APPENDIX 1

Blasting Modification Application History.

- 15th May 2012 EPA advised CCR that a Development Consent Modification would need to be approved by Cobar Shire Council to allow blasting to take place at Site.
- 28th May 2012 CCR wrote to EPA requesting advice as to exactly what information EPA would require to support a Development Consent Modification as Cobar Shire Council had advised that it would support whatever EPA required.
- 7th June EPA provided a list of requirements.
- 26th June Development Consent Application addressing all issues raised by EPA, submitted to Cobar Shire Council. It was registered on 4th July.
- 26th July EPA requested additional information. This request was relayed to CCR by CSC on 2nd August.
- 6th August CCR provided the requested information.
- 31st August EPA issued its GTA's. These were relayed to CCR by CSC on 6th Sept.
- 11th September CCR requested some changes to the GTA's.
- 21st September EPA requested more information.
- 25th September CCR responded to the EPA's request.
- 12th October EPA issued a letter in which it accepted most (but not all) of CCR's requested changes to the ETA's.
- 15th October CCR advised the EPA and CSC that it was happy to accept the EPA's revised conditions.

15 October 2012

Mr Brad Tanswell
Acting Head Pesticides, Operations and Planning
Environment Protection Authority
P.O. Box 2111
Dubbo
NSW 2830

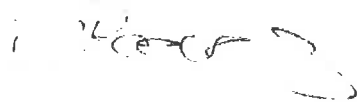
Dear Brad,

Re Blasting Conditions

I refer to your letter to Mr Trevor Shard dated 12 October 2012 concerning CCR's request that the EPA's General Terms of Approval issued on 31 August be modified.

I am pleased to advise that CCR accepts amended conditions L7.5 and L7.7 as proposed in your letter and looks forward to this matter being finalised as soon as possible.

Yours sincerely,



Stephanie Reeves

Legal Counsel

Cobar Consolidated Resources Ltd

Cc Mr Garry Ryman

25 September 2012

Mr Brad Tanswell
Acting Head Pesticides, Operations and Planning
Environment Protection Authority
P.O. Box 2111
Dubbo
NSW 2830

Dear Brad,

Re: Wonawinta Blasting Request

I refer to your letter addressed to Mr Trevor Shard dated 21 September regarding the abovementioned matter.

I would like to assure you that under normal circumstances we would operate in accordance with the restrictions outlined by the EPA in its General Terms and Conditions. However, it is possible that due to the nature of our business (ie the fact that we operate continuously 24 hours per day 7 days per week) we would wish to conduct a blast on a weekend, or in more than one pit on one day– this being to sustain business continuity.

In response to your request for further information I note as follows;

1. The maximum number of blasts we would wish to conduct per day, would be one blast per pit. As you know, we currently have two pits in operation, however we have approval to operate an additional two pits during the life of the Mine, hence the maximum number of blasts we would wish to conduct in total per day, is three (as the first pit will not be operable when the last pit is opened up). Please note that these blasts will be very small relative to other Open Cut mines and that under normal operating conditions we would only be conducting one blast per day, if at all.

2. Under normal operating conditions we would blast between 9am and 5pm as per your standard conditions. However it is possible that during daylight saving periods we would wish to blast between 6am and 8pm, to avoid the heat of the day. We do not wish to blast before sunrise or after sunset on any day.

3. There will be a minimum of half an hour between blasts.

4. As noted above, blasting might take place in all four pits either currently in operation or proposed to be in operation at Wonawinta. They are Manuka Pit, Boundary Pit, Bimble Pit and Belah Pit.

5. As already confirmed with the EPA, the maximum MIC for each blast will be 40kg.

6. Our justification for wishing to conduct blasting in a way that is different to the standard blasting conditions is that unlike almost every other mine in NSW, Wonawinta is very remotely located and its day to day operations do not disturb

anyone. As you know from your own visits to the Operation, and as already described to the EPA, the Operation is 120km south of Cobar and 1.75km from the nearest homestead (which is unoccupied throughout most of the year). Should a representative of your noise department wish to visit the Operation to verify this statement, we would be happy to welcome them to Site.

Please do not hesitate to contact me if you would like any further information as we are keen to finalise this matter as soon as possible.

Kind Regards,

Yours sincerely

Stephanie Reeves
Legal Counsel
Cobar Consolidated Resources Ltd

Cc Damien Rindfleish

11 September 2012

Mr Damien Rindfleish
Regional Operations Officer
NSW Environment Protection Authority
48-52 Wingewarra St
Dubbo NSW 2830

Dear Damien,

Re:Wonawinta Silver Mine. Application to Modify Development Consent 2010/LD-0007 to allow blasting at Site.

I refer to the additional conditions proposed to be imposed by the EPA upon EPL No. 20020 prior to blasting being allowed to take place at Wonawinta. I also refer to our conversation and email correspondence of 10th September.

Cobar Consolidated Resources Limited ("CCR") would like to request a number of changes to the proposed additional conditions, as follows;

1. CCR requests that proposed condition L7.5 be amended to allow blasting operations to be carried out during daylight hours, seven (7) days per week. CCR suggests that this amendment is practicable due to the remote location of the Wonawinta Mine (120km south of Cobar) and the fact that no neighbours will be affected by blasting operations (the nearest neighbour – not often in residence - is 1.75km away); and

2. CCR requests that proposed condition L7.7 be amended to allow multiple blasts to take place on each day on which blasting is permitted. CCR suggests that this amendment is practicable for the reasons outlined above, as well as due to the fact that the Wonawinta Mine is a multiple pit operation. Ie It is feasible that CCR might wish to conduct a blast in each of the pits, on the same day.

I would be most grateful if you could consider these requested amendments at your earliest convenience.

Please do not hesitate to contact me if you have any queries.

Kind Regards,

Stephanie Reeves
Legal Counsel
Cobar Consolidated Resources Ltd

6 August 2012

- 9 AUG 2012

Cobar Consolidated Resources

Mr Garry Ryman
Director of Planning and Environmental Services
Cobar Shire Council
P.O. Box 223
Cobar
NSW 2835

Dear Garry,

Thank you for your email of 2nd August attaching a query from the EPA in respect of CCR's request that Development Consent 2010/LD-00074 REV01 be modified to allow blasting to take place at the Wonawinta Silver Project.

I have been in touch with Site personnel and confirm that the statement made in CCR's initial submission (as extracted below) is correct, ie that the maximum MIC to be used on site is 40kg. The 6.9 kg was an estimated figure assuming soft ground conditions.

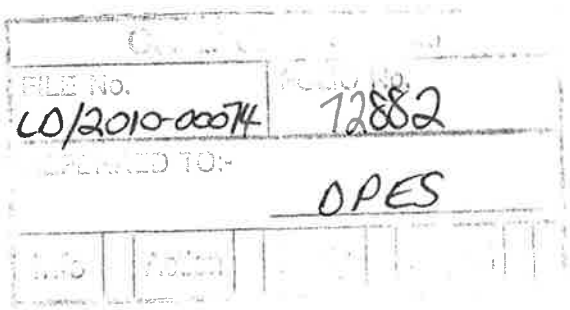
"Ground Vibration
The recommended maximum level for ground vibration is 5mm/sec (peak particle velocity PPV). Figure 4 below shows a predicted figure of less than 1 at the proposed measurement point 500 metres from the blast initiation site using 6.90 kg of charge per hole. The corresponding figure using 40 kg as an instantaneous maximum charge is 4.59 mm/sec at 500 metres from the blast site. Using the two maximum indicators as a constraint the maximum instantaneous charge to be used on site is 40 kg. This maximum instantaneous charge figure will satisfy the recommended limits in terms of blast vibration and overpressure. At this stage the estimated charge requirement for short term blasting is estimated to be 6.9 kg per hole."

I trust that confirmation of this matter satisfies the EPA's requirements. Please do not hesitate to contact me on 03 98698200 if you require any further information.

Kind Regards

Yours sincerely,

Stephanie Reeves
Legal Counsel
Cobar Consolidated Resources Ltd



APPLICATION FOR MODIFICATION OF CONSENT

Section 96 EPA Act / Clause 115 EPA Regulation 2000

TO:	Cobar Shire Council 36 Linsley Street PO Box 223 **COBAR NSW 2835**	**OFFICE USE ONLY:**	
From: CCR Limited		DA Mod Fee:	
		CC Mod Fee:	
		Receipt Number:	
		Date:	

Application is made for a Section 96 EPA Act / Clause 115 EPA Regulation 2000, in relation to the whole of the building identified below.

Name/s of Applicant/s: CCR Ltd

Postal Address: P.O. Box 7693

Suburb/Town: St Kilda Road Vic.

Postcode: 8004

Contact Details: Stephanie Reeves 03 9869 8200

Description of Consent

DA Number.: _____ Date of Consent: Refer Attached Documents Fee

C.C Number: _____ Date of Certificate: Date is of Application

Description of Approved Development: _____

Land: _____ Lot: _____ DP: _____ House No: _____

Street Name: _____

Suburb/Town: _____

Postcode: _____

Particulars

Details of Proposed Modification: _____

Reasons Why Council Should Modify The Consent

Attachments

I. 2 x sets of modified development plans: yes no

II. 2 x sets of modified construction plans: yes n/a no

Applicants Signature S Reeves Date: 26/6/12

Owners consent required if the owner is not the applicant

Wonawinta Silver Project

Application for modification of development consent pursuant to section 96(2) of the Environmental Planning and Assessment Act 1979

(Clauses referenced below are those contained in clause 115 of the Environmental Planning and Assessment Regulation 2000 which outline application requirements)

115(1)(a) the name and address of the applicant

Cobar Consolidated Resources Ltd
P.O. Box 7693
St Kilda Road
Victoria 8004

Ph 03 9869 8200

115(1)(b) a description of the development to be carried out under the consent

Development Consent 2010/LD-00074 approved the Wonawinta Silver Project.

