</p> <p>(c) be prepared in accordance with any relevant DRE guideline;</p>	C	<p>Compliant as per previous IEA.</p>	GHD IEA 2015	There are no recommendations.
53d	<p>Rehabilitation Management Plan</p> <p>This plan must:</p> <p>(d) outline the procedures to be implemented to achieve the rehabilitation objectives in condition 51;</p>	C	<p>Section 7.2 of the MOP A2 provides detail on the proposed rehabilitation to be completed progressively each year.</p>	MOP A2	There are no recommendations.
53e	<p>Rehabilitation Management Plan</p> <p>This plan must:</p> <p>(e) describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy;</p>	C	<p>Table 4 of the MOP A2 donates 'Conservation and Biodiversity Offset Area' as a major Domain. Table 13 of the MOP A2 states the Biodiversity Target as 'conserve at least 66.6ha of remnant native vegetation...in accordance with a Biodiversity Offset Strategy.' The monitoring program for rehabilitation and biodiversity has been combined.</p>	MOP A2	There are no recommendations.
53f	<p>Rehabilitation Management Plan</p> <p>This plan must:</p> <p>(f) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);</p>	C	<p>Table 16 of the MOP provides the rehabilitation performance indicators, measures and relinquishment criteria developed for the Mine to achieve the nominated post mining land use goals and rehabilitation objectives.</p>	MOP A2	There are no recommendations.
53g	<p>Rehabilitation Management Plan</p> <p>This plan must:</p> <p>(g) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, and address all aspects of rehabilitation including mine closure, final landform, and final land use;</p>	C	<p>Section 4 of the MOP addresses the regulatory requirements of management of post mining land use. Plan 4 of the Second Mining Operations Plan (SMOP) displays the Final Rehabilitation and Post mining Land Use - 2022 landscape plan.</p>	MOP A2 SMOP	There are no recommendations.
53h	<p>Rehabilitation Management Plan</p> <p>This plan must:</p> <p>(h) include interim rehabilitation where necessary to minimise the area exposed for dust generation;</p>	C	<p>Section 5.3 of the SMOP addresses interim rehabilitation where phase 4 Ecosystem and Land Use Establishment ensures the initial cover of native ground cover (grasses) to be established. Section 4 Operating Conditions in Appendix 4 of the SMOP addresses the dust mitigation measures to be implemented in order to adhere to the Environmental Protection licence.</p>	SMOP	There are no recommendations.
53i	<p>Rehabilitation Management Plan</p> <p>This plan must:</p> <p>(i) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and</p>	C	<p>Table 17 of the MOP A2 Includes Rehabilitation Monitoring methodology to implement per domain.</p> <p>Table 18 of the MOP A2 presents the proposed rehabilitation monitoring methodology and frequency for each indicator and criteria identified.</p>	MOP A2	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
53j	Rehabilitation Management Plan This plan must: (j) build, to the maximum extent practicable, on the other management plans required under this approval;	C	The MOP makes reference to many of TGOs management plans and in particular has been integrated with the Biodiversity Management Plan (BMP).		There are no recommendations.
53k	Rehabilitation Management Plan This plan must: (k) include a risk assessment of any potential threats to rehabilitation of disturbed areas to a condition that can support the intended final land use, including a strategy to address risks identified; and	C	Table 11 of the MOP A2 presents the key rehabilitation -related risks during the MOP Term. Section 3.2 Environmental Risk management of the MOP A2 outlines the strategies to address identified risks. This section references a number of other Management plans, therefore not explicitly stating all strategies within the MOP A2 document.	MOP A2	There are no recommendations.
53l	Rehabilitation Management Plan This plan must: (l) include consideration of options for backfilling the Caloma Two void.	NC	No evidence was found in the MOP A2 that backfilling of Caloma Two void has been considered. Section 7.2.8 states that "Cal2 Open Cut will be retained as a void in the final landform". TGO advised that there is consultation regarding this and should be in the most recent version of the MOP, however this could not be identified.	MOP A2	It is recommended that the MOP includes reference to the consultation that took place in considering the option to backfill the Caloma Two void.
<b>SCHEDULE 4 - ADDITIONAL PROCEDURES</b>					
<b>NOTIFICATION OF LANDOWNERS</b>					
1a	Within 1 month of the date of approval, the Proponent shall notify in writing (a) the owner of land listed in Table 1 of schedule 3 that they have the right to require the Proponent to acquire their land at any stage during the project; and	C	TGO has notified, in writing (letter dated 20th August 2012), the owner of the lots 156, 157, 162 and 173 that at any stage during the project they may request that TGO purchase their property. Compliant as per previous IEA.	GHD IEA 2015	There are no recommendations.
1b	Within 1 month of the date of approval, the Proponent shall notify in writing (b) the owners of receivers R3 and R29 that they have the right to request the Proponent to ask for additional noise mitigation measures to be installed at their residence at any stage during the project.	C	TGO has notified the current owner of R3 and R29 in writing - letter dated 21 August 2012. Compliant as per previous IEA. TGO has completed architectural building treatments to 18 dwellings affected by on-site noise including R3 and R29 as shown in figure 2 of the NMP. The treatments to dwellings included acoustic improved glazing to windows and doors, and the provision of mechanical ventilation.	GHD IEA 2015	There are no recommendations.
2c	Within two weeks of obtaining monitoring results showing: (c) an exceedance of any relevant noise criteria in Schedule 3, the Proponent shall notify affected landowners and/ or tenants in writing of the exceedance, and provide regular monitoring results to each of these affected parties until the project is again complying with the relevant criteria; and	NC	TGO advised that they have a Memorandum of Understanding (MOU) with each property owner which sets out the acoustic treatments agreed to. The MOUs were sighted. The MOU requests that complaints or concerns in relation to mining activities are sent to TGO prior to being sent to a third party. TGO's Site Specific Procedure - Reporting Environmental Exceedances was sighted which clearly outlines the process for notifying regulatory authorities and affected residents of environmental exceedances. Annual Reviews for 2015, 2016 and 2017 were reviewed which show exceedances of the noise criteria. Exceedances in 2015 resulted in acoustic treatments to residents houses. Exceedances in 2016 were investigated and mitigation measures implemented. Only one exceedance occurred in 2017 relating to a mechanical failure on a piece of equipment. Notification to residents was not sighted as evidence.	MOU with property owners Site Specific Procedure - Reporting Environmental Exceedance	It is recommended that for noise quality exceedances, TGO notify affected residences in writing in accordance with this condition.
2d	Within two weeks of obtaining monitoring results showing: (d) an exceedance of any relevant air quality criteria in Schedule 3, the Proponent shall send the affected landowners and/or tenants a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time).	NC	TGO advised that they have a Memorandum of Understanding (MOU) with each property owner which sets out the acoustic treatments agreed to. The MOUs were sighted. The MOU requests that complaints or concerns in relation to mining activities are sent to TGO prior to being sent to a third party. TGO's Site Specific Procedure - Reporting Environmental Exceedances was sighted which clearly outlines the process for notifying regulatory authorities and affected residents of environmental exceedances. Letters advising residents of dust exceedances in 2015 were sighted. No other years were provided.	MOU with property owners Letters to residents regarding dust exceedances 2015	It is recommended that for air quality exceedances, TGO notify affected residences in writing in accordance with this condition.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
INDEPENDENT REVIEW					
3	<p>If an owner of privately-owned land considers the project to be exceeding the relevant criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land.</p> <p>If the Secretary is satisfied that an independent review is warranted, then within two months of the Secretary's decision the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:</p> <p>(i) consult with the landowner to determine his/ her concerns;</p> <p>(ii) conduct monitoring to determine whether the project is complying with the relevant criteria in Schedule 3; and</p> <p>(iii) if the project is not complying with these criteria then identify measures that could be implemented to ensure compliance with the relevant criteria.</p> <p>(b) give the Secretary and landowner a copy of the independent review.</p>	Not Triggered	An independent review has not been requested by any privately-owned land owner.	n/a	n/a
4	<p>If the independent review determines that the project is complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.</p>	Not Triggered	An independent review has not been requested by any privately-owned land owner.	n/a	n/a
5	<p>If the independent review determines that the project is not complying with the relevant criteria in Schedule 3, then the Proponent shall:</p> <p>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until the project complies with the relevant criteria; or</p> <p>(b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the Secretary.</p>	Not Triggered	An independent review has not been requested by any privately-owned land owner.	n/a	n/a
LAND ACQUISITION					
6	<p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:</p> <p>(a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the project, having regard to the:</p> <ul style="list-style-type: none"> <li>• existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and</li> <li>• presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date;</li> </ul> <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> <li>• relocating within the Narramine local government area, or to any other local government area determined by the Secretary; and</li> <li>• obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and</li> </ul> <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <p>However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.</p> <p>Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:</p> <ul style="list-style-type: none"> <li>• consider submissions from both parties;</li> <li>• determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;</li> <li>• prepare a detailed report setting out the reasons for any determination; and</li> <li>• provide a copy of the report to both parties.</li> </ul> <p>Within 14 days of receiving the independent valuer's report, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.</p>	Not Triggered	Acquisition has not been requested by any land owner.	n/a	n/a

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
6 (cont.)	<p>However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.</p> <p>Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.</p> <p>If the landowner refuses to accept the Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land shall cease, unless the Secretary determines otherwise.</p>				
7	The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 6 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.	Not Triggered	Acquisition has not been requested by any land owner.	n/a	n/a
<b>SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING</b>					
<b>ENVIRONMENTAL MANAGEMENT</b>					
1a	<p>Environmental Management Strategy</p> <p>The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:</p> <p>(a) be submitted for approval to the Secretary prior to construction;</p>	C	A letter from Kane Winwood to Collean Measday dated 29 October 2012 that confirmed department approval of the EMS was sighted.	EM Strategy Letter approving EMS from DPE dated 29/10/12	There are no recommendations.
1b	<p>Environmental Management Strategy</p> <p>This strategy must:</p> <p>(b) provide the strategic framework for the environmental management of the project;</p>	C	The EM Strategy addresses this requirement. Set out in section 2 'Scope of the Environmental Management Strategy'.	EM Strategy	There are no recommendations.
1c	<p>Environmental Management Strategy</p> <p>This strategy must:</p> <p>(c) identify the statutory approvals that apply to the project;</p>	C	Statutory approvals are outlined in Section 5 of the EM Strategy.	EM Strategy	There are no recommendations.
1d	<p>Environmental Management Strategy</p> <p>This strategy must:</p> <p>(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;</p>	C	This is set out in section 15 'Roles and Responsibility' of the EM Strategy.	EM Strategy	There are no recommendations.
1e(i)	<p>Environmental Management Strategy</p> <p>This strategy must:</p> <p>(e) describe the procedures that would be implemented to:</p> <p>(i) keep the local community and relevant agencies informed about the operation and environmental performance of the project;</p>	C	Section 13 'Community Consultation' of the EM Strategy outlines the procedures to which the community are kept informed. This section states 'there are two main medium to which TGO communicates with the community: The TGO website, and the Community Consultative Committee'. Table 6 of the EM Strategy references the Annual Review which is distributed to DP&E, DRG, EPA and other relevant government agencies and Narromine Shire Council.	EM Strategy	There are no recommendations.
1e(ii)	<p>Environmental Management Strategy</p> <p>This strategy must:</p> <p>(e) describe the procedures that would be implemented to:</p> <p>(ii) receive, handle, respond to, and record complaints;</p>	C	Section 14 'Complaints and Dispute resolution' of the EM Strategy outlines the procedures to receive, handle, respond to, and record complaints as well as resolve any disputes that may arise during the course of the project. The TGO community enquiry database is kept up to date on the TGO website.	EM Strategy TGO Website Complaints register	There are no recommendations.
1e(iii)	<p>Environmental Management Strategy</p> <p>This strategy must:</p> <p>(e) describe the procedures that would be implemented to:</p> <p>(iii) resolve any disputes that may arise during the course of the project;</p>	C	Section 14 'Complaints and Dispute resolution' outlines the procedures to receive, handle, respond to, and record complaints as well as resolve any disputes that may arise during the course of the project. The TGO community enquiry database is kept up to date on the TGO website which includes actions taken in response to the complaints received.	EM Strategy TGO Website Complaints register	There are no recommendations.
1e(iv)	<p>Environmental Management Strategy</p> <p>This strategy must:</p> <p>(e) describe the procedures that would be implemented to:</p> <p>(iv) respond to any non-compliance;</p>	C	Section 10 'Non compliance, corrective and preventative action' of the EM Strategy outlines the procedures to respond to non-compliance/incidents.	EM Strategy	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
1e(v)	Environmental Management Strategy This strategy must: (e) describe the procedures that would be implemented to: (v) respond to emergencies; and	NC	Section 7.3.1 'Project Induction' states that induction addresses emergency plans, however the EM Strategy does not describe the procedures that would be implemented to respond to emergencies. TGO do have an Emergency Management Plan that was sighted however it is not referenced within the Strategy.	EM Strategy	It is recommended that the EM Strategy is revised to include a section on 'Emergency Response' procedures or reference the Emergency Management Plan and where to locate it.
1f(i)	Environmental Management Strategy This strategy must: (f) include: (i) copies of any strategies, plans and programs approved under the conditions of this approval; and	C	This is set out in Table 1 of the EM Strategy which outlines the list of the specific EMPs that can be located on the Alkane Resources website.	EM Strategy	There are no recommendations.
1f(ii)	Environmental Management Strategy This strategy must: (f) include: (ii) a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.	C	This is set out in section 8 'Environmental Monitoring' of the EM Strategy.	EM Strategy	There are no recommendations.
2	Adaptive Management The Proponent shall assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.  Where any exceedance of these criteria and/or performance measures has occurred, the Proponent shall, at the earliest opportunity: (a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur; (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and (c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.	C	Each management plan has trigger action response plans. TGO also have a PIRMP that is used to manage incidents. Evidence of consultation with EPA was sighted. TGO advised that they report everything that occurs on site, even those items that are not incidents to ensure open communication with the government departments is maintained.	Management Plans Email correspondence with EPA seeking advice Incident report in email format	There are no recommendations.
3a	Management Plan Requirements The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include: (a) detailed baseline data;	C	Management Plans include references and related documents used in the preparation of the plans.  Baseline data are included in most Management Plans where required by this Project Approval.	Management Plans	There are no recommendations.
3b	Management Plan Requirements The Proponent shall ensure that the management plans include: (b) a description of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures/criteria; (iii) 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;	O	The standard format for TGO MPs includes a table/section that outlines the relevant Project Approval conditions. Additional legislative requirements are also provided.  Performance criteria could not be identified in the SWMP for the: • design and management of the final voids; • design and management of water storages including the residue storage facility and process water dams; and • control of any potential water pollution from the rehabilitated areas of the site;	Management Plans	See recommendation for 32b(ii).
3c	Management Plan Requirements The Proponent shall ensure that the Management Plans include: (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	C	Where relevant, MPs include a description of the measures to be implemented in order to comply with the relevant statutory requirements, limits, or performance measures/criteria.	Management Plans	There are no recommendations.
3d	Management Plan Requirements The Proponent shall ensure that the management plans include: (d) a program to monitor and report on the: (i) impacts and environmental performance of the project; (ii) effectiveness of any management measures (see c above);	C	Where relevant, MPs include monitoring programs which set out arrangements for monitoring and reporting on the impacts and environmental performance of the projects, and effectiveness of management measures specified in the plan.	Management Plans	There are no recommendations.
3c	Management Plan Requirements The Proponent shall ensure that the management plans include: (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	NC	Incident reporting, corrective actions and mitigation measures are provided for in most management plans. Some Management Plans also include Trigger Action Response Plans.	Management Plans	It is recommended that the relevant Management Plans such as the AOGHGMP, BLMP and NMP should be modified to include specific actions to manage any unpredicted impacts and their consequences.



Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
3d	Management Plan Requirements The Proponent shall ensure that the management plans include: (f) a protocol for managing and reporting any: (i) incidents; (ii) complaints; (iii) non-compliances with statutory requirements; and (iv) exceedances of the impact assessment criteria and/or performance criteria; and	C	MPs include provisions for complaints handling and for addressing incidents and non-compliances.	Management Plans	There are no recommendations.
3e	Management Plan Requirements The Proponent shall ensure that the management plans include: (g) a protocol for periodic review of the plan.	C	The EM Strategy and individual MPs provide for reviews of each plan to be undertaken annually.	Management Plans EM Strategy	There are no recommendations.
Note	Note: The <u>Secretary</u> may waive some of these requirements if they are unnecessary for particular management plans.	Noted	n/a	n/a	n/a
4a	Annual Review By the end of March each year following the commencement of construction, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must: (a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year;	C	AEMRs for 2015 and 2016 were reviewed and both were signed and dated prior to the end of March. Rehabilitation is set out in section 8 of the AEMR. Activities proposed for the next AEMR period are outlined in section 12.	AEMR 2015 AEMR 2016	There are no recommendations.
4b	Annual Review This review must: (b) include a comprehensive review of the monitoring results and complaints records of the project over the past calendar year, which includes a comparison of these results against the: (i) the relevant statutory requirements, limits or performance measures/criteria; (ii) requirements of any plan or program required under this approval; (iii) the monitoring results of previous years; and (iv) the relevant predictions in the EA;	C	Monitoring results for the project are recorded within section 6 of the AEMR and provide the statutory requirements, limits or performance measures/criteria for comparison. Complaints records are recorded within section 9.3 'Complaints and enquiries' of the AEMR. This section also includes a brief comparison against previous years.  Section 5 of the AEMR states that "Only EA noise and air quality predictions are relevant, and they have been compared with monitoring results".	AEMR 2015 AEMR 2016	There are no recommendations.
4c	Annual Review This review must: (c) identify any non-compliance over the past year, and describe what actions were (or are being) taken to ensure compliance;	C	Non-compliances are set out in section 11 of the AEMR. Exceedances, and the management measures implemented to address them, are described in Section 6.	AEMR 2015 AEMR 2016	There are no recommendations.
4d	Annual Review This review must: (d) identify any trends in the monitoring data over the life of the project;	NC	Some comparisons between datasets are provided in the AEMR 2015 such as noise, however trends were not identified. Comparisons and trends are described in the 2017 AEMR which has been approved by the the DPE. This condition is now complying however has been marked as a non-compliance due to the 2015 AEMR being in the reporting period for the audit.	AEMR 2015 AEMR 2016 AEMR 2017	This condition is now being complied with and so there are no further recommendations.
4e	Annual Review This review must: (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and	NC	Discrepancies between the predicted and actual impacts of the project are not included in the 2015 and 2016 AEMRs, however this has been added to the 2017 AEMR and TGO are now complying with this condition.	AEMR 2015 AEMR 2016	This condition is now being complied with and so there are no further recommendations.
4f	Annual Review This review must: (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.	C	This is set out in section 6.	AEMR 2015 AEMR 2016	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
5	<p>Revision of Strategies, Plans and Programs</p> <p>Within three months of:</p> <p>(a) the submission of an annual review under condition 4 above;</p> <p>(b) the submission of an incident report under condition 7 below;</p> <p>(c) the submission of an audit under condition 8 below; or</p> <p>(d) any modification to the conditions of this approval (unless the conditions require otherwise), the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the <a href="#">Secretary</a>.</p> <p>With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable conditions of this consent.</p>	NC	<p>The Revision Control Chart at the start of every Management Plan includes details of revisions.</p> <p>Document review requirements are not included in the EM Strategy.</p> <p>Some of the individual management plans include reference to some of the review requirements in this condition. For example, the NMP does not reference revision after the submission of an incident report. The BLMP does not reference any review requirements. The BMP and CHMP only make reference to review after modification of projects approvals.</p>	<p>Management Plans</p> <p>EM Strategy</p>	<p>It is recommended that the Environmental Management Strategy is updated to include the requirements of this condition as a trigger for reviewing strategies, plans, and programs.</p> <p>It is recommended that the review section in the individual Management Plans is updated to include this requirement as a trigger for reviewing and if relevant revising Management Plans.</p> <p>It is recommended that the Revision Control Chart found at the start of every Management Plan is revised to include details of reviews as well as revisions including a comments section which could be used to note that a review was undertaken and no revision was found necessary.</p>
6	<p>Community Consultative Committee</p> <p>The Proponent shall establish and operate a Community Consultative Committee (CCC) for the project in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version), and to the satisfaction of the <a href="#">Secretary</a>. This CCC must be operating within three months of the commencement of construction.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval; and</li> <li>In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.</li> </ul>	C	<p>Compliant as per previous IEA. The CCC minutes are uploaded online. The CCC representatives including contact details are also provided online and comprise of the correct groups as per this condition.</p>	<p>TGO Website</p> <p>GHD IEA 2015</p>	<p>There are no recommendations.</p>
REPORTING					
7	<p>Incident Reporting</p> <p>The Proponent shall notify the <a href="#">Secretary</a> 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 seven days of the date of the incident, the Proponent shall provide the <a href="#">Secretary</a> and any relevant agencies with a detailed report on the incident.</p>	NC	<p>The requirement is provided for in section 2.1.2 'Notification of Authorities' and 3.2 Incident Report' in the Pollution Incident Response Management Plan (PIRMP). Environment incidents are reported and responded to in accordance with the TGO Incident Report which is completed as part of the Incident Investigation.</p> <p>Most management plans state that the DP&amp;E will be notified of the incident and that a report will be provided within 7 days however the PIRMP does not make reference to the DP&amp;E within section 2.1.2 'Notification of Authorities'.</p>	<p>PIRMP</p> <p>Management Plans</p>	<p>It is recommended that the PIRMP is updated to include reference to the DP&amp;E being notified as per this condition.</p>
INDEPENDENT ENVIRONMENTAL AUDIT					
8	<p>One year after mining operations commence, and every three years thereafter, unless the <a href="#">Secretary</a> directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. The audit must:</p> <p>(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;</p> <p>(b) include consultation with the relevant agencies;</p> <p>(c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);</p> <p>(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and</p> <p>(e) recommend appropriate measures or actions to improve the environmental performance of the project, and/ or any assessment, plant or program required under the abovementioned approvals.</p> <p>Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the <a href="#">Secretary</a>.</p>	C	<p>This audit has assessed TGO on their environmental performance of the project and has assessed TGOs compliance with the requirements in the Project Approval, EPL, Consolidated Statement of Commitments and Mining Lease.</p> <p>Before commencement of the independent compliance audit, consultation was undertaken with the following agencies:</p> <ul style="list-style-type: none"> <li>- DP&amp;E</li> <li>- DP&amp;I</li> <li>- EPA NSW</li> <li>- Narromine Shire Council</li> </ul> <p>The current audit addresses the requirements within this condition.</p>	<p>TGO Independent Environmental Audit</p> <p>2018</p>	<p>There are no recommendations.</p>
9	<p>Within six weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the <a href="#">Secretary</a>, together with its response to any recommendations contained in the audit report.</p>	Noted	<p>Refers to the process of responding to this audit.</p>	<p>n/a</p>	<p>There are no recommendations.</p>

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation						
ACCESS TO INFORMATION											
10	<p>Prior to the commencement of construction on the site, or within 1 month of the submission of the relevant documents, the Proponent shall:</p> <p>(a) make copies of the following publicly available on its website:</p> <p>(i) the documents referred to in condition 2 of Schedule 2;</p> <p>(ii) all relevant statutory approvals for the project;</p> <p>(iii) all approved strategies, plans and programs required under the conditions of this approval;</p> <p>(iv) a comprehensive summary of the monitoring results of the project, reported in accordance with the specifications in any approved plans or programs required under the conditions of this or any other approval;</p> <p>(v) a complaints register, which is to be updated on a monthly basis;</p> <p>(vi) minutes of CCC meetings;</p> <p>(vii) the annual reviews required under this approval;</p> <p>(viii) any independent environmental audit of the project, and the Proponent's response to the recommendations in any audit;</p> <p>(ix) any other matter required by the <a href="#">Secretary</a>; and</p> <p>(b) keep this information up-to-date, to the satisfaction of the <a href="#">Secretary</a>.</p>	C	All of the documents listed in Clause 10 (a) are on the website.	TGO Website	There are no recommendations.						
APPENDIX 3 PLANNING AGREEMENT GENERAL TERMS											
1	<p>Contributions to Council until December 2022 for:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Community Fund</td> <td style="text-align: right;">\$63,750/annum</td> </tr> <tr> <td>Road Maintenance (except for Tomingley West Road)</td> <td style="text-align: right;">\$45,000/annum</td> </tr> <tr> <td>Provision of Council Environmental Management Expertise</td> <td style="text-align: right;">\$20,000/annum</td> </tr> </table>	Community Fund	\$63,750/annum	Road Maintenance (except for Tomingley West Road)	\$45,000/annum	Provision of Council Environmental Management Expertise	\$20,000/annum	C	Invoices were sighted for contributions to Council as stipulated in this condition.	Email from NSC confirming TGO Contributions	There are no recommendations.
Community Fund	\$63,750/annum										
Road Maintenance (except for Tomingley West Road)	\$45,000/annum										
Provision of Council Environmental Management Expertise	\$20,000/annum										
2	Upgrade and maintenance of Tomingley West Road as per plans approved by Council	O	TGO advised that they do upgrades to the road as per the Voluntary Planning Agreement. Correspondence between Narromine Shire Council (NSC) and TGO was sighted regarding gaining approval and handover of the road, however NSC has not provided formal approval.	Management Assertion VPA NSC correspondence with TGO 2014	It is recommended that TGO seek Council signoff on the road works completed one last time to close out this condition. In TGO's request, TGO should consider using words like - "if you don't respond we will assume you have approved the design".						
3	Transfer ownership of the water supply pipeline, 300 mm production bore, pumps, bore power supply and potentially a portion of the bore extraction licence to Council (subject to Council's concurrence) when no longer required by the project.	Not Triggered	TGO advised that this will occur at mine closure.	Management Assertion	There are no recommendations.						
4	Contribute between \$30,000 and \$50,000 for a Water Supply Options Study.	C	The Water Supply Options Study has been completed and sighted by the auditor.	Water Supply Options Study	There are no recommendations.						
5	Provide water to Tomingley village sufficient to meet its supply needs until the end of the mine's life.	C	This has been completed, email evidence was sighted.	Email correspondence between TGO and Doug Moorby (NSC) 10/11/17 and 23/8/17	There are no recommendations.						
APPENDIX 7 NOISE COMPLIANCE ASSESSMENT											
1	<p>Applicable Meteorological Conditions</p> <p>The noise criteria in Table 2 of schedule 3 are to apply under all meteorological conditions except the following:</p> <p>a) Wind speeds greater than 3 m/s at 10 m above ground level; or</p> <p>b) Stability category F temperature inversion conditions and wind speeds greater than 2 m/s at 10 m above ground level; or</p> <p>c) Stability category G temperature inversion conditions.</p>	Noted	This is set out in section 3.2 'Operational Noise Criteria' of the NMP.	NMP	There are no recommendations.						
2	<p>Determination of Meteorological Conditions</p> <p>Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station located on the site.</p>	C	This is set out in section 5.4 'Meteorological Monitoring' of the NMP.	NMP	There are no recommendations.						
3	<p>Compliance Monitoring</p> <p>Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent</p>	C	This is set out in section 4.6 'Noise Monitoring' of the NMP.	NMP	There are no recommendations.						

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
4	<p>Compliance Monitoring</p> <p>This monitoring must be carried out at least 12 times a year, unless the Secretary agrees otherwise.</p>	C	<p>According to section 4.6.3 of the NMP, Supplementary Attended monitoring is undertaken quarterly. The results from any monitoring undertaken is included in the TGO Monthly Environmental Monitoring Report. These reports are made available on the TGO website. The 2016 Annual Review states that "TGO engaged a noise consultant to complete a technical review of the Noise Management Plan and develop new site specific procedures for monitoring. The review recommended the introduction of quarterly attended noise monitoring (to supplement the statutory annual attended monitoring). TGO have incorporated this measure into the revised Noise Monitoring Plan, however the attended monitoring is carried out monthly". This monthly noise monitoring is not reflected within the NMP.</p>	<p>NMP</p> <p>Monthly Environmental Monitoring Report</p>	<p>It is recommended that the NMP and noise monitoring program are updated to reflect this condition and the monthly attended noise monitoring that actually occurs as stated within the 2016 Annual Review under section 6.1.1.</p>
5	<p>Compliance Monitoring</p> <p>Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial Noise Policy (as amended from time to time) or an equivalent NSW Government noise policy, in particular the requirements relating to:</p> <p>a) Monitoring locations for the collections of representative noise data;</p> <p>b) Meteorological conditions during which collections of noise data is not appropriate;</p> <p>c) Equipment used to collect noise data, and conformance with Australian Standards relevant to such equipment; and</p> <p>d) Modification to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors, apart from adjustments for:</p> <ul style="list-style-type: none"> <li>• duration; or</li> <li>• low frequency noise, where it is demonstrated that the dBC – dBA noise difference is caused by distance attenuation only.</li> </ul>	C	<p>This is set out in section 5 'Noise Monitoring Methodology' of the NMP.</p>	<p>NMP</p>	<p>There are no recommendations.</p>

Tomingley Gold Operations - Alkane Resources Ltd  
Independent Environmental Audit  
Detailed Findings and Recommendations  
Statement of Commitments

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
<b>APPENDIX 8 - STATEMENT OF COMMITMENTS</b>					
<b>ENVIRONMENTAL MANAGEMENT</b>					
1.1	Comply with all commitments recorded in Table 5.1 (this table).	Noted	n/a	n/a	There are no recommendations.
1.2	Comply with all conditional requirements included in the: <ul style="list-style-type: none"> <li>• PA 09_0155;</li> <li>• EPL 20169;</li> <li>• ML 1684; and</li> <li>• Groundwater licences.</li> </ul>	Noted	The scope of the audit incorporated a review of compliance against the project approval, EPL 20169, Statement of Commitments and ML1730 only. Any non compliances identified through the audit are outlined in this compliance table.	n/a	There are no recommendations.
1.3	Implement the following management plans: <ul style="list-style-type: none"> <li>• Mining Operations Plan (Rehabilitation Management Plan)</li> <li>• Cultural Heritage Management Plan</li> <li>• Water Management Plan</li> <li>• Noise Management Plan</li> <li>• Blast Management Plan</li> <li>• Air Quality and Greenhouse Gas Management Plan</li> <li>• Biodiversity Management Plan</li> <li>• Traffic Management Plan</li> <li>• Hazardous Materials Management Plan</li> <li>• Pollution Incident Response Management Plan</li> </ul>	C	All management plans listed in this condition are available on the TGO website and have been reviewed as part of this audit. Throughout the audit, TGO provided evidence of all management plans being implemented.	Management Plans	There are no recommendations.
1.4	Prepare monthly environmental management reports and upload to the Mine website.	C	Monthly Environmental monitoring reports are available for each month on the TGO website.	Monthly Environmental Monitoring Reports TGO website	There are no recommendations.
1.5	Incorporate relevant environmental data / information in Annual Environmental Management Reports	C	The AEMRs are made available on the TGO webpage and include environmental data and information.	AEMR 2015 AEMR 2016	There are no recommendations.
<b>AREA OF ACTIVITIES</b>					
2.1	Mark, and where appropriate, survey the boundaries of the areas of proposed disturbance on the Mine Site prior to the commencement of the relevant activity.	C	TGO advised that the entire site is fenced. The boundaries have been surveyed as shown in the full site layout map. Other volume reports and end of month reports were also sighted.	Top soil stockpile surface area site map TGO Full Site Layout 29/04/13 Volume Report 18/12/13	There are no recommendations.
2.2	Mark, and where appropriate fence, boundaries relevant to the biodiversity offset strategy within 6 months of approval of the biodiversity offset strategy	C	The offset areas were observed during the site inspection. Only those areas where livestock is prevalent have been securely fenced with other offset areas marked with signage.	Site Inspection Management Assertion	There are no recommendations.
<b>OPERATING HOURS</b>					
3.1	Undertake all activities, where practicable, in accordance with the operating hours approved by PA 09_0155.	C	This is set out in section 4.2 'Operating Hours' of the NMP. No complaints have been made in the audit period regarding operations being conducted outside of hours.	NMP	There are no recommendations.
<b>NOISE</b>					
4.1	Construct and maintain an acoustic and amenity bund at the northern end of the Mine Site in accordance with PA 09_0155 MOD 2.	C	The acoustic and amenity bund was observed during the site inspection.	Site inspection	There are no recommendations.
4.2	Implement noise mitigation and management measures in accordance with an approved Noise Management Plan (NMP).	C	This is set out in section 4.6.4 'Operational Control' of the NMP.	NMP Site inspection	There are no recommendations.
4.3	Undertake noise monitoring in accordance with an approved NMP. As defined within the NMP	C	A permanent real time noise monitor is installed and operating and is used in conjunction with attended noise monitoring. The noise monitoring undertaken on site is set out in section 4.6 'Noise Monitoring' of the NMP. TGO have engaged Muller Acoustic Consulting to conduct annual monitoring and monthly monitoring, reports of which were sighted on the TGO website.	NMP Annual Noise Monitoring Report (Dec 2017) Monthly Noise Monitoring Assessment (Jan 2018)	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
4.4	Implement procedures for response to real-time monitoring results. As required on receipt of notification.	NC	Responses to real time monitoring are set out in sections 5.3.1 and 5.3.2 of the NMP.  TGO advised that due to traffic noise it is not possible for TGO to act on real time noise data. Real time data is reviewed by Muller Acoustic consulting. A sample of reports was sighted.	NMP Muller Acoustic Reports	It is recommended that the procedures within section 5.3.1 and 5.3.2 of the NMP are followed or alternatively, the NMP is updated to include actual practices on site.
4.5	Complete annual noise compliance monitoring.	C	TGO have engaged Muller Acoustic Consulting to conduct annual monitoring, reports of which were sighted on the TGO website.	Annual Noise Monitoring Report (Dec 2017)	There are no recommendations.
4.6	Ensure that a 24-hour complaints telephone line is maintained and that the surrounding community is made aware of the number. If noise-related complaints are received. Prior to the commencement of activities on the Mine Site	C	A community information line number is maintained 24/7 and provided on the TGO website (02 6865 6116). It was advised that calls are forwarded to Marks mobile number after hours.	TGO Website Management Assertion Test of hotline by auditor	There are no recommendations.
4.7	Ensure that prompt action is taken to identify the nature of any complaint received and verify the relevant noise levels using the real-time noise monitoring equipment. Within 24 hours of receipt of complaint.	C	Responses to noise complaints are set out in section 5.6 of the NMP. Complaint registers have been reviewed which includes noise complaints and the response/action that was taken.	NMP Complaints register 2015, 2016, 2017	There are no recommendations.
<b>SURFACE WATER</b>					
5.1	Construct and maintain surface water management infrastructure of the Mine in accordance with an approved Water Management Plan (WMP).	C	Surface water infrastructure was observed during the site inspection which was in accordance with section 2 'Water Management System' of the WMP.	Site Inspection WMP	There are no recommendations.
5.2	Implement impact mitigation measures in accordance with an approved WMP	C	Trigger Action Response Plans are provided in section 8 of the WMP. TGO also undertake pre-rain inspections to ensure the surface water management system is in tact. Sediment controls that are implemented on site are set out in section 4.4.2.	WMP Pre-rain inspection checklist	There are no recommendations.
5.3	Undertake surface water monitoring in accordance with an approved WMP	C	Surface water monitoring is outlined in the Monthly Environmental Monitoring Reports and the AEMR.	Monthly Environmental Monitoring Reports AEMR 2016	There are no recommendations.
5.4	Ensure that all fuel and reagent storage, delivery and handling areas are appropriately sealed and bunded and that overflow pipes are installed in a manner that would minimise the potential for pollution in the event of overfilling.	NC	This was observed as adequate in most instances. There was one instance where some fuel drums (having just been delivered) were sitting on a pallet bund that was not compliant.	Site Inspection	It is recommended that fuel drums from deliveries are placed in a nominated bunded area. Delivery trucks should be informed of the drop-off protocol.
5.5	Securely store all hydrocarbon and chemical products.	NC	There was one instance where some fuel drums (having just been delivered) were sitting on a pallet bund that was not compliant.	Site Inspection	See recommendation for 5.4 above.
5.6	Ensure all hydrocarbon and chemical storage tanks are either self-bunded tanks or bunded with an impermeable surface and a capacity to contain a minimum 110% of the largest storage tank capacity.	C	The diesel tank on site is self-bunded. The process area was observed to be in a completely bunded area. Other tanks were observed to be bunded.	Site Inspection	There are no recommendations.
5.7	Refuel all equipment within designated areas of the Mine Site, where practicable.	C	Trucks were seen filling up in the designated areas during the site inspection. It was advised that excavators are refuelled in the pit due to mobility restrictions.	Site Inspection Management Assertion	There are no recommendations.
5.8	Undertake all maintenance works involving hydrocarbons, where practicable, within designated areas of the Mine Site such as the maintenance workshop.	C	The plant workshop was sighted during the audit. TGO advised that it is part of their contract to de-contaminate the entire area at mine closure. This is because a concrete floor cannot be used for the heavy vehicles.	Site Inspection Management Assertion	There are no recommendations.
5.9	Direct all water from wash-down areas and workshops to oil/water separators and containment systems.	C	There is an underground separator for the wash bay.	Site Inspection Management Assertion	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
5.10	Construct the RSF in accordance with design specifications and have QA/QC assessment completed. During site establishment phase (prior to commencement of mining)	C	The previous IEA identified the following: "TGO advised that the RSF design report was lodged with the Dam Safety Committee for approval. A letter from the DSC on 3 November 2011 confirmed that the overall design satisfied the DSC requirements. The DSC letter advised that its requirements are primarily concerned with flood security level and structural stability. Monitoring of the construction of the dam was undertaken by Macquarie Geotech whom were engaged to inform the selection of soil for the construction of the RSF and to conduct testing throughout the construction process. (Sighted Level 1 Geotechnical Inspection and Testing for Residue Storage Facility, Tomingley Gold Project Report August 2013) The Macquarie Geotech report concluded that the earthworks were constructed in accordance with design specifications. From a permeability perspective however, the report did not explicitly state that the floor and walls are lined to achieve a permeability standard of at least 1 x 10 <sup>-9</sup> m/s. The auditor sought further clarification from TGO on this matter and TGO sought advice from Macquarie Geotech on the design specifications. Macquarie Geotech advised that a specification alternate to the requirements of Project Approval was attained". The recommendation was for TGO to undertake a risk assessment in accordance with Environmental Guidelines – Management of Tailing Storage Facilities (Vic DPI, 2004) to determine whether the permeability standard achieved for the residue storage facility and associated collection pond is acceptable. In July 2015, TGO commissioned Macquarie Geotech to undertake a Geotechnical Investigation for the RSF Permeability. The objectives of this investigation were to review compaction records for the construction of the RSF, determine the in-situ permeability conditions of the RSF at selected locations and install groundwater monitoring wells. The report concluded that "All of the permeability results indicate that the constructed RSF has permeability lower than the required 1 x 10 <sup>-9</sup> m/sec" which is compliant with condition 5.11 below.	GHD IEA 2015 Macquarie Geotech Report July 2015	There are no recommendations.
5.11	Line the RSF and Raw Water Dam with compacted clay to achieve a permeability of 1 x 10 <sup>-9</sup> m/s or less. During site establishment phase (prior to commencement of mining).	C	In July 2015, TGO commissioned Macquarie Geotech to undertake a Geotechnical Investigation for the RSF Permeability. The objectives of this investigation were to review compaction records for the construction of the RSF, determine the in-situ permeability conditions of the RSF at selected locations and install groundwater monitoring wells. The report concluded that "All of the permeability results indicate that the constructed RSF has permeability lower than the required 1 x 10 <sup>-9</sup> m/sec" which is compliant with condition 5.11 below.	Macquarie Geotech Report July 2015	There are no recommendations.
5.12	Provide for design specific freeboard within the RSF and Raw Water Dam to prevent overtopping. During site establishment phase (prior to commencement of mining).	C	Compliant as per previous IEA	GHD IEA 2015	There are no recommendations.
GROUNDWATER					
6.1	Remove water accumulating in the open cuts, transfer to Dewatering Dams and use preferentially for dust suppression activities.	C	Water intercepted by the sediment basins is transferred to the Caloma One void and subsequently to the north cell of the Wyoming Central Dam (WCD – North) for reuse in dust suppression and as process water make up. Pumps and piping used to pump out water from the open cuts was observed during the site inspection. TGO advised that the active pits only get pumped out.	WMP Site Inspection Management Assertion	There are no recommendations.
6.2	Implement impact mitigation measures in accordance with an approved Water Management Plan (WMP).	C	Trigger Action Response Plans are provided in section 8 of the WMP. The groundwater TARPS state that the response to a trigger would be to investigate and implement mitigation measures. TGO confirmed that implementation measures would be the subject of an investigation as described in the TARP.	WMP	There are no recommendations.
6.3	Undertake the groundwater monitoring in accordance with an approved WMP.	C	Monitoring is set out in section 3.2 of the GWMP. Monitoring records were sighted for Groundwater.	GWMP Groundwater sampling results Email correspondence with CBASED Environmental	There are no recommendations.
6.4	Implement additional assessment, land owner notification and contingency or compensatory measures in accordance with an approved Site Water Management Plan.	Not Triggered	TGO have not had any complaints in the audit period about loss of water supply from landowners. This is set out in section 5.3.1 'Compensatory water supply' of the WMP.	WMP Management Assertion Complaints register	There are no recommendations.
BIODIVERSITY					
7.1	Locate the Mine Site activities and infrastructure so as to avoid the majority of remnant native vegetation. Restrict disturbance of remnant native vegetation to (approximately): • 2.7ha (of 36.9ha) of Inland Grey Box – Poplar Box – White Cypress Pine tall woodland on red loams; • 0.9ha (of 30.9ha) of Fuzzy Box – inland Grey Box on alluvial brown loam soils; and • 18.8ha (of 70.3ha) of Belah / Black Oak Western Rosewood Wilga woodland.	Not Verified	There is no further expansion of the mine occurring.	Management Assertion	There are no recommendations.



Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
7.2	Implement the impact avoidance, minimisation, mitigation and offset measures of an approved Biodiversity Offset Strategy and Biodiversity Management Plan (BMP) for the Mine in consultation with the OEH and DPE.	C	The Biodiversity Offset Strategy states that "Consultation with OEH and LLS resulted in a modified offset area agreed for a Conservation Property Vegetation Plan (PVP)". A PVP has been developed in consultation with NSW Office of Environment and Heritage (OEH) and approved by Local Land Services (LLS) as the framework under which TGO will manage and provide long-term security for the Biodiversity Offset Area. Section 6.2 of the BMP provides details of the management strategies that will be implemented to manage remnant vegetation and habitat within the Biodiversity Offset Area. These management strategies are classified as 'short-term', 'mid-term' and 'long' term. Managing habitat integrity is set out in section 6.3.3 of the BMP. The management of offset areas is also detailed within the AEMRs.	AEMR 2017 BMP	There are no recommendations.
7.3	Implement the Conservation Property Vegetation Plan, as agreed and signed between TGO and Local Land Services – Central West.	C	The Biodiversity Offset Strategy states that "Consultation with OEH and LLS resulted in a modified offset area agreed for a Conservation Property Vegetation Plan (PVP)". A PVP has been developed in consultation with NSW Office of Environment and Heritage (OEH) and approved by Local Land Services (LLS) as the framework under which TGO will manage and provide long-term security for the Biodiversity Offset Area. AEMR 2017 states that "In accordance with the authorised activities and management actions required by the PVP, 6.4ha broadcast seeding and cover slashing was carried out within biodiversity offset area between the mine access road and Gundong creek was carried out in 2017 to extend remnant native vegetation communities".	AEMR 2017 BMP PVP	There are no recommendations.
7.4	Complete rehabilitation in accordance with an approved Rehabilitation Management Plan (RMP) or Mining Operations Plan (MOP).	C	The Rehabilitation Management Plan is incorporated into the MOP. The AEMR reports on the progressive rehabilitation on site. Progressive rehabilitation was also observed during the site inspection.	MOP Amendment 2 (MOP A2) AEMR 2016 Site Inspection	There are no recommendations.
<b>ABORIGINAL HERITAGE</b>					
8.1	Implement the Cultural Heritage Management Plan for the Mine in consultation with OEH and DPE.	C	Compliant as per previous IEA. Section 1 states that "This document has been developed in consultation with registered Aboriginal community stakeholders and the NSW Office of Environment and Heritage (OEH)". Appendix 2 adequately outlines the consultation with OEH. Appendix 3 provides a 'Community Engagement Protocol' signed by Aboriginal stakeholders. The CHMP has been developed in consultation with Aboriginal stakeholders and on 13th June 2012 a final meeting was held to review the CHMP and confirm its adequacy. From this meeting it was agreed that the CHMP is comprehensive and adequate. Minutes from this meeting are included as Appendix 3.	CHMP GHD IEA 2015	There are no recommendations.
8.2	In the event the disturbance footprint changes, ensure that appropriate consultation and field survey is undertaken to confirm no sites or objects of Aboriginal heritage significance are impacted. If the disturbance footprint changes.	C	The disturbance footprint has not changed and all operations occur within the approved mining area.	Management Assertion	There are no recommendations.
8.3	Ensure work in an area is suspended should any Aboriginal sites be uncovered. The OEH Western Regional Archaeologist (Dubbo Office) and local Aboriginal community will be contacted to discuss how to proceed. If a previously unidentified object or Aboriginal site is uncovered.	C	This is set out in section 7.3.3 'General Management Measures / Unidentified Finds Protocol' of the CHMP.	CHMP	There are no recommendations.
<b>NON ABORIGINAL HERITAGE</b>					
9.1	Implement the Cultural Heritage Management Plan for the Mine in consultation with OEH and DPE.	C	Compliant as per previous IEA. Section 1 states that "This document has been developed in consultation with registered Aboriginal community stakeholders and the NSW Office of Environment and Heritage (OEH)". Appendix 2 adequately outlines the consultation with OEH. Appendix 3 provides a 'Community Engagement Protocol' signed by Aboriginal stakeholders. The CHMP has been developed in consultation with Aboriginal stakeholders and on 13th June 2012 a final meeting was held to review the CHMP and confirm its adequacy. From this meeting it was agreed that the CHMP is comprehensive and adequate. Minutes from this meeting are included as Appendix 3.	CHMP GHD IEA 2015	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
<b>VISUAL AMENITY</b>					
10.1	Maintain vegetated amenity bunds in the following locations. <ul style="list-style-type: none"> <li>• Adjacent to the eastern and western boundary of the Newell Highway.</li> <li>• To the north of the Caloma Open Cut.</li> <li>• To the south of the Wyoming One Open Cut.</li> <li>• to the north of Waste Rock Emplacement 2</li> </ul>	C	The vegetated amenity bunds were observed during the site inspection and pointed out on a map of the mine by staff.	Mine Map Site Inspection	There are no recommendations.
10.2	Construct and progressively rehabilitate the Waste Rock Emplacements in accordance with an approved MOP (or Rehabilitation Management Plan).	C	The Rehabilitation Management Plan is incorporated into the MOP. The AEMR reports on the progressive rehabilitation on site. Progressive rehabilitation was also observed during the site inspection.	MOP Amendment 2 (MOP A2) AEMR 2016 Site Inspection	There are no recommendations.
10.3	Place and operate lighting on the Mine Site that: <ul style="list-style-type: none"> <li>• are not directed towards, and therefore do not impact on the vision of motorists using the Newell Highway;</li> <li>• do not point towards surrounding residences; and</li> <li>• minimise the 'loom' created by the lights.</li> </ul>	C	TGO advised that some issues had occurred with mobile lighting plants, so a 'lighting plants instruction' stick up guide was created and stuck inside the lighting houses. Reflective signs are also attached to the nearest receivers to allow staff to ensure lights are not pointing towards residences. Upon site inspection, it was clear that outdoor lighting was pointed below the horizontal.	Site Inspection Lighting Plants Instructions	There are no recommendations.
10.4	Provide for additional visual screening in response to reasonable and feasible request from surrounding land holders.	C	No visual amenity requests have been received.	Management Assertion	There are no recommendations.
10.5	Maintain the Mine Site in a clean and tidy condition at all times.	C	The mine site was observed to be in a clean and tidy condition at the time of the site inspection.	Site Inspection	There are no recommendations.
10.6	Implement commitments related to air emissions management.	C	This is set out in section 8.1.5 of the BLMP 'Dust and Fume Emissions'. Dust from blasting is managed in accordance with the TGO Explosives and Blast Management Plan as well as weather forecast monitoring, dust monitoring, base line studies, temporary Highway closures during blast periods in Caloma and Wyoming 1 pits, visual monitoring for fumes and the installation of warning signs and notifications. Water trucks were observed during the site inspection.	BLMP Site Inspection	There are no recommendations.
<b>AIR QUALITY</b>					
11.1	Undertake all surface disturbance, mining, processing, transportation and other air emissions activities in accordance with an approved Air Quality and Greenhouse Gas Management Plan (AQGHGMP) for the Mine.	C	This is set out in section 8 'Air Quality Response Plan' of the AQGHGMP. TGO have a weather zone subscription which provides data on wind, temperature inversion etc. This is used to guide the weeks activities. TGO have a weekly planning meeting and the mining teams are provided with the weather zone information to guide their operations for the week.	AQGHGMP	There are no recommendations.
11.2	Undertake air quality monitoring in accordance with an approved AQGHGMP for the Mine.	C	This is set out in the TGO Monthly Environmental Monitoring Reports. The air quality monitoring program includes a real-time TEOM for PM10, a high volume air sampler (HVAS) for Total Suspended Particulates (TSP) and five dust deposition gauges (DDG) for dust deposition. The air quality monitoring program is sufficient to support both proactive and reactive management onsite. Proactive and reactive management is set out in section 8 of the AQGHGMP.	Monthly Environmental Monitoring Reports AQGHGMP	There are no recommendations.
<b>BLASTING AND VIBRATION</b>					
12.1	Undertake blasting in accordance with an approved Blast Management Plan (BMP).	C	TGO have prepared a Blast Management Plan for the project which is approved by the DPE. The letter of approval for the BLMP from DPE was sighted - it is noted that it mistakenly refers to the Traffic Management Plan in the letter. Email correspondence showing consultation with the government agencies was sighted dated 29/11/2016. Email correspondence from RMS and OEH choosing not to comment was also provided.	BLMP BLMP Approval letter DPE 23/12/16 Email consultation 29/11/2016 EPA letter 2/12/16	There are no recommendations.
12.2	Ensure that all blasts are designed by a suitably qualified and experienced blasting engineer or shotfirer.	C	Explosives licences were sighted for personnel on site.	Explosives Licences for Bradley Pearce, Anthony Cahill and Kym Mosey	

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
<b>TRAFFIC AND TRANSPORTATION</b>					
13.1	Undertake all transport operations in accordance with an approved Traffic Management Plan (TMP).	C	The Traffic Management Plan was developed in August 2012 as a part of the EMS, with latest revision (4) published September 2016.	TMP	There are no recommendations.
13.2	Enforce a Code of Conduct for all drivers for all heavy vehicles that travel to and from the Mine Site regularly. The Code of Conduct will stipulate safe driving practices must be maintained at all times.	C	Driving is covered the site induction.  TGO advised that a site specific Code of Conduct does not exist.  Requirements are included in terms of contract, e.g. the freight contract states that "The Contractor shall ensure that its drivers and other employees, agents and Subcontractors are competent in every way to perform the Services and where applicable hold the necessary licences, permits, endorsements or other certificates..... required by law".	Induction Freight Contract Agreement	There are no recommendations.
13.3	Investigate immediately any complaints received and substantiated incidents acted on decisively, which could include the banning the offending driver(s) from the Mine Site.	C	There have been three complaints regarding driving. All complaints have been investigated and acted on by TGO. TGO undertake Toolbox talks about driving to encourage safe driving behaviour, follow road rules, speeding and fatigue etc. TGO advised that they do not threaten to ban people as it is not possible to prove something that has occurred off site.	Complaints register Management Assertion Weekly Toolbox Topic email - Driving To and From the site	There are no recommendations.
13.4	Prepare an individual Traffic Control Plan for each over mass and over weight delivery	Not Triggered	This is referring to the construction phase of the project only and has not been addressed in this audit.	n/a	n/a
<b>SOILS AND LAND CAPABILITY</b>					
14.1	Strip soil material as nominated within an approved MOP.	C	Soil management is outlined in section 2.3.2 of the MOP. It doesn't nominate the location of storage, only noting that "Use soil materials immediately in areas undergoing progressive rehabilitation, where practicable. Where this is not practicable, place soil transported by truck directly into storage or place soil transported by scrapers in thick "lifts" to minimise compaction". Topsoil stockpiles were observed during the site inspection, aerial photographs were also sighted with topsoil stockpiles shown on them.	Site Inspection MOP	There are no recommendations.
14.2	Undertake final landform construction and rehabilitation in accordance with an approved RMP or MOP.	Not Triggered	No final landform rehabilitation has yet been completed however rehabilitation activities and status are provided within the AEMR.	AEMR 2016	There are no recommendations.
<b>WASTE</b>					
15.1	Maintain a register of the types and quantities of wastes produced on the Mine Site.	C	A waste register for the site including tonnages was sighted by the auditor.	Waste Register	There are no recommendations.
15.2	Design and maintain storage areas to contain spillages.	C	The diesel tank on site is self-bunded. The process area was observed to be in a completely bunded area. Other tanks were observed to be bunded.	Site Inspection	There are no recommendations.
15.3	Segregate and retain recyclable and non-recyclable waste in designated storage areas prior to removal from the Project Site.	C	Recyclable skip bins with correct signage were observed.	Site Inspection	There are no recommendations.
15.4	Keep the Project Site in a clean and tidy condition.	C	The site was observed to be in a clean and tidy condition at the time of the site inspection.	Site Inspection	There are no recommendations.
15.5	Ensure waste is regularly removed from the Project Site by a licensed contractor	C	Waste receipts were sighted for the collection of waste on a regular basis.	Waste receipts	There are no recommendations.
<b>SOCIO ECONOMIC SETTING</b>					
16.1	Engage the community surrounding the Project in regular dialogue in relation to the proposed and ongoing operation of the Project and maintain an "open door" policy for any member of the community who wishes to discuss any aspect of the Project	C	Newsletters are letterbox dropped into the communities letter boxes. There is also a community noticeboard at the service station. The CCC also meets quarterly keeping minutes of each meeting and the items discussed. The CCC minutes are uploaded online.	Newsletter CCC meeting minutes	There are no recommendations.
16.2	Proactively and regularly consult with those residents most likely to be adversely impacted by the Project.	C	Email correspondence between residents and TGO was sighted. A sample of community newsletters was also verified, TGO also took photos from the Family and community day where all residents were invited to the mine.	Email correspondence with residents Management Assertion Newsletters Community Notice 24/11/2015	There are no recommendations.
16.3	Continue to support community organisations, groups and events, as appropriate, and review any request by a community organisation for support or assistance throughout the life of the Project.	C	TGO have implemented a community fund and keep records of those community projects that have applied for funding. Funding is undertaken in 2 rounds throughout the year. A list of funding applications was sighted.	Register of funding community projects	There are no recommendations.
16.4	Advertise and maintain a community complaints telephone line.	C	This is maintained on the TGO website.	TGO website	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
16.5	Make available excess water from the water supply bores and pipeline to Narromine Shire Council for supply to the residents of Tomingley	C	Email correspondence between Council and TGO was sighted showing compliance with this condition. Photos of pipework and rock flume where water discharges into dam was sighted. TGO advised that works have been completed.	Email correspondence with Council re:water supply Site Inspection	There are no recommendations.
16.6	Ensure that infrastructure and services installed for the Project, including the water supply bores and pipeline, electricity transmission line, appropriate buildings and hardstand areas, remain available for alternative uses following completion of the Project, provided that such uses are consistent with the final land uses identified in this document or any subsequent approval. Post-mining.	Not Triggered	Not yet triggered.	n/a	n/a
CONSULTATION					
17.1	Maintain a Community Consultative Committee (CCC), including representative members of the community and Narromine Shire Council. Within 6 months of receipt of project approval	C	Compliant as per previous IEA. The CCC minutes are uploaded online. The CCC representatives including contact details are also provided online and comprise of the correct groups as per this condition.	TGO Website GHD IEA 2015	There are no recommendations.
17.2	Regularly brief the CCC on activities within the Mine Site and seek feedback in relation to Project-related impacts whether real or perceived.	C	A sample of the CCC meeting minutes and agenda were sighted, these meetings are used to regularly brief the CCC on activities within the mine site.	CCC minutes CCC Agenda	There are no recommendations.
17.3	Maintain an environmental complaints line and register of complaints in accordance with the requirements of the Environment Protection Licence, once issued.	C	This is maintained on the TGO website. The complaints registers were also sighted.	TGO website Complaints register	There are no recommendations.
17.4	Respond promptly to any issue of concern or complaint raised by the community or a government agency.	C	Responses and actions for each complaint are provided within the complaints registers.	TGO website Complaints register	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding Administrative Conditions	Objective Evidence	Recommendation												
A1.1	<p>What the license authorises and regulates                      This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2.</p> <p>Initial site works: Establishment of processing plant, tailings storage facility and ancillary infrastructure including water pipeline, internal roads, offices and workshops.</p>	C	<p>A MOP has been prepared for the development. Section 2.1 'Project Description' of the MOP outlines the key construction works which adequately addresses all components of stage 1 construction and site preparation for 70 wind turbines.                      A site inspection confirmed that these project components are completed or underway.</p>	<p>Site Inspection                      MOP</p>	There are no recommendations.												
A1.2	<p>What the license authorises and regulates                      This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.                      Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</p> <table border="1"> <thead> <tr> <th>Scheduled Activity</th> <th>Fee Based Activity</th> <th>Scale</th> </tr> </thead> <tbody> <tr> <td>Crushing, Grinding or Separating</td> <td>Crushing, grinding or separating</td> <td>&gt; 500000 - 2000000 T processed</td> </tr> <tr> <td>Mineral Processing</td> <td>Mineral processing</td> <td>&gt; 500000 - 2000000 T processed</td> </tr> <tr> <td>Mining for Minerals</td> <td>Mining for minerals</td> <td>&gt; 500000 - 2000000 T produced</td> </tr> </tbody> </table>	Scheduled Activity	Fee Based Activity	Scale	Crushing, Grinding or Separating	Crushing, grinding or separating	> 500000 - 2000000 T processed	Mineral Processing	Mineral processing	> 500000 - 2000000 T processed	Mining for Minerals	Mining for minerals	> 500000 - 2000000 T produced	C	<p>A production summary is provided in the AEMRs. A summary of the data shows that none of the activities have exceeded the annual scale as stipulated in this condition.</p>	<p>AEMR 2016                      AEMR 2015</p>	There are no recommendations.
Scheduled Activity	Fee Based Activity	Scale															
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A2.1	<p>Premises or plant to which the licence applies                      The licence applies to the following premises:                      Premises Details                      TOMINGLEY GOLD MINE                      TOMINGLEY WEST ROAD                      TOMINGLEY, NSW 2869                      PART LOT 1 DP 254193, LOT 103 DP 755110, LOT 104 DP 755110, LOT 105 DP 755110, LOT 112 DP 755110, PART LOT 122 DP 755110, LOT 160 DP 755110, LOT 161 DP 755110, LOT 162 DP 755110, LOT 163 DP 755110, LOT 1 DP 1151198, PART LOT 2 DP 1151198, PART LOT 3 DP 1151198</p>	C	<p>Appendix 1 'Schedule of Land' of the Project Approval 09_0155 covers all lots and deposited plans as stipulated in A2.1 of the EPL.</p>	<p>Project Approval 09_0155 (Appendix 1)</p>	There are no recommendations.												
A3.1	<p>Information supplied to the EPA                      Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.                      In this condition the reference to "the licence application" includes a reference to:                      a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and                      b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.</p>	C	<p>The licence application was sighted and works and activities are generally carried out in accordance with the proposal contained in the licence application. All activities during the site inspection related to the mining and processing of gold.</p>	<p>EPL Application                      This audit                      EPL 20169</p>	There are no recommendations.												
<b>Discharges to Air and Water and Applications to Land</b>																	
P1.1	<p>Location of monitoring/discharge points and areas                      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.</p> <table border="1"> <thead> <tr> <th colspan="4">Air</th> </tr> <tr> <th>EPA identification no.</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Meteorological Weather Station</td> <td></td> <td>Onsite Tomingley Gold Operations</td> </tr> </tbody> </table>	Air				EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	1	Meteorological Weather Station		Onsite Tomingley Gold Operations	C	<p>An on site meteorological weather station has been installed on site in accordance with the EPL.</p>	<p>AQGHGMP                      Site Inspection</p>	There are no recommendations.
Air																	
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description														
1	Meteorological Weather Station		Onsite Tomingley Gold Operations														
P1.2	<p>Location of monitoring/discharge points and areas                      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 (pg 7).</p>	Not Triggered	<p>There is no table referred to under P1.2 of the EPL.</p>	<p>EPL 20169</p>	There are no recommendations.												
P1.3	<p>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 (pg 7).</p>	Noted	<p>n/a</p>	<p>n/a</p>	<p>n/a</p>												
P1.4	<p>Note: The monitoring requirements may be modified by the EPA subject to ongoing review of licence conditions and monitoring results.</p>	Noted	<p>The monitoring requirements have not been modified.</p>	<p>n/a</p>	<p>n/a</p>												