A Modification to Development Consent 2010/LD-00074 was approved by the Joint Regional Planning Panel on 29 February 2012. This essentially approved a re-aligned access road to the Mine Site, a change in the water source for the Project (the Wirlong borefield) and a change in the timing for the completion of the shire road upgrade already committed to by CCR.

This current application for modification of development consent is to approve the use of blasting at the Wonawinta Mine Site. Given this application outlines an additional means by which the ore is to be extracted from the Wonawinta Mine Site rather than a change to the development per se, the entire Project already approved by the abovementioned development consent (and subsequent modification) is not re-described.

115(1)(c) the address, and formal particulars of title, of the land on which the development is to be carried out

Lot 3632 DP766014; WLL 6238, "Manuka"
Lot 863 DP761939; WLL 2810, "The Bluff"
Lot 864 DP 761939; WLL 2811, "Buckambool"
Lot 5074 DP45018; WLL 12903, "Belford"
Lot 4225 DP766852; WLL 9260, "Lachlan Downs"
Lot 3633 DP 766015 WLL 6239 "Wirlong"
Part of Bedooba Road (SR13B) – Road Reserve
Part of Lerida Road (SR13A) – Road Reserve

115(1)(d) a description of the proposed modification to the development consent

CCR now wishes to obtain approval for the use of blasting at the Wonawinta Mine Site. Blasting was not envisaged to be necessary when the Environmental Impact Statement (December 2010)(as amended by supplementary documentation) was prepared by RW Corkery & Co Pty Limited.

However since that time some small pockets of hard limestone have been encountered in the pit, necessitating removal via blasting rather than the current scraping method of extraction.

115(1)(e) a statement that indicates either;
(i) that the modification is merely intended to correct a minor error, misdescription or miscalculation, or
(ii) that the modification is intended to have some other effect, as specified in the statement.

CCR now wishes to obtain approval for the use of blasting methods of extraction at the Wonawinta Mine Site.

Blasting was not envisaged to be necessary when the Environmental Impact Statement (December 2010)(as amended by supplementary documentation) was prepared by RW Corkery & Co Pty Limited. However since that time some small pockets of hard limestone have been encountered in the pit, necessitating removal via blasting rather than the current scraping method of extraction.

115(1)(f) a description of the expected impacts of the modification

The Environment Protection Authority has outlined in the attached letter (Appendix A), what information it requires in support of the proposal. Ie A noise and vibration (blasting) impact assessment. The information requested by the EPA is included in Appendix B. Also attached as Appendix C is a Blast Management Plan to be implemented upon Site.

115(1)(g) an undertaking to the effect that the development (as to be modified) will remain substantially the same as the development that was originally approved.

The development for which consent modification is sought, remains substantially the same development as the development for which the consent was originally granted. An additional method of extracting ore from the ground is not considered to be a substantial variation to the development.

Appendix A.

NSW EPA

Our reference: LIC11/10-04, DOC12/23227
Contact: Brad Tanswell 02 6883 5330

The Director
Cobar Consolidated Resources Limited
Level 4, 448
St Kilda Road
MELBOURNE VIC 3004

Attention: Stephanie Reeves

CC: Department of Resources and Energy
Cobar Shire Council

Dear Mr Shard,

Thank you for the email received from Stephanie Reeves (Cobar Consolidated Resources-CCR) on 28 May 2012 requesting advice on the information to be submitted to Cobar Shire Council to accompany an application to modify the existing consent for the Wonawinta Mine (the premises) to allow blasting to be undertaken onsite.

The EPA has considered the proposed blasting at the premises and has determined that the proposal is Integrated Development (IDA) for the purposes of the EPA as CCR will require a variation to the Environment Protection Licence (EPL) for the premises to allow blasting to be undertaken onsite. The EPA cannot vary an EPL without consent being granted from the consent authority (Cobar Shire Council).

Should the applicant obtain development consent, the applicant will need to make a separate application to the EPA to obtain the licence variation.

Regarding information required to be submitted in support of the proposal, the development application must be supported by a noise and vibration (blasting) impact assessment prepared in accordance with the EPA's standard Environmental Assessment requirements for noise and vibration provided in Attachment A. This should specifically address the information requirements outlined below.

Blast impacts should be demonstrated to be capable of complying with the guidelines contained in *Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration* (ANZEC, 1990). http://www.environment.nsw.gov.au/noise/blasting.htm

PO Box 2111 Dubbo NSW 2830
Level 1 48-52 Wingewarra Street Dubbo NSW
Tel: (02) 6883 5312 Fax: (02) 6884 8675
ABN 30 841 387 271
www.environement.nsw.gov.au

The following details of the blast design should be included in the noise and vibration (blasting) impact assessment:

- bench height, burden spacing, spacing burden ratio;
- blast hole diameter, inclination and spacing; and
- type of explosive, maximum instantaneous charge, initiation, blast block size, blast frequency.

The assessment should:

- Identify all sensitive receptors that may be impacted by overpressure and ground vibration; and
- Identify the Maximum Instantaneous Charge used to ensure criteria for overpressure and ground vibration identified in the guideline mentioned above will not be exceeded via use of industry standard equations for estimation.

The noise and vibration (blasting) impact assessment should include modelling in accordance with the guidance outlined above to demonstrate the proposed blasting will comply with the guidelines mentioned. The EPA does not consider trial blasting necessary or appropriate in terms of informing the noise and vibration (blasting) impact assessment as modelling should provide sufficient information for the purposes of the assessment and trial blasting is not covered by existing consent/s.

Should you have any enquiries regarding this matter, please contact myself at the Dubbo Office of the EPA by telephoning (02) 6883 5367.

Yours sincerely

07/06/12

BRADLEY TANSWELL
Acting Head Pesticides, Operations and Planning
Environment Protection Authority

ATTACHMENT 1- EPA's EA Requirements

Noise and vibration

1. In relation to noise, the following matters should be addressed (where relevant) as part of the Environmental Assessment.

General

2. Construction noise associated with the proposed development should be assessed using the *Interim Construction Noise Guideline* (DECC, 2009). http://www.environment.nsw.gov.au/noise/constructnoise.htm

3. Vibration from all activities (including construction and operation) to be undertaken on the premises should be assessed using the guidelines contained in the *Assessing Vibration: a technical guideline* (DEC, 2006). http://www.environment.nsw.gov.au/noise/vibrationguide.htm

4. If blasting is required for any reasons during the construction or operational stage of the proposed development, blast impacts should be demonstrated to be capable of complying with the guidelines contained in *Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration* (ANZEC, 1990). http://www.environment.nsw.gov.au/noise/blasting.htm

Industry

5. Operational noise from all industrial activities (including private haul roads and private railway lines) to be undertaken on the premises should be assessed using the guidelines contained in the *NSW Industrial Noise Policy* (EPA, 2000) and *Industrial Noise Policy Application Notes*. http://www.environment.nsw.gov.au/noise/industrial.htm

Appendix B

Wonawinta Blast Design

Parameters for blast design at Wonawinta Silver Mine are as follows:

- Standard blast hole diameter will be 79mm.
- Standard bench height will be 5 metres.
- Burden is calculated as 30 times the hole diameter in metres (2.40m).
- Spacing is calculated at 1.15 times the burden distance, to give an equilateral pattern (2.8m).
- The charge length is 20 times the hole diameter (1.60 m).
- The charge volume per hole is 7.84 litres. Using blown ANFO at a density of 0.95 the quantity of explosive used per charge is 7.45kg.

The resulting powder factor is 0.22 kg per cubic metre. Table 1 below shows the assumptions used to determine the preliminary blast design. A powder factor of this magnitude has been deemed reasonable given the high probability that the rock type to be blasted will not be "hard" and the ground conditions have been assumed to be average.

Table 1: Blast Design Assumptions

Blasting Assumptions	
Hole diameter (mm)	76
Bench Height (m)	5
Burden (m)	2.30
Spacing (m)	2.70
Charge length	1.60
Area	4.54
Volume	7.26
Charge weight @ 0.95 Density	6.90
Powder factor per (kg/m^3)	0.22

Blast holes will be vertical with no inclination. ANFO has been assumed to be the type of explosive used for blasting as the mining conditions to date have been dry. If wet conditions are encountered at a later date an emulsion type product would be used. The estimated maximum instantaneous charge to be used is 6.90 kg. Blast block size will vary over time, the bulk of the deposit is expected to be "free dig" however there are areas that contain harder rock types that require blasting. It is estimated that the maximum blast block size for any given shot will be no greater than 40,000 bank cubic metres. Initiation will be by delay non electric detonators with blast frequency also varying over time; however the operation will not require blasting more than once per day. Monitoring of blast vibration and blasting overpressure will be undertaken by an appropriate blasting contractor with the records stored in accordance with the guidelines.

Predictive Blast Modelling

To determine the predicted blasting overpressure and ground vibrations levels two equations were used. The equations are shown in figure 1. Two Q values were used in the calculations, the first Q value was the value determined from the blasting assumptions which is the maximum instantaneous

charge at 6.90 kilograms. The second Q value is the maximum charge that could potentially be used in the blasting process without exceeding the thresholds for overpressure and vibration. In terms of impacts on local surrounds, there are no properties or infrastructure close to the mining operations. The nearest property homestead "Wirlong" (unoccupied for most of the year) is located 1.75km from the Boundary Pit and 2.4km from the Manuka Pit. The nearest structure to the Manuka pit is the processing plant which is approximately 500 metres from the pit edge. A plan showing the location is shown in figure 2. It has been assumed that monitoring would be recorded at this point or in this general vicinity. A proposed exclusion zone of 500 metres would be enforced while blasting activities are being undertaken.

6.5 BLASTING

The following sections provide standard equations for predicting blast overpressure and ground vibration levels, sourced from the United States Bureau of Mines

6.5.1 Blast Overpressure

Unweighted air blast overpressure levels (OP) are predicted from **Equation 2** below.

$$OP = 165 - 24(\log_{10}(D) - 0.3\log_{10}(Q)), \quad dB \qquad (2)$$

where D is distance from the blast to the assessment point (m) and
Q is the weight of explosive per delay (kg).

Analysis of blast data from several coal mine in the Hunter Valley has shown Equation 1 to underestimate overpressure levels by up to 3 dB for small blasts (MIC 100-400kg) and overestimate by 1 dB for larger blasts (MIC > 400kg). Given the small MIC values likely to be utilised a 3 dB correction has been applied to Equation 1

6.5.2 Blast Vibration

The basic equations for calculation of peak particle vibration (PPV) levels from blasting are as follows.

$$PPV = 1140\left(\frac{D}{Q^{0.5}}\right)^{-1.6}, \text{ mm/s (for average ground type)} \qquad (3)$$

$$PPV = 500\left(\frac{D}{Q^{0.5}}\right)^{-1.6}, \text{ mm/s (for hard rock)} \qquad (4)$$

where D and Q are defined as in Equation 2. The site geology indicates particularly hard ground and Equation 4 will be applied.

Figure 1: Relevant equations used to determine blasting overpressure and vibration

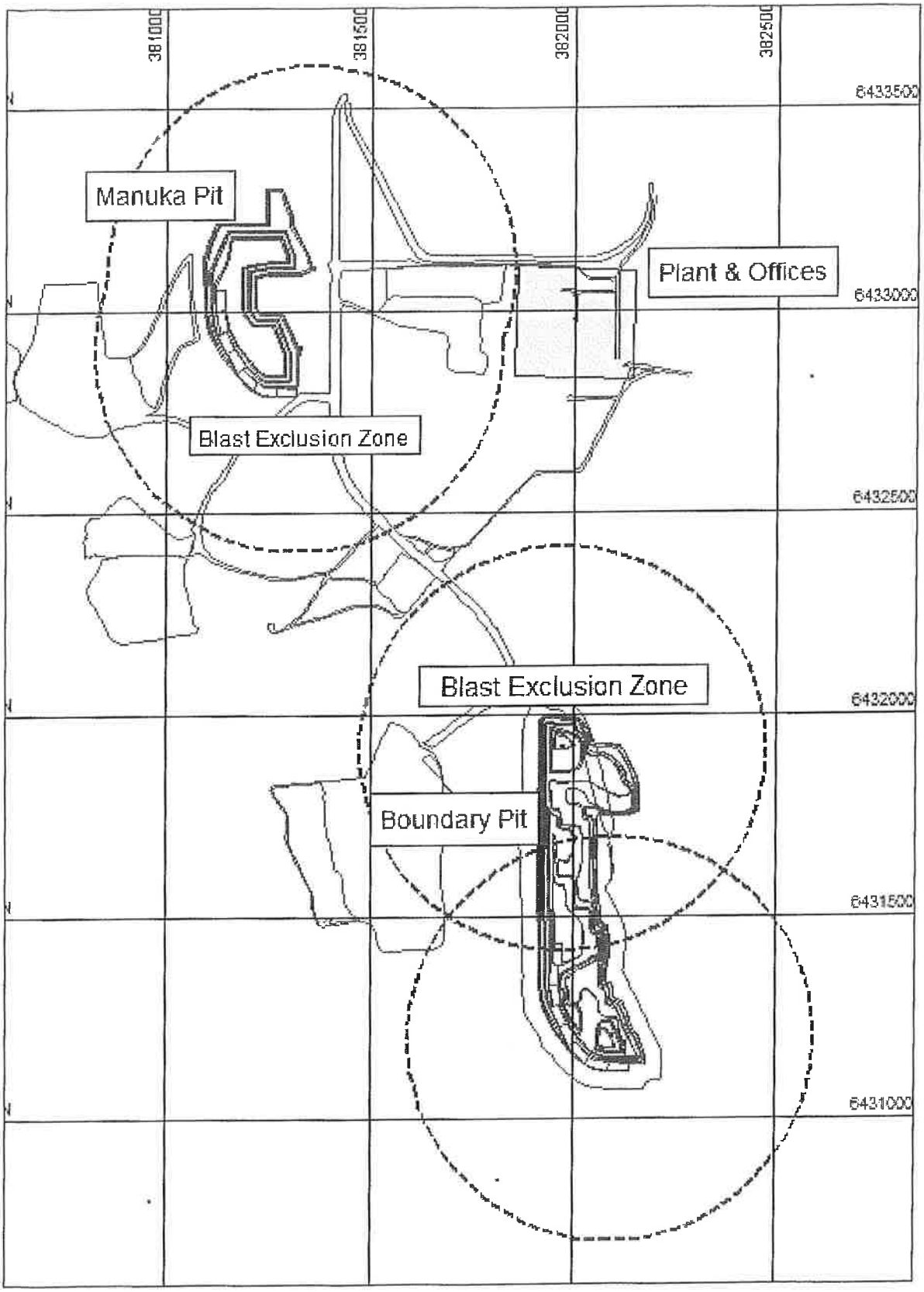


Figure 2: Plan showing proposed blast exclusion zones and location of plant and office infrastructure.

Blast Overpressure

Figure 3 below shows the results of the predictive modelling assuming measuring distance is 500 metres from the blast initiation point and using charge weights of 6.90 kg and 100 kg as the maximum instantaneous charge. The over pressure reading using 6.90 kg at 500 metres away is 105 dB, which is comfortably within the gazetted maximum in the guideline. If the maximum charge per hole was to be 100 kg, the reading at 500 metres from the blast site would be estimated to be 114.6 dB. This would be the maximum charge possible to obtain a reading of less than 115 dB at 500 metres from the blast site.

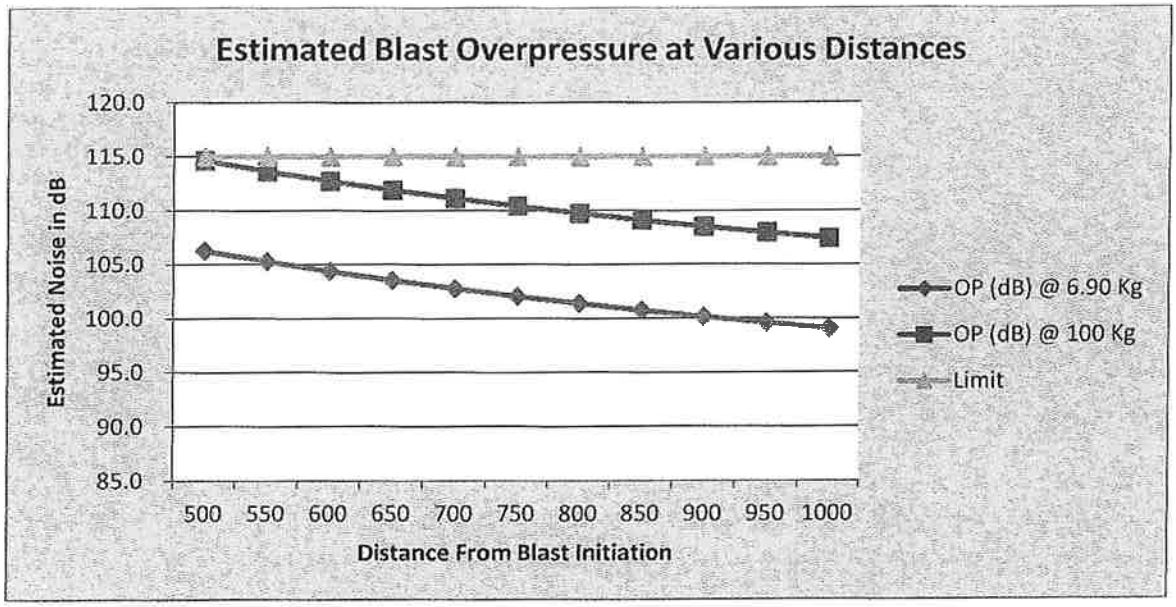


Figure 3: Chart showing estimated overpressure values.

Ground Vibration

The recommended maximum level for ground vibration is 5mm/sec (peak particle velocity PPV). Figure 4 below shows a predicted figure of less than 1 at the proposed measurement point 500 metres from the blast initiation site using 6.90 kg of charge per hole. The corresponding figure using 40 kg as an instantaneous maximum charge is 4.59 mm/sec at 500 metres from the blast site. Using the two maximum indicators as a constraint the maximum instantaneous charge to be used on site is 40 kg. This maximum instantaneous charge figure will satisfy the recommended limits in terms of blast vibration and overpressure. At this stage the estimated charge requirement for short term blasting is estimated to be 6.9 kg per hole.