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation																																																																																				
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L1.1	<p>Pollution of waters</p> <p>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.</p>	NC	<p>The following items were observed during the inspection:</p> <ol style="list-style-type: none"> <li>Used batteries were located on the ground unbundled.</li> <li>Surface contamination (oil) of soils in the maintenance workshop. It is noted that this area will be decontaminated during Mine Closure.</li> <li>Petroleum drums on non-compliant banded pallets.</li> <li>TGO have only discharged once in the audit period which occurred on 2 December 2017. The pre-rain checklist that is required to be completed prior to a rain event was sighted for this particular discharge event dated 26/11/17. The incident report sent to the EPA, DPE, NSC and DRG on 11/12/17 was sighted. The sampling results for surface water on this date were also sighted which show exceedances of the limits within the EPL.</li> </ol> <p>Each of these issues have the potential to breach section 120 of the Protection of the Environment Operations Act 1997.</p>	<p>Site Inspection</p> <p>Pre-rain Inspection checklist 26/11/17</p> <p>Incident Report Sediment Basin 1 Discharge on 2 December 2017 dated 11/12/17</p>	<p>It is recommended that:</p> <ol style="list-style-type: none"> <li>The storage of all dangerous and hazardous goods across the site (and in particular in the compounds/workshops) is reviewed. Hazardous Materials storage plans for each storage location be prepared (in accordance with Dangerous Goods Legislation) and these plans provided to all contractors / sub-contractors.</li> <li>TGO regularly audit the storage and management of hazardous materials in all compounds/workshops.</li> </ol>																																																																																				
L2.1	<p>Concentration Limits</p> <p>For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.</p>	NC	<p>TGO have only discharged once in the audit period which occurred on 2 December 2017. The pre-rain checklist that is required to be completed prior to a rain event was sighted for this particular discharge event dated 26/11/17. The incident report sent to the EPA, DPE, NSC and DRG on 11/12/17 was sighted. The sampling results for surface water on this date were also sighted which show exceedances of the limits within the EPL table.</p>	AEMR 2017	<p>This incident is considered to be an isolated event, therefore, no recommendation for improvement has been made.</p>																																																																																				
L2.2	<p>Concentration Limits</p> <p>Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.</p>	NC	<p>Annual Return 2015 showed PH sample values of 10.74, 8.92, 10.05, 9.61. Annual Return 2016 showed a PH sample of 9.71 which are over the limit range from 6.5-8.5.</p>	<p>Annual Return 2015</p> <p>Annual Return 2016</p>	<p>It is recommended that TGO investigate the cause of the incidents and develop a plan to prevent future pH exceedances.</p>																																																																																				
L2.3	<p>Concentration Limits</p> <p>To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.</p>	Noted	n/a	n/a	n/a																																																																																				
L2.4	<p>Concentration Limits</p> <p>Water and/or Land Concentration Limits</p> <p>POINT 2</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <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>Cyanide (weak acid dissociable)</td> <td>milligrams per litre</td> <td></td> <td>20</td> <td></td> <td>30</td> </tr> </tbody> </table> <p>POINT 4,5,6,7,8</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <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>Arsenic</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>0.024</td> </tr> <tr> <td>Cadmium</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>0.0002</td> </tr> <tr> <td>Copper</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>0.0014</td> </tr> <tr> <td>Electrical conductivity</td> <td>microsiemens per centimetre</td> <td></td> <td></td> <td></td> <td>350</td> </tr> <tr> <td>Lead</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>0.0034</td> </tr> <tr> <td>Nickel</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>0.011</td> </tr> <tr> <td>Nitrogen (total)</td> <td>micrograms per litre</td> <td></td> <td></td> <td></td> <td>250</td> </tr> <tr> <td>pH</td> <td>pH</td> <td></td> <td></td> <td></td> <td>6.5- 8.5</td> </tr> <tr> <td>Phosphorus (total)</td> <td>micrograms per litre</td> <td></td> <td></td> <td></td> <td>20</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>50</td> </tr> <tr> <td>Zinc</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>0.008</td> </tr> </tbody> </table>	Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Cyanide (weak acid dissociable)	milligrams per litre		20		30	Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Arsenic	milligrams per litre				0.024	Cadmium	milligrams per litre				0.0002	Copper	milligrams per litre				0.0014	Electrical conductivity	microsiemens per centimetre				350	Lead	milligrams per litre				0.0034	Nickel	milligrams per litre				0.011	Nitrogen (total)	micrograms per litre				250	pH	pH				6.5- 8.5	Phosphorus (total)	micrograms per litre				20	Total suspended solids	milligrams per litre				50	Zinc	milligrams per litre				0.008	NC	<p>Please see L2.2.</p>	<p>Water monitoring records</p>	<p>Please refer to L2.2</p>
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L3.1	<p>Waste</p> <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> <table border="1"> <thead> <tr> <th>Code</th> <th>Waste</th> <th>Description</th> <th>Activity</th> <th>Other Limits</th> </tr> </thead> <tbody> <tr> <td>NA</td> <td>General or Specific exempted waste</td> <td>Waste that meets all the conditions of a Resource Recovery Exemption under clause 51A of the Protection of the Environment Operations (Waste) Regulation 2005</td> <td>As specified in each particular resource recovery exemption</td> <td>NA</td> </tr> </tbody> </table>	Code	Waste	Description	Activity	Other Limits	NA	General or Specific exempted waste	Waste that meets all the conditions of a Resource Recovery Exemption under clause 51A of the Protection of the Environment Operations (Waste) Regulation 2005	As specified in each particular resource recovery exemption	NA	C	<p>The site waste register was reviewed which has not reported the receipt of any waste at the site during the audit period.</p> <p>Inspection of the site and associated site interviews confirmed that there is currently no waste being received on site. Based on current site observations, this condition is assessed as compliant.</p>	<p>Management Assertion</p> <p>Site Inspection</p> <p>Waste register</p>	There are no recommendations.																																								
Code	Waste	Description	Activity	Other Limits																																																			
NA	General or Specific exempted waste	Waste that meets all the conditions of a Resource Recovery Exemption under clause 51A of the Protection of the Environment Operations (Waste) Regulation 2005	As specified in each particular resource recovery exemption	NA																																																			
L4.1	<p>Noise limits</p> <p>Limit Conditions</p> <p>Noise generated at the premises must not exceed the noise limits in the table below. The location groups referred to in the table below are indicated by Table 4 of 'Tomingley Gold Project – Noise and Blasting Assessment' (NBA) prepared by SLR Consulting dated September 2011 (Report Number 10-7910R1D10 Draft 10).</p> <table border="1"> <thead> <tr> <th>Location and Noise Assessment Group</th> <th>Day LAeq (15 minute)</th> <th>Evening LAeq (15 minute)</th> <th>Night LAeq (15 minute)</th> <th>Night LA1 (1 minute)</th> </tr> </thead> <tbody> <tr> <td>Group A, R1, R6</td> <td>36</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td>Group A, R5</td> <td>37</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>Group A, All other receivers</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>Group B, All receivers</td> <td>36</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td>Group C, R3</td> <td>49</td> <td>38</td> <td>38</td> <td>45</td> </tr> <tr> <td>Group C, R29</td> <td>48</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>Group C, All other receivers</td> <td>46</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>Group D, All receivers</td> <td>43</td> <td>38</td> <td>38</td> <td>46</td> </tr> <tr> <td>All other residential receivers</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	Location and Noise Assessment Group	Day LAeq (15 minute)	Evening LAeq (15 minute)	Night LAeq (15 minute)	Night LA1 (1 minute)	Group A, R1, R6	36	36	36	45	Group A, R5	37	37	37	45	Group A, All other receivers	35	35	35	45	Group B, All receivers	36	36	36	45	Group C, R3	49	38	38	45	Group C, R29	48	37	37	45	Group C, All other receivers	46	37	37	45	Group D, All receivers	43	38	38	46	All other residential receivers	35	35	35	45	NC	<p>Annual Noise Monitoring Assessment reports for 2016 and 2017 prepared by Muller Acoustic Consulting (MAC) were sighted which concluded that the noise emissions generated by TGO comply with relevant statutory noise limits specified in EPL conditions at all assessed locations. It is noted that R1 is not included in these reports.</p> <p>A sample of the monthly environmental monitoring reports available on the TGO website showed exceedances at the property Brooklands which is close to R23.</p> <p>A sample of the Monthly monitoring conducted by MAC was sighted, which concludes that noise limits are within the EPL limits / criteria.</p> <p>The AEMR 2017 notes an exceedance at R3/R29 on 15/2/17.</p> <p>The AEMR 2016 notes two noise exceedances including a 1dB exceedance at R23 on 28 June 2016 (evening) and a maximum 6 - 11 dB exceedance at R3/29 and R23 over the three nights of measurement, 11 - 13 October 2016 (evening/night).</p>	<p>MAC NMA (December 2016)</p> <p>MAC NMA (December 2017)</p> <p>Monthly Environmental Monitoring Reports</p> <p>AEMR 2016 and 2017</p>	TGO have investigated the exceedances and implemented mitigation measures. There are no further recommendations.
Location and Noise Assessment Group	Day LAeq (15 minute)	Evening LAeq (15 minute)	Night LAeq (15 minute)	Night LA1 (1 minute)																																																			
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Note:	Note: Refer to figure in Appendix 4 of Project Approval 09-0155 for noise locations. However, these criteria do not apply if the Proponent has an agreement with the relevant owner(s) of these residences/ land to generate higher noise levels, and the Proponent has advised the Department of Planning and Infrastructure and EPA in writing of the terms of this agreement.	Not Triggered	TGO do not have any agreements with landowners to generate higher noise levels.	n/a	There are no recommendations.																																																		
L4.2	<p>Limit Conditions</p> <p>For the purpose of condition L3.1:</p> <ul style="list-style-type: none"> <li>Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays.</li> <li>Evening is defined as the period 6pm to 10pm.</li> <li>Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holidays.</li> </ul>	C	The Annual Noise Monitoring Assessment reports prepared by Muller Acoustic Consulting (MAC) state that monitoring is undertaken in accordance with this condition.	<p>MAC NMA (December 2016)</p> <p>MAC NMA (December 2017)</p>	There are no recommendations.																																																		
L4.3	<p>Limit Conditions</p> <p>The noise limits set out in condition L3.1 apply under all meteorological conditions except for the following:</p> <ol style="list-style-type: none"> <li>Wind speeds greater than 3 metres/second at 10 metres above ground level.</li> <li>Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or</li> <li>Stability category G temperature inversion conditions.</li> </ol>	C	This is set out in section 3.2 'Operational Noise Criteria' of the NMP. Weather data is measured at the meteorological station.	NMP Monthly Environmental Monitoring Reports	There are no recommendations.																																																		
L4.4	<p>Limit Conditions</p> <p>For the purposes of condition L3.3:</p> <p>Data recorded by a meteorological station installed on site must be used to determine meteorological conditions; and</p> <p>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.</p>	C	<p>Weather data is measured at the meteorological station.</p> <p>Calibration and maintenance reports were reviewed for the meteorological weather station.</p> <p>The Annual Noise Monitoring reports state that "Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part D1.4 of Appendix D of the NSW Industrial Noise Policy (INP)".</p>	<p>Calibration and maintenance reports</p> <p>MAC NMA (December 2016)</p> <p>MAC NMA (December 2017)</p>	There are no recommendations.																																																		



Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
L4.5	<p>Limit Conditions</p> <p>To determine compliance:</p> <p>a) with the Leq(15 minute) noise limits in condition L3.1, the noise measurement equipment must be located:</p> <ul style="list-style-type: none"> <li>• approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or</li> <li>• within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable</li> <li>• within approximately 50 metres of the boundary of a National Park or a Nature Reserve.</li> </ul> <p>b) with the LA1(1 minute) noise limits in condition L3.1, the noise measurement equipment must be located within 1 metre of a dwelling façade.</p> <p>c) with the noise limits in condition L3.1 the noise measurement equipment must be located,</p> <ul style="list-style-type: none"> <li>• at the most affected point at a location where there is no dwelling at the location; or</li> <li>• at the most affected point within an area at a location prescribed by conditions L3.5(a) or L3.5(b).</li> </ul>	C	<p>TGO engages a specialist noise consultant (MAC Pty Ltd) to monitor operational noise levels in accordance with the requirements of EPL 20169.</p> <p>Section 2.1 of the Noise Monitoring Assessment (NMA) report dated December 2017 states the exact EPL 20169 requirement for noise monitoring as expressed under this condition.</p>	MAC NMA (December 2017)	There are no recommendations.
L4.6	<p>Limit Conditions</p> <p>A non-compliance of condition L3.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured:</p> <ul style="list-style-type: none"> <li>• at a location other than an area prescribed by conditions L3.5(a) and L3.5(b); and/or</li> <li>• at a point other than the most affected point at a location.</li> </ul>	Not Triggered	This scenario has not occurred.	n/a	There are no recommendations.
L4.7	<p>Limit Conditions</p> <p>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.</p>	C	The NSW Industrial Noise Policy (2000) has been replaced by the Noise Policy for Industry (2017). The NSW Industrial Noise Policy (2000) continues to be used when existing licence and consent conditions refer to the policy, except for Section 4 which has been replaced by the provisions in Fact Sheet C of the Noise Policy for Industry (2017). It is noted that the 2017 MAC annual NMA report refers to Appendix C.	MAC NMA (December 2017)	There are no recommendations.
L5.1	<p>Blasting</p> <p>Blasting Limits</p> <p>The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations 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.</p>	NC	TGO monitors blasts on site and uploads monitoring records on to the TGO website. Upon review of the records, it was found that three blast exceedances for airblast overpressure were observed during 2015 and two blast exceedances for airblast overpressure were observed during 2016. All blasts for 2017 were below the prescribed levels for overpressure and vibration. Due to the most recent records having no exceedances, no recommendations have been provided.	Blasting monitoring records	There are no recommendations.
L5.2	<p>Blasting Limits</p> <p>The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. 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.</p>	NC	See L5.1	Blasting monitoring records	There are no recommendations.
L5.3	<p>Blasting Limits</p> <p>Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations 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.</p>	C	No ground vibration exceedances have occurred in the audit period.	AEMR 2015 AEMR 2016 AEMR 2017	There are no recommendations.
L5.4	<p>Blasting Limits</p> <p>Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. 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.</p>	C	No ground vibration exceedances have occurred in the audit period.	AEMR 2015 AEMR 2016 AEMR 2018	There are no recommendations.
L5.5	<p>Blasting Limits</p> <p>Blasting at the premises may only take place between 9:00am - 5pm Monday to Saturday. Blasting is not permitted on Sundays or Public Holidays.</p>	C	This is set out in section 8.1.2 'Blasting Times & Frequency' of the BMP. A sample of Monthly Environmental Monitoring Reports were reviewed and found no blasts to be carried out on Sundays or outside the approved timeframes.	Monthly Environmental Monitoring Report January 2017, March 2017, June 2017, August 2017 and December 2017 BLMP	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
L5.6	Blasting Limits Blasting outside of the hours specified in L 4.5 can only take place with the written approval of the Environment Protection Authority (EPA).	C	This is set out in section 8.1.2 'Blasting Times & Frequency' of the BMP. A sample of Monthly Environmental Monitoring Reports were reviewed and found no blasts to be carried out on Sundays or outside the approved timeframes.	Monthly Environmental Monitoring Report January 2017, March 2017, June 2017, August 2017 and December 2017 BLMP	There are no recommendations.
L5.7	Blasting Limits The blasting limits do not apply if the Proponent has a written agreement with the relevant landowner, and has advised the Department of Planning and Infrastructure and EPA in writing of the terms of this agreement.	Not Triggered	TGO don't have any written agreements with landowners.	Management Assertion	There are no recommendations.
L5.8	Blasting Limits Blasting at the premises is limited to the following on each day on which blasting is permitted or as otherwise approved in writing by the EPA: a) a maximum of 3 blasts per day; This condition does not apply to blasts that generate ground vibration of 0.5mm/s or less at any residence on privately owned land, or blasts required to ensure the safety of the site or its workers.	C	Blast monitoring summary tables from January 2017 to December 2017 were reviewed. Blast timing was checked against the requirements under this condition and found to be compliant.	Monthly Environmental Monitoring Report January 2017, March 2017, June 2017, August 2017 and December 2017 BMP	There are no recommendations.
L6.1	Potentially offensive odour The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.	C	This is set out in Section 6.2 of the AQGHGMP, 'Odour'.  There was no offensive odours detected during the site inspection.  There have been no complaints in response to odour generated from mine activities.	Complaints Register 2017, 2016 and 2015 AQGHGMP	There are no recommendations.
Note:	Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environmental protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.	Not Triggered	There was no offensive odours detected during the site inspection.  There have been no complaints in response to odour generated from mine activities.	Complaints Register 2017, 2016 and 2015 AQGHGMP	There are no recommendations.
L6.2	Potentially offensive odour No condition of this licence identifies a potentially offensive odour for the purposes of Section 129 of the Protection of the Environment Operations Act 1997.	Noted	Clarification clause only.	n/a	n/a
<b>Operating Conditions</b>					
O1.1	Activities must be carried out in a competent manner 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.	O	Operations during the site inspection were generally observed to be carried out in a competent manner.  Some items requiring attention relating to battery storage and fuel storage have resulted in this condition being assessed as an observation.  Waste streams were observed to be separated and there were sufficient facilities for waste segregation. Recyclable bins were inspected and no significant waste contamination was observed. Spill kits were available for use as required. TGO also undertake regular inspection of the site.	Site Inspection Site inspection records	See Project Approval, Schedule 3, condition 49.
O2.1 (a)	Maintenance of plant and equipment 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	C	TGO advised that all plant and equipment must be checked against the 'Equipment Introduction TGO Site' checklist, an example of which was sighted. Completed pre-start checklists were sighted as well as the service scheduling register for plant on site. TGO also advised that an independent contractor does checks on plant and equipment. Protection Relay Test Reports were sighted.  During the site inspection, the plant and equipment was observed to be operated in proper and efficient manner. Based on the observation of plant and equipment being used on site at the time of the audit, this condition is assessed as compliant.	Site inspection Equipment Introduction TGO Site' checklist pre-start checklists Protection Relay Test Reports	There are no recommendations.
O2.1 (b)	Maintenance of plant and equipment All plant and equipment installed at the premises or used in connection with the licensed activity; b) must be operated in a proper and efficient manner.	C	During the site inspection, plant and equipment was generally observed to be operated properly and efficiently.	Site Inspection	There are no recommendations.
O3.1	Dust All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.	C	During the inspection, reasonably windy conditions were prevalent (Easterly -83 degrees at 30 kmh). Dust was visible from the processing plant, stockpiles and roads. There was no visual evidence of dust blowing off-site and impacting any neighbouring properties. A water truck was operating along the haul road. Note that the wind direction (during the audit) moved dust away from the township and closest residents.	Site Inspection	There are no recommendations.
O3.2	Dust All dust control equipment must be operable at all times with the exception of shutdowns required for maintenance.	C	Water trucks were observed to be operating during the site inspection.	Site Inspection	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
O3.3	Dust Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.	C	TGO advised that all trucks entering and exiting the site are covered.	Site Inspection Management assertion	There are no recommendations.
O4.1	Other operating conditions Bunding Requirements All above ground storage facilities containing flammable and combustible liquids must be banded in accordance with Australian Standard AS 1940-2004.	C	Diesel storage was observed in self banded tanks. Bulk oil storage was in self-banded tanks. Hazardous chemicals were observed to be stored properly. Oil drums were not effectively banded in one area. A small banded pallet was located under the drums, however it does not have sufficient capacity to meet the requirements. Note that isolated instances of unbanded storage was observed, however the majority of hydrocarbon and chemical storage was compliant and so this condition has been assessed as compliant.	Site Inspection	There are no recommendations.
O4.2	Other operating conditions A minimum of 500mm freeboard must be maintained on the Tailings Storage Facility at all times.	C	TGO advised that the TSF is inspected twice during each shift. Records of these inspections/logbooks were sighted.	TSF inspection /logbook records	There are no recommendations.
O4.3	Other operating conditions A minimum of 500mm freeboard must be maintained on the process water dam at all times.	C	It was advised that the process water dam has telemetry senses installed to ensure this condition is complied with. TGO also undertake inspections of the dam and alarms are sent to TGO staff if the dam reaches this limit.	Management Assertion	There are no recommendations.
O4.4	Other operating conditions Stormwater/Sediment - Construction Phase A stormwater management scheme must be prepared for all aspects of the construction phase of the development and must be implemented. Implementation of the scheme must mitigate the impacts of stormwater runoff from and within the premises during the construction. The scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the scheme should be consistent with the guidance contained in Managing Urban Stormwater: Control Handbook (available from the EPA)	Not Triggered	The site is not in the construction phase of the project, however this condition was found to be compliant within the previous IEA.	GHD IEA 2015	There are no recommendations.
<b>Monitoring and Recording Conditions</b>					
M1.1	Monitoring records 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.	C	Monitoring required by the EPL includes: noise, water, airblast overpressure and ground vibration levels. Monitoring records were sighted.	EPL 20169 monitoring records	There are no recommendations.
M1.2	Monitoring records All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them.	C	a) All environmental monitoring records reviewed during the audit were in a legible form. b) Monitoring records have been retained for a 4 year period. c) The monitoring records were provided to the auditors when asked, an EPA officer has not yet asked to see them.	monitoring records	There are no recommendations.
M1.3	Monitoring records The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	C	All samples reviewed include the records listed in this condition.	monitoring records	There are no recommendations.
M2.1	Requirement to monitor concentration of pollutants discharged 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.	C	Annual return for 2015 and 2016 were sighted which show compliance with this condition.	Annual Return 2015 Annual Return 2016	There are no recommendations.
M2.2	Requirement to monitor concentration of pollutants discharged Water and/ or Land Monitoring Requirements (pgs 15-17)	C	Sighted monitoring records for all parameters required by this EPL.	Annual Return 2015 Annual Return 2017	There are no recommendations.
M2.3	Requirement to monitor concentration of pollutants discharged For the purpose of the Table above  Special Frequency 1 = During Discharge	Noted	Clarification clause only.	n/a	n/a

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation																									
M3.1	Testing methods - concentration limits 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.	C	The Surface Water Monitoring Site Specific Procedure does not specifically state the Approved Methods Publication however TGO advised that only ALS Environmental is used for sampling who are NATA accredited. The ALS Certificate of Analysis (COA) was sighted which does not state the Approved Methods Statement was used.	Surface Water Monitoring Site Specific Procedure COC 18/5/17 Certificate of Analysis	It is recommended that the Surface Water Monitoring Site Specific Procedure is updated to include the methods used in testing and reference the Approved Methods Publication.																									
M4.1	Environmental monitoring To assess compliance with Condition L3.1, attended noise monitoring must be undertaken in accordance with Conditions L3.5 and: a) at each one of the locations listed in Condition L3.1; b) occur annually in a reporting period; c) occur during each day, evening and night period as defined in the NSW Industrial Noise Policy for a minimum of: • 1.5 hours during the day; • 30 minutes during the evening; and • 1 hour during the night. d) occur for three consecutive operating days.	NC	This is set out in section 2.1 of the NMA. Details of noise assessment results are detailed for each location listed in condition L4.1 except for R1. TGO noted that R1 is not included in the monitoring because TGO own the property. However, because R1 is still listed in the EPL, monitoring must be undertaken. As TGO owns the property, it is recommend that TGO seek a licence amendment from the EPA, if they want to stop monitoring at that location.	NMA 2017	As TGO owns the property at R1, it is recommended that TGO seek a licence amendment from the EPA, if they want to stop monitoring at that location. Alternatively, TGO should provide noise assessment data for R1 in future noise assessment reports.																									
M5.1	Weather monitoring For each point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns. Weather - Monitoring Point 1 - Weather Station on the mine site	C	The meteorological station monitoring report was sighted which samples and tests these parameters.	Meteorological Monitoring report January 2017 Sample of raw data	There are no recommendations.																									
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Units of measure</th> <th>Frequency</th> <th>Averaging Period</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Rainfall</td> <td>mm</td> <td>Continuous</td> <td>1 hour</td> <td>AM-4</td> </tr> <tr> <td>Wind direction @ 10 metres</td> <td>Degrees</td> <td>Continuous</td> <td>15 minute</td> <td>AM-2 &amp; AM-4</td> </tr> <tr> <td>Wind speed @ 10 metres</td> <td>m/s</td> <td>Continuous</td> <td>15 minute</td> <td>AM-2 &amp; AM-4</td> </tr> <tr> <td>Additional requirements -Siting -Measurement</td> <td></td> <td></td> <td></td> <td>AM-1 &amp; AM-4 AM-2 &amp; AM-4</td> </tr> </tbody> </table>	Parameter	Units of measure	Frequency	Averaging Period	Sampling Method	Rainfall	mm	Continuous	1 hour	AM-4	Wind direction @ 10 metres	Degrees	Continuous	15 minute	AM-2 & AM-4	Wind speed @ 10 metres	m/s	Continuous	15 minute	AM-2 & AM-4	Additional requirements -Siting -Measurement				AM-1 & AM-4 AM-2 & AM-4				
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M6.1	Recording of pollution complaints 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.	C	A copy of the complaints register was sighted. The records are legible.	Complaints register	There are no recommendations.																									
M6.2	Recording of pollution complaints The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.	C	The complaints register was sighted. The records included all details required by condition M6.2.	Complaints register	There are no recommendations.																									
M6.3	Recording of pollution complaints The record of a complaint must be kept for at least 4 years after the complaint was made.	C	Complaints documented during the audit period were sighted. Complaints have been retained for the past 4 years.	Complaints register	There are no recommendations.																									
M6.4	Recording of pollution complaints The record must be produced to any authorised officer of the EPA who asks to see them.	C	TGO indicated that any complaint records requested would be produced to the EPA on request.	Complaints register	There are no recommendations.																									
M7.1	Telephone Complaints Line 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.	C	A telephone complaints line is available via the TGO website.	TGO website	There are no recommendations.																									
M7.2	Telephone Complaints Line 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.	C	An advertisement to several local newspapers was sighted during the previous IEA. Contact details as well as a telephone complaints line are also available on the TGO website.	TGO website	There are no recommendations.																									
M7.3	Telephone Complaints Line The preceding two conditions do not apply until 3 months after: a) the date of the issue of this licence or 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	n/a	n/a	There are no recommendations.																									

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
			Reporting Conditions		
R1.1	<p>Annual Return Documents</p> <p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <ol style="list-style-type: none"> <li>1. a Statement of Compliance,</li> <li>2. a Monitoring and Complaints Summary,</li> </ol> <p>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.</p>	C	The Annual Return for 2015 and 2016 were sighted in the correct form and included a statement of compliance and a monitoring and complaints summary.	Annual return 2015 and 2017	There are no recommendations.
R1.2	<p>Annual Return Documents</p> <p>An Annual Return must be prepared in respect of each reporting period, except as provided below.</p> <p>Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.</p>	C	The EPA Annual Returns have been completed and submitted in December with emails from EPA being sighted. Licence anniversary date is 23 October.	Annual return 2015 and 2017 EPA Email acceptance of annual return	There are no recommendations.
R1.3	<p>Annual Return Documents</p> <p>Where this licence is transferred from the licensee to a new licensee:</p> <ol style="list-style-type: none"> <li>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</li> <li>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.</li> </ol> <p>Note: An application to transfer a licence must be made in the approved form for this purpose.</p>	Not Triggered	The EPL has not been transferred to a new licensee.	n/a	n/a
R1.4	<p>Annual Return Documents</p> <p>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:</p> <ol style="list-style-type: none"> <li>a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or</li> <li>b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.</li> </ol>	Not Triggered	This EPL has not been surrendered or revoked.	n/a	n/a
R1.5	<p>Annual Return Documents</p> <p>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').</p>	C	The EPA Annual Returns have been completed and submitted in December with emails from EPA being sighted confirming acceptance of annual return. Licence anniversary date is 23 October.	Annual return 2015 and 2017 EPA Email acceptance of annual return	There are no recommendations.
R1.6	<p>Annual Return Documents</p> <p>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.</p>	C	Annual returns are retained by TGO.	Annual return 2015 and 2017	There are no recommendations.
R1.7	<p>Annual Return Documents</p> <p>Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:</p> <ol style="list-style-type: none"> <li>a) the licence holder; or</li> <li>b) by a person approved in writing by the EPA to sign on behalf of the licence holder.</li> </ol>	C	Sighted signed copy of Annual Returns by David Ian Chalmers, Managing Director Alkane Resources and Karen Brown, Company Secretary.	Annual return 2015 and 2017	There are no recommendations.
R1.8	<p>Annual Return Documents</p> <p>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.</p>	Noted	Sighted signed copy of Annual Returns by David Ian Chalmers, Managing Director Alkane Resources and Karen Brown, Company Secretary.	Annual return 2015 and 2017	There are no recommendations.
R2.1	<p>Notification of environmental harm</p> <p>Notifications must be made by telephoning the Environment Line service on 131 555.</p> <p>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.</p>	C	Correspondence between TGO and the EPA as well as the DPE was sighted for any non-conformances including those where notification is not necessary. TGO have maintained a good relationship with the local EPA representative. A report to the EPA detailing what occurred during and after the discharge event on 2nd Dec 2017 was sighted and complied with this condition.	Email correspondence between TGO and EPA Discharge report to EPA	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
R2.2	Notification of environmental harm The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	C	TGO have a PIRMP in place that dictates how to respond to pollution incidents. A report to the EPA detailing what occurred during and after the discharge event on 2nd Dec 2017 was sighted, dated 11 Dec and complied with this condition. Email correspondence informing EPA of other incidents such as a fauna incident in the TSF and blast exceedance were also sighted.	Email correspondence between TGO and EPA Discharge report to EPA	There are no recommendations.
R3.1	Written Report Where an authorised officer of the EPA suspects on reasonable grounds that: a) where this licence applies to premises, an event has occurred at the premises; or b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	C	The Auditor was not able to verify any requests from the EPA for a written report. However, evidence was sighted through email correspondence between EPA and TGO including the provision of sampling test results and incident reports being sent to the EPA.	Email correspondence between TGO and EPA Discharge report to EPA Fauna incident sample to EPA	There are no recommendations.
R3.2	Written Report 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.	C	See R3.1	Email correspondence between TGO and EPA Discharge report to EPA Fauna incident sample to EPA	There are no recommendations.
R3.3	Written Report 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.	C	See R3.1	Email correspondence between TGO and EPA Discharge report to EPA Fauna incident sample to EPA	There are no recommendations.
R3.4	Written Report 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	No further requests have been received.	n/a	There are no recommendations.
R4.1	Other reporting conditions Noise Monitoring Report A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the yearly monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include: a) an assessment of compliance with noise limits presented in Condition L3.1; and b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits contained in Condition L3.1.	C	The Annual Noise Monitoring Assessments (NMA) undertaken by Muller Acoustic Consulting dated December were sighted. This report includes the clauses within this condition and are available on the TGO website.	NMA 2017 NMA 2016 NMA 2015	There are no recommendations.
R4.2	Other reporting conditions Reporting Fauna Deaths or Injury The licensee must report any incident of death or injury (including bogging or miring) of fauna (avian or terrestrial) associated with the Tailings Impoundment or tailings runoff dam by telephoning the EPA's Pollution Line 131 555 as soon as the licensee becomes aware of the incident.  The licensee must provide written details of the notification with respect of the above condition to the EPA within 7 days of the date which the incident occurred	C	Written details of fauna deaths within the TSF were sighted by the auditor and provided to the EPA in writing.	Fauna incident report EPA correspondence	There are no recommendations.
<b>General Conditions</b>					
G1.1	Copy of licence kept at the premises or plant A copy of this licence must be kept at the premises to which the licence applies.	C	A copy of this EPL was provided to the Auditors during the site inspection.	Site Inspection	There are no recommendations.
G1.2	Copy of licence kept at the premises or plant The licence must be produced to any authorised officer of the EPA who asks to see it.	C	TGO advised that a copy of the EPL would be produced to any EPA officer who asks to see it.	Site Inspection	There are no recommendations.
G1.3	Copy of licence kept at the premises or plant The licence must be available for inspection by any employee or agent of the licensee working at the premises.	C	A copy of this EPL was provided to the Auditors during the site inspection, however it was not stored in its location at the reception desk.	Site Inspection	It is recommended that the EPL is made available on site in a central location (e.g. reception desk) so that it is available for inspection by any employee or agent of the licensee working at the premises.
G2.1	Signage The location of each Monitoring and Discharge point must be clearly marked by signs that indicate the point identification number used in this licence and be located as close as practical to the point.	C	Sighted signage of monitoring locations during site inspection	Site Inspection	There are no recommendations.

Tomingley Gold Operations - Alkane Resources Ltd  
Independent Environmental Audit  
Detailed Findings and Recommendations  
Mining Lease #1684

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
<b>Notice to Landholders</b>					
1(a)	Notice to Landholders (a) Within a period of three months from the date of grant/renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.	<b>Not Triggered</b>	ML 1684 is located on land owned by TGO, and therefore this condition is not triggered.	Mining Lease 1684	n/a
1 (b)	Notice to Landholders (b) If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.	<b>Not Triggered</b>	ML 1684 is located on land owned by TGO, and therefore this condition is not triggered.	Mining Lease 1684	n/a
<b>Environmental Harm</b>					
2	Environmental Harm The lease holder must implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of any activities under this lease. (b) For the purposes of this condition: (i) environment means components of the earth, including: (A) land, air and water, and (B) any layer of the atmosphere, and (C) any organic or inorganic matter and any living organism, and (D) human-made or modified structures and areas, and includes interacting natural ecosystems that include components referred to in paragraphs (A)-(C). (ii) harm to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution, contributes to the extinction or degradation of any threatened species, populations or ecological communities and their habitats and causes impacts to places, objects and features of significance to Aboriginal people.	C	Key environmental issues are managed in accordance with the TGO Environmental Management Plans (EMPs) prepared in accordance with the requirements of the Project approval. All management plans have been approved to date. All mining operations are managed in accordance with the TGO EMPs.	MOP Management Plans	There are no recommendations.
<b>Mining Operations Plan</b>					
3a	Mining Operations Plan 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.	C	Mining operations are carried out generally in accordance with the MOP. The Second MOP has been approved as per the previous IEA.	Management Assertion Site Inspection GHD IEA 2015	There are no recommendations.
3b	Mining Operations Plan 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 in order to prevent and or 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 of this lease; and • have regard to any relevant guidelines adopted by the Director-General.	C	(i) Plans 3A to 3G show the status (and areas to be disturbed) at the end of each year throughout this MOP term. The MOP identifies mine disturbance for each of the domains. (ii) Plans 3A to 3G show the status at the end of each year throughout this MOP term. (iii) The MOP provides a summary of rehabilitation during the MOP term. In order to achieve the nominated post mining land use goals, the objectives of rehabilitation activities are presented in Table 12. Plan 4 shows the final rehabilitation and post mining land use. (iv) Included in Section 3 'Environmental issues management'. (v) The Project Approval is included as Appendix 2 of the MOP. EPL 20169 is included as Appendix 4 of the MOP. The ML 1684 is included as Appendix 1 of the MOP. Section 1.3 'Current consents, authorisations and licenses' presents those held in relation to the mine.	MOP	There are no recommendations.



Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
3c	Mining Operations Plan The leaseholder may apply to the Director-General to amend an approved MOP at any time.	Noted	n/a	n/a	n/a
3d	Mining Operations Plan It is not a breach of this condition if: (i) the operations constituting the breach were necessary to comply with a lawful order or direction given under the Mining Act 1992, the Environmental Planning and Assessment Act 1979, Protection of the Environment Operations Act 1997, Mine Health and Safety Act 2004 / Coal Mine Health and Safety Act 2002 and Mine Health and Safety Regulation 2007 / Coal Mine Health and Safety Regulation 2006 or the 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 Triggered	There have been no breaches of this condition.	Management Assertion MOP Site Inspection	There are no recommendations.
3e	Mining Operations Plan A MOP ceases to have effect 7 years after date of approval or other such period as identified by the Director-General.	C	The MOP is for the period 1 April 2014 to 31 March 2021.	MOP	There are no recommendations.
<b>Environmental Management Report</b>					
4a	Environmental Management Report The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the Director-General.	C	Annual Environmental Management Reports (AEMR) for TGO have been submitted each year from 2013 to 2017. Evidence of submission to DPI was sighted.	AEMRs 2013-2017 Notice of Satisfactory EMR 30/03/16	There are no recommendations.
4b	Environmental Management Report The EMR must: (i) report against compliance with the MOP; (ii) report on progress in respect of rehabilitation completion criteria; (iii) report on the extent of compliance with regulatory requirements; and (iv) have regard to any relevant guidelines adopted by the Director General.	C	(i) Rehabilitation activities against the MOP are described in the AEMR. (ii) Section 8 'Rehabilitation' cover rehabilitation progress in detail. (iii) Statement of compliance with approvals is detailed in section 1. (iv) Section 2.1 states the guidelines used in producing the AEMR.	AEMR 2016 AEMR 2017	There are no recommendations.
<b>Environmental Incident Report</b>					
5	Environmental Incident Report The lease holder must report any environmental incidents. The report must: (i) be prepared according to any relevant Departmental guidelines; (ii) be submitted within 24 hours of the environmental incident occurring; (b) For the purposes of this condition, environmental incident includes: (i) any incident causing or threatening material harm to the environment (ii) any breach of Conditions 1 to 9 and 11 to 24; (iii) any breach of environment protection legislation; or, (iv) a serious complaint from landholders or the public. (c) For the purposes of this condition, harm to the environment is material if: (i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or (ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, where loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.	C	TGO have a PIRMP in place that dictates how to respond to pollution incidents Correspondence between TGO and government departments was sighted for any non-conformances including those where notification is not necessary. TGO have maintained a good relationship with the local EPA representative. A report to the EPA detailing what occurred during and after the discharge event on 2nd Dec 2017 was sighted and complied with this condition. Email correspondence informing EPA of other incidents such as a fauna incident in the TSF and blast exceedance were also sighted.	Email correspondence between TGO and EPA Discharge report to EPA	There are no recommendations.
<b>Additional Environmental Reports</b>					
6	Additional Environmental Reports Additional environmental reports may be required from time to time as directed in writing by the Director-General and must be lodged as instructed.	Not Triggered	No directions have been received from the Director-General in regards to additional environmental reports, however a direction was given to update the MOP in reference with condition 3 above.	Letter direction DPI	There are no recommendations.
<b>Rehabilitation</b>					
2	Rehabilitation Any disturbance as a result of activities under this lease must be rehabilitated to the satisfaction of the Director-General.	C	Progress towards rehabilitation objectives and criteria are reported annually in an Annual Environmental Management Report (AEMR). The Rehabilitation Management Plan is also part of the MOP.	MOP AEMRs	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
<b>Working Requirement</b>					
9	The lease holder must: (a) ensure that at least 30 competent people are efficiently employed in relation to the mining process or mining operations on the lease area or (b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$525,000.00 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.	C	TGO prepare a corporate monthly report which includes KPI tables which was sighted and includes how many FTE employees (including contractors) are employed on site. TGO currently have 146 FTE employees and contractors. It was also shown that TGO have a \$5.3 million budget per month to expend on operations.	Corporate Monthly Report	There are no recommendations.
<b>Blasting</b>					
10a	Ground Vibration The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment, Climate Change and Water.	C	See L5.1 of the EPL.	Blasting monitoring records	There are no recommendations.
10b	Blast Overpressure The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment, Climate Change and Water.	NC	See L5.1 of the EPL.	Blasting monitoring records	See L5.1 of the EPL.
<b>Safety</b>					
11	Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be notified in writing to the Department and filled in or otherwise rendered safe to a standard acceptable to the Director-General.	C	There are no historic workings on site such as mine shafts etc. Exploration drilling occurs in the pits which are filled in afterwards. The TGO site is fully fenced with security fencing and warning signs, to protect the community from mining operations.	Management Assertion Induction Site Inspection	There are no recommendations.
<b>Prevention of soil erosion and pollution</b>					
12	Prospecting operations must be carried out in a manner that does not cause or aggravate air pollution, water (including groundwater) pollution, soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan.	C	All operations are managed in accordance with the Environmental Management Plans prepared for the site.	EMPs	There are no recommendations.
<b>Transmission lines, communication lines and pipelines</b>					
13	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions stipulated.	Not Triggered	This condition is relating to pre-operations. Lines have since been relocated away from the site.	Management Assertion Site Inspection	There are no recommendations.
<b>Roads and tracks</b>					
14a	The lease holder must pay to the relevant roads authority in control of the road or track the reasonable costs incurred by the roads authority in making good any damage to roads or tracks caused by operations carried out under this lease less any amount paid or payable from the Mine Subsidence Compensation Fund.	Not Triggered	TGO advised that they have not been requested to pay any costs to date associated with Tomingley West Road.	Management Assertion Site Inspection Voluntary Planning Agreement	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
14b	During wet weather the use of any road or track must be restricted so as to prevent damage to the road or track.	C	All roads and tracks on site have been built to all weather conditions. However, operations do stop during wet weather due to slippery road surfaces.	Management Assertion Site Inspection	There are no recommendations.
14c	Existing access tracks should be used for all operations where reasonably practicable. New access tracks must be kept to a minimum and be positioned in order to minimise damage to the land, watercourses or vegetation.	C	No new access tracks have been constructed.	Management Assertion Site Inspection	There are no recommendations.
14d	Temporary access tracks must be rehabilitated and revegetated to the satisfaction of the Director-General as soon as reasonably practicable after they are no longer required under this lease.	C	TGO advised that there are no temporary access tracks. The Rehabilitation management Plan has been approved and is included in the MOP. AEMRs also detail progressive rehabilitation.	Management Assertion Site Inspection MOP RMP AEMR	There are no recommendations.
<b>Trees and vegetation</b>					
15a	The lease holder must not fell trees, strip bark or cut timber on any land subject of this lease without the consent of the landholder who is entitled to the use of the timber.	<b>Not Triggered</b>	TGO are the land holder.	Management Assertion	There are no recommendations.
15b	The lease holder must contact Forests NSW and obtain any required permit, licence or approval before taking timber from any Crown land within the lease area.	<b>Not Triggered</b>	There is no crown land within the lease area.	Management Assertion	There are no recommendations.
<b>Use of Mercury and Cyanide</b>					
16	The lease holder must not use mercury or cyanide or any solution containing cyanide for the recovery of minerals on the lease area without the prior written approval of the Minister and subject to any conditions stipulated.	C	TGO have received approval from the Secretary for the use of cyanide in the recovery of gold. A letter was sighted dated 24/08/2016 and is valid until 30/09/2019.	Letter of approval for use of cyanide 24/08/16	There are no recommendations.
<b>Resource Recovery</b>					
17a	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, notice in writing to the lease holder may be given requiring the holder to recover such minerals.	<b>Not Triggered</b>	No notice has been issued by the Director-General.	Management Assertion	n/a
17b	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.	<b>Not Triggered</b>	No notice has been issued by the Director-General.	Management Assertion	n/a
17c	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.	<b>Not Triggered</b>	No notice has been issued by the Director-General.	Management Assertion	n/a
<b>Indemnity</b>					
18	The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.	Noted	n/a	n/a	n/a