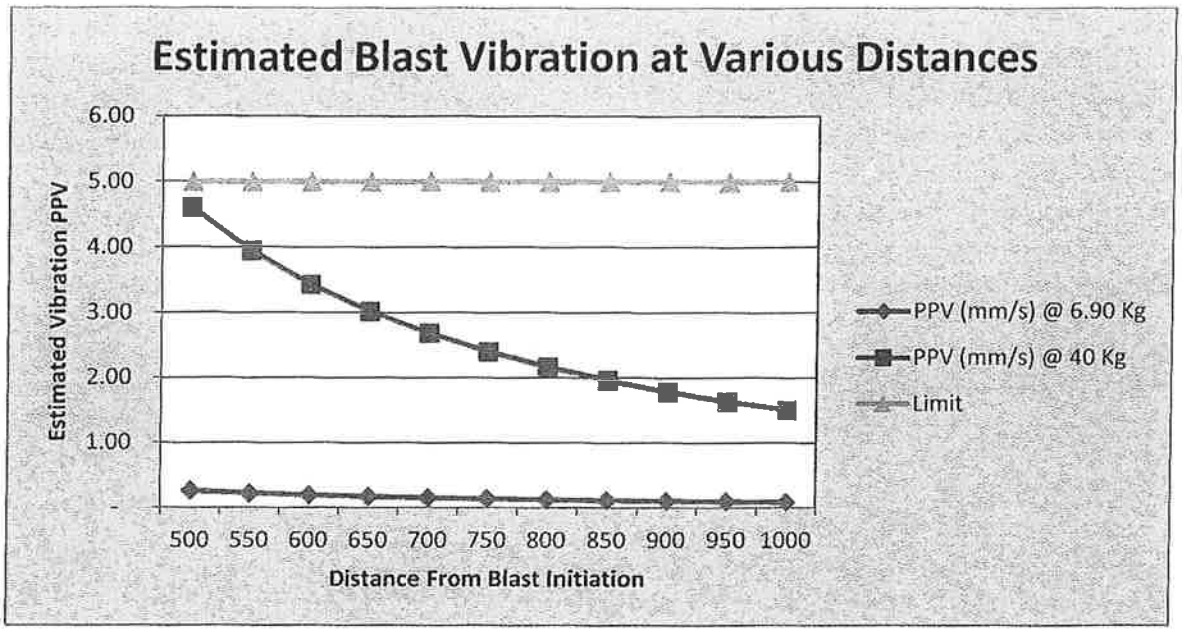


Figure 4: Chart showing estimated ground vibration values.

Total Contract Solutions

LUCAS

Blast Management Plan
CCR Wonawinta Mine Site

Submission date:	19/06/2012
Contract number:	2011-SC-01
Principal:	Cobar Consolidated Resources
Version:	Version 2
Created By:	Ben Oliver
Approved By:	Wade Matthews

Contents

Scope of Works

Undertake production drilling and blasting to ensure that the broken ore stocks at any time are sufficient to meet CCR's production requirements as contained in the current Production Schedule. Secondary blasting of oversize and contour blasting may be required periodically.

All blasting operations shall be executed by competent persons in accordance with the Lucas Safe Work Methods and the requirements of the Blast Management Plan

Definitions

Stemming	Backfill on top of explosive column to contain explosive energy
Burden	Distance between rows or distance from front row to free face
Spacing	Distance between blast holes suited in the same row of holes
MMU	Mobile Manufacturing Unit (Bulk Explosives Truck)
IE / HE	Initiating Explosives / High Explosives (Detonators and Boosters)
MIC	Maximum Instaneous Charge – Number of kg or holes firing at any instant during the blast

Legislative References, Codes of Practice and Standards

The following have been identified as specifically relevant to the activities to be undertaken.

- Work Health & Safety Act 2011
- Work Health & Safety Regulations 2011
- NSW Explosives Act 2003
- NSW Explosives Regulations 2005
- Australian Standard 2187 Storage & Use of Explosives
- Australian Explosives Code (AEC) (6th Edition)
- Dangerous Goods Transport Regulations 2008
- Dangerous Substances Regulations 2002

Procedural References

The following Lucas Policies and Procedures have been identified as specifically relevant to the activities to be undertaken.

- HSECOP066 – Blasting Operations Procedure
- HSECOP067 – Explosives Misfire Procedure
- HSECOP080 – Drilling Operations Procedure
- HSECF143 – Pre-Blast Checklist
- HSECF144 – Daily Drill & Blast Report
- HSECOP147 - Stock Control of Explosives Procedure
- HSECF232 - Blast Communication Notice
- HSECF145 – Misfire Recovery Form
- HSECF243 – Magazine Key Register
- HSECF244 – Drill & Blast Sign Off Sheet
- HSECF236 – Explosives Stock Held Register
- HSECF245 – Drill Log Sheet
- HSECF246 – Blast Charge Sheet
- HSECF250- Lost Drill Consumables Report
- HSECF251- Drill Preparation Checklist
- HSECF239 - Key Appointments and License Register
- Wonawinta HSEC Management Plan
- Drill & Blast Global Risk Assessment
- MSDS Register for all associated Drill & Blast products

Blasting Details

Location: CCR Wonawinta Mine site

Date: Multiple - TBA

Time: Various

Prior to any blasting operations on the site, an investigation of the site and area to be blasted shall be carried out. A Global Risk Assessment shall be completed by a competent person in consultation with the affected work groups and attached to the Blast Management Plan.

Where conditions revealed during the blasting operations necessitate changes to the Blast Management Plan, The Risk Assessment and Safe Work Methods shall be reviewed to reflect any required changes and shall be completed in consultation with the affected work group.

The extent of planning for each blast shall be commensurate with the size, location, nature and complexity of the blasting operation to be undertaken.

Blast Design

Lucas Management and Mining Engineer/Shotfirers determine the blast design with all personnel involved in the process having access to the necessary documentation.

Determined by the objective, the blast design shall take into consideration the following factors; fragmentation, vibration, air blast, fumes, dust, noise and environmental controls, with the primary objective of minimising ore dilution to maximise the ore recovery.

Drill and Blast designs are to be completed in consultation with CCR, ensuring that the *HSECF244 - Drill and Blast Design Sign off Sheet* is completed and approved.

Within the blast design the following factors and explosive requirements are identified by determining or calculating the following;

- Physical Characteristics & Geography
- Powder factor
- Burden
- Spacing
- Hole diameter
- Subdrill
- Stemming
- Initiation system and delay sequence
- Type of explosives required
- Explosive loading / detonation sequence / effective charge mass per delay (MIC)
- Calculation of predicted ground vibrations.
- Hazards – previously drilled holes
  - Previous misfires
  - Adits
  - Previously lost drill consumables

Prior to commencement of blast design, CCR shall indicate the material to be blasted as either ore or waste and provide predicted ore/waste boundaries in the form of a Geological report. Lucas shall design, in consultation with CCR, each blast according to the material type by specification of the hole diameter, burden, spacing, depth, inclination, number of holes, type of explosive, amount of explosive, powder factor, distribution of explosive and delay sequence required to meet the following blast design criteria:

- Firing Direction to be approved and signed off by CCR geology representative.
- Heave is to be kept uniform across the blast and limited to a maximum height of two (2) meters;

- Sufficient fragmentation will occur to ensure that ore and waste delineated on the blast block plans can be excavated separately and to the boundaries shown;
- Sufficient sub-drill is charged to ensure that the floor is cut within required tolerance;
- Minimal damage is caused to the final pit walls.

Blast patterns will be designed for a nominal bench height as described in the Schedule of Rates and will utilise pattern dimensions as specified in the schedule of rates. Other patterns outside of the SOR may be used with the prior agreement of the Client

Drill patterns will be refined over time to deliver the optimal drill and blast configurations for each pit and associated rock type.

The process for experimenting with various pattern designs will be agreed between OST and the Lucas representatives including managing allocation of costs, risks and potential upside.

Key criteria for blast design include:

- Sufficient fragmentation to ensure adequate delineation of ore and waste boundaries and productive excavation rates;
- Sufficient sub-drill to ensure the final bench levels are achievable within ± 250mm of design RL by the excavator;
- Minimal damage is caused to final pit walls; and
- Vertical and/or horizontal muck pile movements are limited in order to minimise dilution.

Lucas shall ensure that, in addition to the blast design criteria, blasting operations take into account and achieve:

- Sufficient fragmentation to allow the excavation of the material to the design depth with Lucas's plant at an excavation rate sufficient to meet the Production Schedule;
- Sufficient fragmentation to allow Lucas to achieve CCR's ore processing requirements;
- Sufficient sub-drill;
- Appropriate selection of explosives to accommodate the presence of water in blast holes;
- 1% < oversize ore which requires secondary breaking;
- No damage to any Contractor's plant or CCR's plant from vibration, air blast or fly rock;
- Ambient meteorological conditions and blast timing to minimize any disturbance to neighbouring areas;
- No sub drill of blast holes directly above final berms or final bench crests, so as to minimize any damage to the final berms or final bench crests;
- The achievement of the design toe position in priority to the maintenance of the design crest position; and
- Any other criteria directed by CCR from time to time.

If Lucas and CCR cannot agree on the blast pattern, powder factor, etc, the direction of CCR shall be final.

The procedure for the conduct of, and payment, for each blast is as follows:

- For each blast the minimum effective powder factor should be used;
- Lucas must nominate the powder factor it believes is the minimum effective powder factor;
- If CCR disagrees with the powder factor nominated by Lucas they may direct a different powder factor to be used;
- If a CCR nominated powder factor is used, and it is less than the powder factor nominated by Lucas, and the blast outcome is deficient, Lucas is entitled to claim any additional costs it incurs because of the deficient blast;
- In all other circumstances, Lucas takes the risk of the outcome of blast, and it is not entitled to claim any amounts for additional costs it incurs because a blast is deficient.
- Sub-drilling in amphibolites and other soft material shall be minimized; such areas will be advised by CCR.