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
<b>Security</b>					
19a	This authorisation is subject to a condition that the holder of the authorisation is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the authorisation, including obligations of all or any kind under the authorisation that may arise in the future.	C	TGO maintain a security deposit as required by this clause. Compliant as per previous IEA.	GHD IEA 2015	There are no recommendations.
19b	The amount of the security deposit to be provided has been assessed by the Director General of the Department of Trade and Investment, Regional Infrastructure and Services at \$3,291,000.00.	C	See ML condition 19a.	GHD IEA 2015	There are no recommendations.
19c	The security deposit is to be provided by way of a cash deposit (with no entitlement to any interest thereon) or in such other form as may be approved by the Director General (or their delegate).	C	See ML condition 19a.	GHD IEA 2015	There are no recommendations.
<b>Prescribed Dam</b>					
22a	(a) Notwithstanding any Mining Operations Plan, the lease holder must not mine within any part of the lease area which is within the notification area of the Tomingley Residue Storage Facility without the prior written approval of the Minister and subject to any conditions stipulated.	C	Mining is occurring within the notification area, however this has been endorsed and approved by the Minister. Compliant as per previous IEA.	GHD IEA 2015	There are no recommendations.
22b	Where the lease holder desires to mine within the notification area he or she must: (i) at least twelve (12) months before mining is to commence or such lesser time as the Minister may permit, notify the Minister of the desire to do so. A plan of the mining system to be implemented must accompany the notice; and (ii) provide such information as the Minister may direct.	C	See ML condition 22a.	GHD IEA 2015	There are no recommendations.
22c	The Minister must not, except in the circumstances set out in subparagraph (ii), grant approval unless sub-paragraph (i) of this paragraph has been complied with. This subparagraph is complied with if: (i) the Dams Safety Committee as constituted by Section 7 of the Dams Safety Act 1978 and the owner of the dam have been notified in writing of the desire to mine referred to in paragraph (b). (ii) the notifications referred to in clause (a) are accompanied by a description or plan of the area to be mined. (iii) the Director-General has complied with any reasonable request made by the Dams Safety Committee or the owner of the dam for further information in connection with the mining proposal. (iv) the Dams Safety Committee has made its recommendations concerning the mining proposal or has informed the Minister in writing that it does not propose to make any such recommendations; and (v) where the Dams Safety Committee has made recommendations the approval is in terms that are: in accordance with those recommendations; or where the Minister does not accept those recommendations or any of them - in accordance with a determination under sub paragraph (ii) of this paragraph. (vi) Where the Minister does not accept the recommendations of the Dams Safety Committee or where the Dams Safety Committee has failed to make any recommendations and has not informed the Minister in writing that it does not propose to make any recommendations, the approval shall be in terms that are, in relation to matters dealing with the safety of the dam: as determined by agreement between the Minister and the Minister administering the Dams Safety Act 1978; or in the event of failure to reach such agreement - as determined by the Premier.	C	Compliant as per previous IEA.	GHD IEA 2015	There are no recommendations.
22d	The Minister, on notice from the Dams Safety Committee, may at any time or times: (i) cancel any approval given where a notice pursuant to Section 18 of the Dams Safety Act 1978 is given. (ii) suspend for a period of time, alter, omit from or add to any approval given or conditions imposed.	<b>Not Triggered</b>	The approval has not been cancelled or suspended.	Management Assertion GHD IEA 2015	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Suspension of Mining Operations					
23	The holder of a mining lease may not suspend mining operations in the mining area other than in accordance with the consent of the Minister.	C	Mining operations are ongoing.	Site Inspection	There are no recommendations.
Cooperation Agreement					
24	The lease holder must make every reasonable attempt, and be able to demonstrate their attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issues such as: <ul style="list-style-type: none"> <li>• access arrangements</li> <li>• operational interaction procedures</li> <li>• dispute resolution</li> <li>• information exchange</li> <li>• well location</li> <li>• timing of drilling</li> <li>• potential resource extraction conflicts and</li> <li>• rehabilitation issues.</li> </ul>	<b>Not Triggered</b>	There are no overlapping titles.	Management Assertion	There are no recommendations.

Tomingley Gold Operations - Alkane Resources Ltd  
 Independent Environmental Audit  
 Detailed Findings and Recommendations  
 WAL Conditions

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
<b>Conditions</b>					
<b>Conditions Imposed Pursuant to a Statutory Management Plan</b>					
1	Conditions Imposed Pursuant to a Statutory Management Plan This licence entitles its holder to the specified shares in the available water from the specified water source as described in this licence.	Noted	Clarification clause only. The water source as described in this licence is the Lower Macquarie Groundwater Source zone 6 (Woodlands Borefield). The requirements for this water source is referenced in the WMP.	WMP	There are no recommendations.
2	Conditions Imposed Pursuant to a Statutory Management Plan The water supply work nominated by this licence is the water supply work authorised by a works approval nominated by this licence.	Noted	Clarification clause only.	n/a	There are no recommendations.
3	Conditions Imposed Pursuant to a Statutory Management Plan The licence holder must only take water under this licence using the water supply work nominated by this licence, unless otherwise allowed by the act or the plan.	C	As per condition 2 above, the nominated works approval is 80W A705442. The water supply work is the Woodlands Borefield which is the only water supply work for the site.	Management Assertion WMP	There are no recommendations.
4	Conditions Imposed Pursuant to a Statutory Management Plan The licence holder must comply with the terms of the extraction component specified on this licence, including the times, rates or circumstance in which, and the areas or locations from which, water may be taken under this licence, locations from which, water may be taken under this licence, subject to any extraction restrictions in local impact area.	C	The licence allows for a 1000 ML/year extraction limit and this is reflected within the WMP. The licence states that "Subject to conditions water may be taken at any time or rate". No other restrictions apply.	Management Assertion WMP	There are no recommendations.
5	Conditions Imposed Pursuant to a Statutory Management Plan The licence holder must comply with all applicable available water determination(s).	Noted	TGO advised that no determination(s) are applicable.	n/a	There are no recommendations.
6	Conditions Imposed Pursuant to a Statutory Management Plan The licence holder must not take more water than is allowed pursuant to an applicable AWD unless the taking is pursuant to a lawful transfer or assignment under chapter 3 part 2 of the act.	C	A screenshot of the telemetry system was sighted. TGO advised that the system design does not allow TGO to exceed licence allocations. To exceed, the pump would need to run at full capacity 365 days per year which is not physically possible, due to pipe sizing.	Telemetry system screenshot Management assertion	There are no recommendations.
7	Conditions Imposed Pursuant to a Statutory Management Plan The licence holder must comply with all restrictions and reductions of extraction rates declared or ordered by the minister to apply in a local impact area.	Not Triggered	n/a	n/a	n/a
8	Conditions Imposed Pursuant to a Statutory Management Plan The licence holder must comply with the water allocation account management rules established by the plan.	Not Verified	TGO did not provide any evidence regarding this condition and advised that this condition was N/A.	n/a	n/a
9	Conditions Imposed Pursuant to a Statutory Management Plan The licence holder must not take water under this licence if the resulting debit from the water allocation account for this licence will exceed the volume of water in the account.	C	A screenshot of the telemetry system was sighted. TGO advised that the system design does not allow TGO to exceed licence allocations. To exceed, the pump would need to run at full capacity 365 days per year which is not physically possible, due to pipe sizing.	Telemetry system screenshot Management assertion	There are no recommendations.
10	Conditions Imposed Pursuant to a Statutory Management Plan The licence holder must pay any charge imposed by the minister under section 114 of the act or regulations, for the cost of activities or works under the plan.	Not Triggered	TGO advised that no charge has been imposed to date.	Management assertion WaterNSW	n/a
11	Conditions Imposed Pursuant to a Statutory Management Plan The licence holder must not take water through a water supply work located in areas where the extraction is likely to cause an adverse local impact on water level, water quality, aquifer integrity or on groundwater dependent ecosystems.	C	TGO advised that this was considered as part of the original Environmental Assessment for the project.	Management assertion	There are no recommendations.
12	Conditions Imposed Pursuant to a Statutory Management Plan The licence holder must not take water for any purpose from a water supply work nominated on this licence if the water supply work is within 40 metres of a river unless the water supply work was authorised by licence under the water act 1912.	C	The water supply work is not within 40m of a river and was considered during the original Environmental Assessment for the project.	Management assertion	There are no recommendations.

Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
13	Conditions Imposed Pursuant to a Statutory Management Plan The licence holder must not take water for any purposes other than domestic consumption and stock watering purposes other than in exercising native title rights through a water supply work nominated on this licence if the water supply is within 200 metres of any high priority groundwater dependent ecosystem listed in schedule 4 of the plan, unless the water supply work was authorised by licence under the Water Act 1912.	C	The required water licence is in place and the pumping of groundwater for use on the mine has been approved by WaterNSW.	Management assertion WaterNSW	There are no recommendations.
14	Conditions Imposed Pursuant to a Statutory Management Plan Where the licence holder is a member of a registered group formed under the plan, the licence must not cause or allow the combined restricted extraction calculated to apply to the group in any one year, to be exceeded.	Not Triggered	TGO is not part of a registered group.	n/a	n/a
15	Conditions Imposed Pursuant to a Statutory Management Plan The licence holder must comply with the access licence dealing principles as gazetted under section 71Z of the act and all other access licence dealing rules established by the plan.	Noted	Clarification clause only.	n/a	There are no recommendations.

Tomingley Gold Operations - Alkane Resources Ltd					
Detailed Findings and Recommendations					
Department of Industry – Water (DoI Water) Requests					
Clause	DoI Water Request	Compliance	Audit Finding	Objective Evidence	Recommendation
1	DoI Water requests that the audit considers compliance with the relevant water licensing requirements for the mining operation, specifically: Assessment as to whether the project holds the required water entitlements and licences under the Water Management Act 2000 or Water Act 1912 (as applicable);	C	This is set out in Appendix B of the Water Management Plan. Several licences are held by TGO under the Water Act 1912 for groundwater monitoring bores including 80BL245428, 80BL245429, 80BL245430, 80BL245431, 80BL245432, 80BL620426. The WALs currently held by TGO under the WM Act 2000 include: 80CW809661 for surface water and 80WA705442 and WAL20270 for groundwater.	WMP	There are no recommendations.
2	DoI Water requests that the audit considers compliance with the relevant water licensing requirements for the mining operation, specifically: Compliance with the conditions of any water licences/approvals held.	C	This audit has reviewed compliance against the conditions of the WAL20270.	WAL20270	There are no recommendations.
3	DoI Water requests that the audit considers compliance with the relevant water licensing requirements for the mining operation, specifically: Identification of all water storages for the mine and identification of their licensing status being either exempt, subject to harvestable rights or regulated via a Water Access Licence.	C	This is set out in Appendix B of the Water Management Plan. Landholders are permitted to intercept and store a proportion of runoff from their property without a licence under the WM Act. In addition, no licence is required for water stored within dams that: - Control or prevention of soil erosion. - Capture, contain and recirculate drainage. - Have no catchment (i.e. "turkey's nests"). The existing surface water storages that are part of TGO all fall into one of the above categories and therefore do not require licensing under the WM Act.	WMP	There are no recommendations.
4	DoI Water requests that the audit considers compliance with the relevant water licensing requirements for the mining operation, specifically: Quantification of both active and passive take by the project from each relevant water source and a comparison against previous predictions.	Not Audited	The request is outside of the scope of this Independent Audit.		



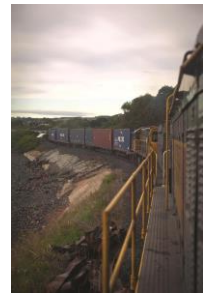
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