Prior to the commencement of drilling for any blast, the blast pattern must be approved and agreed by CCR.

In general, Lucas will determine the drill and blast design and retain mining operational risk resulting from the performance of the drill and blast operations. Where the Principal directs an alternative drill and blast design, CCR will accept all productivity risks resulting from the performance of the drill and blast operations.

Buffer Trim Blasts

In some of the pits, buffer/trim blasting techniques may be required near the batters with the aim of reducing the impact of blasting on pit walls. This may include, but not be limited to, reduced hole spacing and/or diameters, reduced powder factors and/or charge per delay, 'narrow' blast areas next to walls and free face firing.

If trim/buffer blasts are required, Lucas and CCR will agree on the rate as a variation to the standard blast rates outlined in Schedule A2.7.1 and A2.7.2.

CCR must have approved a trim blast design before the designed trim blast pattern is drilled or blasted. Prior to any drilling for buffer/trim blasting, the geology of the final wall and stand-off distances must be discussed with CCR and CCR must have approved the proposed buffer trim blasting.

CCR and Lucas shall endeavour to design trim blasts to not only minimize the potential for damage to final pit walls but to minimize the impact on the mining operation.

Physical Characteristics & Geology

The physical characteristics and potential hazards, which may be associated with the characteristics of the material to be blasted shall be identified and assessed.
This will allow Lucas to determine any inconsistencies in relation to the material being blasted which may prevent an effective blast from being carried out.
Information will be gained from client exploration samples, geologists, drill operators, surveys and reports along with the blast histories of previous blasts on the site.

Upon direction from CCR, Lucas will drill monitoring holes within a blast pattern to the same diameter as the blast pattern for the purpose of blast movement monitoring. Lucas shall cut PVC pipe or poly pipe casing into required lengths relative to bench height.
Lucas shall insert the casing or pipe segments into the holes and subsequently backfill the holes with drill cuttings. CCR will nominate the location of these holes. The holes are to be picked up by survey prior to firing of the blast and picked up by survey following the blast to determine to the movement of ore zones.

Manufacture of Explosives

Lucas will manufacture explosives on site in readiness for blasting. Processes must have been risk assessed and operations carried out in accordance with the Lucas Safe Work Method Statements for Drilling, Loading and Blasting operations.

Storage areas and mixing equipment shall be licensed in accordance with the requirements of the jurisdictions in which Lucas conducts blasting operations. Storage and mixing sites shall be designated and subjected to the following precautions;

- Surrounding areas kept clean and free of all combustible materials
- Smoking is not permitted in close proximity of any storage or mixing area and signage indicating no smoking areas shall be in place

- Operations constituting a fire hazard such as welding, grinding, cutting or the like shall not be conducted in the proximity of the storage or mixing areas
- Evacuation plans shall be established and practiced to enable quick evacuation of the site and immediate surrounds to a safe place in the event of a fire.

The Mobile manufacturing unit shall comply at all times with the requirements set forth in the Australian Standard *AS 2187.2 – 2006 Explosives – Storage and Use,* Part 2: Use of Explosives sections 3.4.1 and 3.4.2

A colouring agent, soluble in the fuel oil shall be used by Lucas blasting operations as a guide to ensure that the fuel oil is uniformly and thoroughly blended with the ammonium nitrate.
This will allow for ready identification of mixed explosive product from unmixed ingredients.

Structures / Services that have influenced Blast Design

Due to the equipment used and activities undertaken during blasting services may be affected by the blast or in themselves affect the blast. Prior to all blasting operations, Lucas shall determine the services that may be affected or affect the blast and adjust the blast design accordingly. Services that are identified, either above, at or below the surface may include

- Electrical systems
- Water
- Gas
- Communications
- Effluent Systems

Blasting operations close to structures may also affect the integrity of these structures and have negative impact on local communities and stakeholders. Proximity of structures shall be accounted for in the blast designs created by Lucas.

Reports / Drawings & Records Consulted

Reports, Drawings and Records are required to be consulted prior to commencing any blast design. CCR are to provide Lucas all relevant pit designs, topography, blast masters and parameters to be used in the blast design process.

Previously drilled Production holes or Exploration holes that have been surveyed are to be included in the information supplied.

Following the completion of the blast design in accordance with *HSECF244 - Drill and Blast Design Sign off Sheet*, designs are to be provided for checking and approval by relevant CCR personnel.

The approved drill pattern, charge sheet and initiation design will be provided to the Lucas Site Manager and placed in the Blast Approvals folder authorising its implementation in the pit.

Drill Pattern / Hole Depth

Accurate and clear drilling plans and marking of intended blastholes is crucial to the success of Lucas blasting operations.

Adequate survey marks shall be provided for each drill pattern. This will include (where relevant) ore/waste boundaries, final wall toe/crest positions, positions of back row in previous shot and natural surface – fill contact lines.
Infill holes shall be manually set out by the blast crew and survey assistants using measuring tapes. Any offset or non-standard burden and spacing holes are to be set out by a surveyor using GPS.

Following drill pattern set out, the drill collar positions will be overlayed with the collar positions from the bench immediately above to identify any holes that may potentially be drilled into the hole butts from the previous bench.

Where the potential for this to occur is identified, the collar positions will be relocated to ensure the risk is eliminated. The surveyors shall be responsible for verification.

Drill operators will ensure holes are drilled to the correct design collar position, depth and angle. Prior to the drill leaving the pattern the driller is to dip all holes to ensure correct design depth. A Daily Quality Sheet / Driller's Log are to be completed each day and supplied to the client on request.

Should difficult conditions be encountered during drilling or redrilling operations that preclude the drilling of the hole in the specified position Lucas shall immediately notify CCR.

Detonation Sequence / Charge Mass per Delay (MIC) / Powder Factor

Blasting shall be 'hole' by 'hole' or as approved by CCR.

All production ore shots shall be fired in an 'along the strike' configuration.

No centre lift shots will be permitted unless specific approval is received from CCR.

Blasts on cutback benches will be carried out to ensure that blasted material is contained on the bench, with no spillage to benches below.

Type & Quantity of Explosives Used

The materials used in the blasting operations on site shall be in accordance with the *Australian Standard 2187.2* – 2006 clause 3.5.2 for ANFO. Ingredients used shall be stored and transported so as to prevent accidental mixing, be free of foreign materials and shall be mixed as close as possible to the delivery of the explosive.

Mixing and delivery of ANFO shall only be conducted by competent, trained and approved personnel, using only porous prilled ammonium nitrate and automotive diesel fuel treated with a suitable dye. Any additional materials required shall be risk assessed and shall only be used in accordance with manufacturer's specifications.

Method of Initiation and Type of Firing Equipment

Selection of initiation method and firing equipment to be utilised is made following a risk assessment including the following information;

- Safety and environmental issues
- Compatibility of initiation system with the charge
- Environmental Issues
- Performance & Reliability of the initiation system
- Economic considerations

Blasting will be carried out at a time determined by the Lucas (in consultation with CCR) that allows minimum interruption to production operations.

Lucas will provide a minimum of 24 hours notice to CCR and any other relevant stakeholders to minimise operational disruptions. Where 24 hours notice is provided, blasting operations will take priority.

Permits and Licenses Required

Permits and Licenses required and held for the project shall be as follows;

- Shotfirers License
- Permit to purchase explosives
- Permit to receive explosives
- License to manufacture explosives
- Explosives storage license

Key Appointments & Responsibilities

Responsible Project Personnel

Name	Title	Phone
TBA	TBA	TBA

*** - nominated contacts to be contacted immediately in the event of an incident**

Security Manager / Delegate

Name	Title	Phone
TBA	TBA	TBA

Shot Firers

Name	Skill / Competency /	Licence #	Expires
TBA	TBA	TBA	TBA

All Lucas employees are required to ensure that they only perform work that they are trained and competent to undertake at all times.

Authorised Personnel to Order / Receive Explosives/AN

Name	Explosives IE & HE		Ammonium Nitrate	
	Order	Receive	Order	Receive
TBA	TBA	TBA	TBA	TBA

Risk Management

All users of explosives on the Wonawinta project shall be constantly vigilant to the dangers associated with their environment and with the use of explosives.
All Lucas blasting activities shall be risk assessed by a competent person.
The risk assessment shall identify all foreseeable potential hazards and provide for appropriate controls to be taken to eliminate or reduce the likelihood and mitigate the severity of any effects of such hazards as described in the Global Risk Assessment associated to Blasting activities.

The primary risks identified are:

- Flyrock
- Misfire
- Incorrect loading or stemming (blocked or bridged holes);
- Blast preparation and access
- Movement of Explosives into and out of the site
- Blast area control and clearance
- Proximity of plant, equipment and infrastructure
- Proximity of personnel
- Interruption to Lucas operations
- Security of explosive while onsite

Risk Assessment

The *Task Risk Assessment Form – HSECF004* shall be used to document the risk assessment and as per Lucas *Risk Assessment Procedure - HSECOP003.*
Where residual risks are not reduced to a sufficient level then Lucas management shall be involved in the process and review the risk controls proposed to ensure the risks to health, safety and environment are reduced to a level as low as reasonably practical.

Consultation

Consultation between Management and employees occurs through different mediums within the organisation and take the form of individual consultation with employees on the worksites or through the following formalised processes;

- Daily Pre Start Meetings
- Weekly Toolbox Meetings
- HSEC Committee Meetings

Other consultation processes may also be required to ensure all employees have an opportunity to contribute and participate in site safety and health issues as appropriate.
On site blasting times, hazards, risks and prescribed controls shall be communicated to the workgroups through a Blast Notification Notice, the Blast Notification Board and via the abovementioned consultative mechanisms.

Personal Protective Equipment (PPE)

The minimum standard of PPE required by Lucas is:

- Hard Hat, Safety Boots, Safety Glasses, Long sleeves and long trousers (hi-visibility), Gloves

Hearing Protection, Respiratory Protection, Goggles, Face Shields and other PPE may also be required subject to task requirements.

Hazardous Substances

A Hazardous Substance Register shall be maintained on the project site with copies of relevant Material Safety Data Sheets (MSDS) readily available within chemical or gas storage areas, at the Lucas HSEC Office, at fuel dispensing facilities, on board service vehicles and within Workshops.
Personnel required to work with, or handle hazardous substances shall be trained in the correct and safe manner to do so.

Risk Assessments shall be used in the training process for each chemical used by Lucas on site with copies of the MSDS given and made available to those employees for review.

In relation to blasting, MSDS for substances shall be located in the following locations;

- Site Office
- Chemical storage and dispensing areas
- On board vehicles on which chemicals or explosives are carried, mixed or dispensed
- Magazine and AN storage compounds

MSDS shall be supplied for each chemical and hazardous substance used on the project.

Lucas will provide Material Safety Data Sheets for all explosives and ancillary chemical items brought on site. These shall be provided to the client in package form and copies of the package located at locations as described above.

The following is a listing of the products that will be used in the blasting process. Any changes will be risk assessed and notification made to the client.

Name	UN Number	DG Class	Proper Shipping Name	Hazchem Code
Pentex Boosters (H & PPP Primers)	0042	1.1 Explosive	Boosters	E
Exel Detonators	0360	1.1 B	Detonator	E
Emulsion	0241	1.1 D Explosive	Explosive, Blasting, Type E	E
Gasser Solution	NA	NA	DWAG Gassing Companion Solution	NA
Nitroprill	1942	5.1 Oxidizing Agent	Ammonium Nitrate	1[Y]
Dye	3082	9	Environmentally Hazardous Substance, Liquid	NA
Firing Caps	NA	1.4	Primers, Cap Type	E
Connectaline	0349	1.4S	Articles, Explosive, N.O.S.	1(Y)E
Diesel	3082	9	Environmentally Hazardous Substance, Liquid	NA

Plant & Equipment

All personnel shall hold a current license or certificate of competency for the equipment that they are required to operate on the Project.

Copies of the current licenses and or certificates shall be made available to Lucas, with copies retained in the employees file prior to the commencement of duties.

All Lucas vehicles and plant shall be operated by licensed operators and or operators with the appropriate Certificate of Competency.

The specifications of Lucas mobile Plant and Equipment are located within the *Wonawinta Traffic Management Plan.*

All operators are required to conduct Pre Start checks of static and mobile plant including a walk around check and completing a Pre Start checklist at the commencement of each shift. When operating the vehicle or plant, operators are required to report immediately any warning lights / devices etc to supervisors and park the plant or vehicle in a safe place, then secure out of service tags to isolation and ignition points. It is a Lucas policy that Cabins, Windows and Mirrors must be kept clean at all times and at no time is smoking to be permitted in Plant or Vehicle cabins.

The MMU truck and Explosives transport vehicle shall comply at all times with the requirements set forth in *AS 2187.2 – 2006 Explosives – Storage and Use*, Part 2: Use of Explosives sections 3.4.1 and 3.4.2

Environmental, Weather and Provisions for Electrical Storms

An assessment of environmental, including weather, conditions will be made by Management and the shot firer prior to any loading activities.

If any weather or environmental condition is anticipated or exists that could potentially cause interruption to or cessation of loading, a risk assessment shall be undertaken and suitable risk control measures implemented.

Environmental hazards that potentially may impact Lucas blasting activities includes but is not limited to the following:

- Lightning
- Wind
- Rain
- Hail
- Flooding
- Cyclones
- Fire
- Dust Storms

Where lightning or other storms are predicted, loading and blasting will not be undertaken, however where required or in the event of an unexpected storm approaching then the following shall be adhered to:

- If loading can be completed and the shot fired before the storm comes within 10 kilometres of the blast site then the shot shall be fired
- If loading cannot be completed, all circuits shall be made safe, all unloaded explosives returned to the magazine and all persons and vehicles to withdraw a safe distance from the blast or any explosive as follows;
  - A minimum of 300 metres for plant
  - A minimum of 600 metres for personnel

  These distances are minimums and may be increased at the discretion of the Shotfirer where required.
- The site shall remain under close observation until the storm passes
- On the approach of a thunderstorm, all work in magazines shall cease, doors closed and locked and all personnel shall withdraw a safe distance of a minimum of 600 metres from the magazine until the storm passes.
  Access to the magazine shall be closed using a locked gate or similar at least 600 metres from the magazine/ AN Store. Any areas within the mine that are within 600m of the Magazine/ AN Store shall be cleared of all personnel, doors closed and locked.
- No person shall return to the blast site or magazine until the storm has passed and the shot firer and the Mine Manager (or delegate) deems it is safe to do so.
- Detailed plans showing the exclusion zones for the possible instance of a Lightning storm are to be included in the blast preparation notification and posted on the Blast Information Board.

Poor Visibility / Night Loading

Lucas shall plan accordingly to ensure that no loading shall be undertaken at night time or in conditions where natural light is inadequate for the tasks being performed.
Where required in exceptional circumstances additional risks and hazards shall be identified and controlled as per the hierarchy of controls.
Hazards that may be present when loading in poor light may include but are not limited to the following;

- Artificial light glare
- Shadow formation
- Visibility of blast hole locations
- Visibility of personnel
- Fatigue
- Identification of correct materials
- Accurate measurements

When required, shots are to be 'slept' overnight.
Product 'Sleep Times' as recommended by the supplier are to be maintained.
Blue flashing lights are to be utilised to delineate the area of the blast bench where a sleeping shot is located.
Information relating to the Sleeping of the blast is to be posted on the Blast Information Board and communicated to the alternate shift at change over.
Where the occurrence is not planned and the result of an anomaly, the Client is to be informed as early as possible after the decision is made.

All notifications are to be made in the same format as Blasting Notifications using HSEC form HSECF232 and attaching a site diagram indicating the exclusion zone around the affected area and the showing Blast Guard positions required in the event of an electrical storm.

Storage & Handling of Explosives

Storage locations for explosives shall comply with *Australian Standard AS 2187.1 – 1998 – Explosives – Storage, Transport and Use*.
Access to the magazine shall be controlled by Lucas Management and limited to essential personnel only.
The Security Risk Assessment and Security Plan address the security Plans concerning storage and use.

Explosives shall be stored and handled as per Lucas procedures attached as appendices to the Blast Management Plan and include:

- HSECOP066 – Blasting Operations Procedure
- HSECOP067 – Explosives Misfire Procedure
- HSECOP147 - Stock Control of Explosives Procedure
- HSECF236 – Explosive Stock held Register
- HSECF243 – Magazine Key Register

Incident Reporting

Pre-start and Toolbox meetings shall be used to ensure that employees are actively encouraged to report any potential hazards, near misses and potential incidents.
Lucas Step Back Program and Hazard Notification Cards will also be utilised as pre-emptive measures to highlight and eliminate observed hazards by employees and management on a continuing basis.

Incidents reported and investigated shall include but are not limited to:

- Incidents resulting in Injury
- Property Damage
- Environmental damage
- Potentially serious hazards
- Near misses
- Significant process failures
- Production Loss

Personnel witnessing incidents or near misses shall immediately report their occurrence to their line manager or supervisor.
Line managers or supervisors shall, where required, take all necessary precautions to make the area safe, deal with any casualties and isolate the site of the incident.

Incident reporting shall be undertaken as per the *HSECOP023 – Incident Reporting & Investigation Procedure* utilising the *HSECF025 – Incident Investigation Form* or other format as directed by CCR or the HSEC Manager.

Where there is the ability to access the QSE System, the incident may be entered directly into the System by a trained person.
HSECOP097 – Workplace Fatality Procedure outlines the requirements of Management and Supervisory personnel in the event of a workplace fatality incident including timelines, responsibilities, contact with the media, counselling and the like.

Incidents involving explosive shall be notified to the client and the relevant authorities immediately for all incidents including;

- Loss or theft of explosives
- Damage to property
- Injury to any personnel
- Damage to the environment

At all times throughout incident reporting and investigation the client shall be kept informed of all developments and findings.

Emergency Preparedness

Emergency procedures and risks shall be identified within the Project Risk Assessment as created at the commencement of works and reviewed periodically.
Blasting activities shall be included in the Lucas Project Risk Assessments and with all foreseeable emergency situations identified and controls specified to mitigate risk.
Possible emergency situations identified may include but are not limited to the following;

- Fire
- Transport Accident
- Unplanned Detonation
- Unauthorised Entry
- Deteriorated Explosives
- Personal Injury requiring medical treatment
- Natural Phenomena

All emergency equipment such as but not limited to the following where applicable to the site, shall be inspected and tested regularly to ensure that the specific critical systems remain ready to use and operable.÷

- Exit Signage
- Alarm Systems
- Fire Extinguishers and Suppression Systems
- Atmospheric Testing Equipment

Lucas shall ensure that all emergency equipment required for full emergency preparedness is ready for use at any time. This will include periodic audits and inspections of emergency equipment to ensure that fire extinguishers are within test date and first aid kits are stocked. All maintenance of equipment shall be in line with the applicable legislation, Australian Standards and codes of practice.

Exclusion Zone Management / Traffic Management

All Lucas blasting activities will have established exclusion zones prior to the firing of the shot to ensure all unauthorised persons are excluded to protect them from injury or harm. The exclusion zone shall be determined by the shot firer and other competent persons to ensure all fly and associated debris is contained within the zone with a minimum of 600 metres for personnel and 300 metres for plant (where applicable). These Exclusion zones will be identified on the Blast Notice board and guarded with Blast Guards prior to firing.

Shot firer and other authorised personnel such as observers may remain within the exclusion zone, at a predetermined protected location during firing.
All final approvals for persons to observe or monitor the shot from within the exclusion zone remains with the shot firer together with the Mine Manager (or delegate).

Exclusion zones may require consultation with project management staff, clients, land owners and other affected stakeholders to ensure effects on property, services, animals, transport networks and persons are minimised.

Lucas will utilise Blast Guards at all entry points to exclusion zones and has created instructions and radio phrases documented for consistency of blast guard activities.
These are attached to this plan as appendices and include *HSECG056 – Instructions for Blast Guards* and *HSECG061 – Radio Phrases for Blast Guards.*

Misfire Management

After the blast, the shot firer or other competent person shall inspect the blast area to determine whether any misfires have occurred. This inspection may occur immediately after the initiation of the blast, during the post blast inspection or during or after the removal or movement of blasted materials.

Exclusion zones shall be maintained when misfires are identified and all identified misfires shall be made safe.

All Misfires in blasting shall be identified and managed as per the Operational Procedure *HSECOP067 – Explosives Misfire Procedure.*
All misfires shall be reported and recorded on *HSECF145 – Misfire Recovery Form.*

Post Blast Assessment & Inspection

Inspections of the blast area shall be undertaken by the Shotfirer after the blast has been completed.
A minimum 5 minute wait is required after the blast before entry for the assessment shall be allowed and then only once the Shotfirer deems it safe to enter the Blast area.
The inspection shall be undertaken whilst the exclusion zone is still in place and determine when and if it is safe for routine operations to continue.
An assessment shall be undertaken prior to inspection to determine;

- Whether fume dispersal has occurred
- Whether dust dispersal / settlement has occurred
- Identification of apparently unstable ground
- Stability of buildings and structures that may have been impacted
- Safety and suitability of access and egress
- Aspects of the blast that may indicate that not all charges have been initiated

After the blast, the Shotfirer shall conduct the post blast inspection ensuring that exclusion zones and safety is maintained at all times until the all clear is given.
The shot firer may be assisted by competent persons to determine whether it is safe for operations to resume.
When it has been determined that the blast area is safe the 'all clear' shall be given allowing personnel back into the blast area.

Signoff of Blast Management Plan

Shotfirer /Assistant Signature		Date	
Name			

Shotfirer /Assistant Signature		Date	
Name			

Shotfirer /Assistant Signature		Date	
Name			

Shotfirer /Assistant Signature		Date	
Name			

Shotfirer /Assistant Signature		Date	
Name			

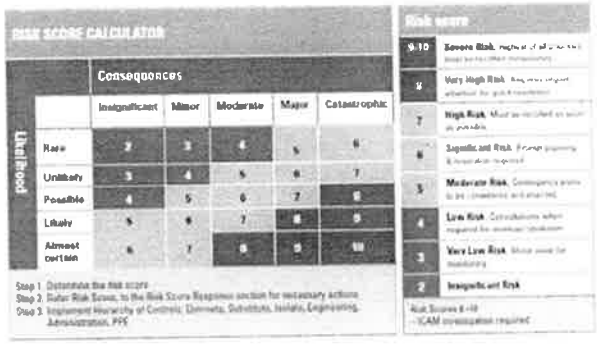
Security Manager Signature		Date	
Name			

Project Manager Signature		Date	
Name			

LUCAS	Risk Assessment Form			AS / NZS 4801 ISO 18001
Form Reference	Procedure Reference	Issue	Date	Revision Date
HSECF004	HSECOP003	Version 6	March 2011	March 2014

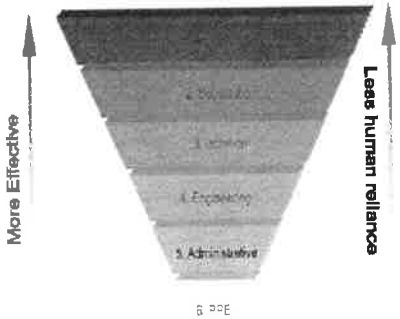
Risk Assessment Objective:	Identify all hazards, quantify risk and provide suitable controls in relation to Drill and Blast operations at Wonawinta Minesite

Site:	Wonawinta Minesite
Date:	19/6/2012
Revision:	One



The Risk Assessment must be signed below by each team member involved in the development of this document

Name:	Simon McGuinness	
Signature:		
Name:		
Signature:		



Authorisation of the Risk Assessment

By Authorising this Risk Assessment the signatories acknowledge that all controls Risks to Health, Safety and the Environment have been reduced to a level as low as reasonably practicable.

Hierarchy of Controls to be applied
(In order of application)
Elimination, Substitution, Isolation / Engineering, Administrative & Personal Protective Equipment

Supervisor / HSEC / Manager Name:	Simon McGuinness	**Supervisor / HSEC / Manager Sign:**	

Task	Associated Risks	Risk Rating	Risk Controls	Residual Risk
Blasting Operations close to infrastructure	Damage to Lucas/ Client assets	**8**	- Blast Management Plan created and specifies clearance zone for blasting operations. - Blasting location approved by Drill and Blast Supervisor in consultation with Client.	**4**
Pre Operational (Drilling and Blasting)	Mechanical Failure results in unsafe condition	**7**	- Daily Operator Inspection checklist to be completed prior to operating on each shift. - Schedule of routine maintenance followed. - Plant tagged out of service if unsafe condition exists.	**4**
	Incompetent operator causes unsafe condition		- Operator holds license for plant to be operated as required by legislation or Lucas policy. - Verification of competence prior to initial operation.	
	Drug or Alcohol consumption results in unsafe condition		- Mandatory Pre shift BAC analysis (project standard 0.00%) - Random, blanket and for cause drug screening undertaken on project	
	Operator fatigue results in unsafe condition		- Fatigue management strategies in place including education, toolbox talks, supervision, Operators empowered to take fatigue breaks if fatigue symptoms are recognised.	
Access to drill bench	Hazardous surface condition results in machine rollover or damage		- Before the pattern is marked out the bench is to be prepared by grading off loose large rocks. - Access track to the bench to be prepared to drill operator's satisfaction. - HSECF251 – *Drill Bench Preparation Checklist* to be completed and signed off by relevant parties.	

	Falling over crest of bench		- Crest of bench to be demarcated with windrow of minimum 600mm high. - Drilling area to be demarcated if necessary to prevent unauthorised access. - Entrance to protected drill bench to have signage in place requiring permission to be gained prior to access.	
Drilling operations	Plant damage	7	- Review operator's manual for operating procedures. - Only verified competent operators to operate drill rig.	5
	Injury to personnel	7	- Only verified competent operators to operate drill rig. - Mandatory PPE to be worn at all times.	5
	Exposure to hot weather conditions	7	- Additional PPE – Wide brim for hard hat - Active fluid replacement/Sqwinchers. - Take breaks if required.	5
	Excessive noise	7	- Earplugs/Earmuffs to be worn as required - Warning decals affixed to Drill Rig	4
	Dust	7	- Water accessible for dust suppression. - Dust mask to be worn as required. - Mandatory PPE to be worn at all times.	4
	Lightning	8	- Lay down mast, shutdown plant and seek shelter in cabin. - Contact supervisor and await further instructions. - Mandatory PPE to be worn at all times. - Refer *HSECOP123 - Lightning Protection Procedure*	5

Drilling operations	Hydraulic oil leak	8	- All hydraulic hoses to be inspected for condition during Plant Daily Prestart Inspections. - Damaged and worn hoses identified in Plant Daily Prestart Inspections to be recorded and reported immediately to supervisor. - Shutdown and isolate machine immediately in the case of a major leak. - All hoses to be secured by brackets. - Mandatory PPE to be worn at all times.	5
	Burst air hoses	7	- All air hoses to be inspected for - condition during Plant Daily Prestart - Inspections. - Damaged and worn hoses identified in Plant - Daily Prestart Inspections to be recorded and reported immediately to supervisor. - Shutdown and isolate machine immediately in the case of a major leak. - All hoses to be secured by brackets. - Mandatory PPE to be worn at all times.	4
	Vehicle / Plant Interaction	8	- All lights to be checked at prestart and in use during operation. - Maintain positive radio communication using plant identification numbers when within 50 metres of other vehicles. - Only verified competent operators to operate drill rig. - LV's to park in designated park – permission to enter work area required from driller before LV's enter Drill work area - Work area controlled by delineation and warning signage at entry points.	**5**

Drilling operations	Fire	7	- Water supply to be readily available. - Awareness of site specific UHF/Digital radio channels and emergency evacuation procedures.	**5**
	Uneven ground	8	- Risk assessment of scope of work and operating environment (JSEA) - Review operator's manual for operating procedures regarding operating plant on uneven ground. - Only verified competent operators to operate drill rig.	5
	Dangerous heights	8	- Risk assessment of scope of work and operating environment through Step Back. - Spotter required. - Only verified competent operators to operate drill rig.	6
	Difficult access	6	- Risk assessment of scope of work and operating environment through Step Back. - Spotter required. - Only verified competent operators to operate drill rig.	4
	Inadequate lighting	8	- All fitted lights on drill rig to work and be adjusted to provide best possible lighting - Portable lighting to be supplied and positioned to supply sufficient lighting for drilling and sampling operations - Lighting Towers to be protected using windrows and or Bollards / cones.	**5**
Prepare shot	Tripping over on uneven ground Falling over face	**6**	- Operators to prepare bench by removing boulders / loose material as requested (no face, flat bench) HSECF251 – *Drill Bench Preparation Checklist* to be completed and signed off.	**4**
Prepare shot	Working around open edges	**8**	- Windrows to be constructed around all open edges at least 600mm high - HSECF251 – *Drill Bench Preparation Checklist* to be completed and signed off	**4**

	Responsibilities and sign-off requirements may not be clearly defined.	**7**	- Lucas to provide clear guidance of induction requirements, vehicle requirements, and any special requirements for site access.	**4**
	Unauthorised access to explosives on board MMU or Shotfirers vehicle	**8**	- Vehicles to be left in secure locations at all times when containing explosives or SSAN. - Vehicles/ MMU to be emptied of Explosives/ AN if left overnight. MMU to be in secure compound if it contains SSAN overnight. - Access to explosives to be directly controlled by SSAN licensed personnel	**5**
	Multiple levels of undulating ground.	**7**	- Ensure access suitable for MMU and clean oversize and rilled material from on top of bench and in front of faces. - Provision of crushed aggregate for stemming to blast pattern area and a loader to reduce manual handling of stemming across uneven ground and on different levels.	**4**
	Access to blast area by unauthorized personnel.	**9**	- Blast area will be demarcated by signs and Yellow Cones prior to commencing loading blast. - Signage in accordance with Blast management Plan specification. - No other activities permitted within 10m for blast loading area. - Shotfirer or assistant to be on blast area at all time whilst loading blast.	**5**
Prepare shot	Sleeping shot not clearly identified resulting in unauthorised access	**9**	- Blast area will be demarcated by signs and Yellow Cones prior to commencing loading blast. - Signage in accordance with Blast management Plan specification. - Sentry in place as required. - Blue flashing night lights at entry to shot. - Sleeping Shot Notification to be issued as per *Blast Notification* list with Electrical Storm Clearance plan and Sentry positions identified.	**4**

	Blast holes may get drilled in the wrong location, to the wrong depth, or be misidentified	**7**	- Blast hole depths to be checked and confirmed with engineer before drill leaves site. - Adequate Pin Flags to be placed on hole collars for Hole identification.	**4**
	Lost blast holes reduce blast effectiveness and may cause poor relief / fly rock	**8**	- Drill holes checked prior to charging - Drill available onsite if required	**5**
	Poor understanding of site work controls/working near Mine assets. Asset damage or personal injury could result	**7**	- Site Inductions prior to commencement of work - Daily Toolbox meetings - Task *"Step Backs"*	**5**
	Unexpected hole ejection. Asset damage or personal injury could result.	**8**	- Blast Holes to be Loaded and stemmed to Design - All other holes discovered to be filled with Stemming of adequate size to hole diameter.	**4**
	Blast crew may fall over crest up to 5m high	**8**	- Minimum 600mm high windrows to be constructed along all crests. - Flat bench – no open face	**5**
Stemming Blast Holes	Holes may be bridged or blocked allowing fly rock	**8**	- Ensure stemming material is clean and well graded. - Stemming operators to be trained to recognise risk of bridging. - All suspected stemming issues to be reported to Supervisor for rectification.	**5**

Stemming Blast Holes	Manual handling of large volumes of stemming	**7**	- Utilise IT loader fitted with Stemming bucket where possible. - Use loader to place stemming piles at regular intervals across shot in areas that are inaccessible for IT loader.	**4**
	Loader may cut or damage down lines.	**7**	- Use of spotter to guide loader - Manual stemming of holes where running over lines cannot be avoided.	**4**
	Loader run over drilled holes	**7**	- Use of spotter to guide loader - Manual stemming of holes where running over lines cannot be avoided.	**4**
	Down line leads fall into drill hole	**7**	- Leads to be secured at the surface in a tidy manner so as not to fall into the hole or get caught or run-over by the Loader or Skid Steer. - In the instance of a lead being lost down a hole during stemming, stop the process and report to the Shotfirer. All efforts to retrieve the lead are to be implemented. - Failure to retrieve the lead requires the hole to be treated as a Misfire and reported in line with the Lucas Misfire procedure.	**4**
Blasting	Fly Rock. Rifling from intersected exploration holes	**9**	- Specify safe clearances and enforce. - Clearance distances to be set at minimum 300 metres for plant and 600 metres for personnel - Sufficient trained and competent Blast Guards to control all potential access points. - Blast Clearance procedure as specified within *Blasting Operations Procedure*. - Use dipping pole as required.	**5**

Blasting	Air blast damage to occupied buildings beyond clearance zone	**6**	- No buildings within the blast clearance zone. - Blast clearance zone to be determined by Shotfirer taking into account all buildings in proximity to blast zone. - Blasting shall not occur where risk of damage exists.	**4**
	Surprise to people working on site who are not aware of blast may cause accident. May cause reports of explosion to local authorities.	**7**	- Daily Prestart meeting to advise all Project Personnel of Blast time. - Blast Board in place and details of pending blast posted 24 hours prior. - Blast notification provided to distribution list of site stakeholders. - Client notification of Blast time by Project Manager. - Use site radio channels to inform all personnel on site and Blast sentries. - Shot firer's siren to be activated immediately before blast.	**4**
	Dust from blast causes nuisance, environmental harm or damage to equipment.	**7**	- Shotfirer to exercise discretion to postpone firing if prevailing wind conditions may result in harm. - Dust to be considered when determining extent of exclusion zone.	**4**
	Undiggable, non-productive blast. If whole volume is blasted to the same design, large volume of rock will be under blasted.	**7**	- Blast design to be in accordance with HSECF244 – Blast Design Sign off Sheet and verified by Client Geotechnical representative.	**4**

Blasting	May run out of time due to delays after loading has started. May have to sleep shot. Misfire may occur at last light.	**8**	- Allow plenty of time to load and fire. - Sufficient labour to complete job in time with enough time to recover misfire. - Have contingency plan to sleep shot or misfires (blast guards, sentries, signs, fences, cover material). - Load shot in sequence so it can be fired if necessary.	**5**
	Premature Initiation, Fire	**8**	- No Smoking inside demarcated blast loading area. - Staff informed of conditions at Site Induction. - Shotfirer to supervise loading/ loaded shot. - Enforce exclusion zone if fire in the vicinity. - Enforce housekeeping and remove any combustibles - Ignition sources must not be introduced to shot.	
	Rain may inundate shot with water	**7**	- Check weather forecast before loading commences. - Delay loading if rain event is expected. - Ensure blast area is well drained.	

Blasting	Lightning may occur during loading, requiring enforcement of a blast clearance zone.	**8**	- Use non-electric initiation system. - Be prepared to cut off shot and fire if lightning storm approaches, or be prepared to evacuate area. - A lightning exclusion zone is to be identified prior to blast approval showing a minimum 300m plant and 600m personnel exclusion zone around the proposed shot and Magazine/AN store area. - A locked gate or similar control is to be used to maintain the 600m exclusion to the magazine on the Magazine Rd and any other entrances to areas within the 600m zone around the Magazine/AN store. - Blast Guards to enforce exclusion zone during electrical storms.	**5**
	Domestic Animals in Blast or Local Area	**6**	- Site fenced. - Blast guards to be in place and alert - Visual inspection during Shotfirer's Pre Blast run. - Shotfirer siren run	**4**
	Potential native fauna entering area	**6**	- Site fenced. - Blast guards to be in place and alert - Visual inspection during Shotfirer's Pre Blast run. - Shotfirer siren run	**4**
	Reactive ground may react with explosive to cause premature initiation	**6**	- Check drill cuttings for pyritic mineralisation. - Reactive ground highly unlikely on Wonawinta site. - Sleeping shot to be avoided and sleep time minimised wherever possible time. - Exploration drill core testing completed for site – no reactive ground identified.	**3**

Blasting	Previous blasting activity may have broken ground or left misfires behind	**7**	- Check ground before drilling. - Make local inquiries. - Instruct Drill crew and Shot crew to be vigilant for evidence of previous blasting or drilling/ mining activity.	**5**
	Busy Two Way radio channels may interfere with communications/ unclear communication	**9**	- Digital radios to be introduced to eliminate potential for public access to network. - Channel assigned for blasting operations. (INFO Channel) - Radio silence required for those not involved in blasting during last 5 minutes prior to blast. - Blasting communication to be in accordance with *HSECG084 - Wonawinta Blasting Radio Protocols*	**5**
	Access to blast zone during firing	**9**	- Daily Prestart meeting to advise all Project Personnel of Blast time. - Blast Board in place and details of pending blast posted at the start of shift prior to the scheduled blast. - Blast notification provided to distribution list of site stakeholders. - Client notification of Blast time by Project Manager. - Use site radio channels to inform all personnel on site and Blast sentries. - Blast guards in place at all potential access points. - Visual check of exclusion zone immediately prior to blast. - Shot firer's siren to be activated immediately before blast.	**4**
	Lost drill consumables result in unsafe condition	**8**	- Lost drill consumables to be reported to the Supervisor immediately using *HSECF250 - Lost Drill Consumables*. - Blast design to be altered as required if lost consumables cannot be recovered.	**4**

Blasting	Misfire results in unsafe condition	**8**	- Shotfirer to walk entire shot confirming that shot conforms to blast tie-in design, including "Dummy" connections. - Second Shotfirer to conduct independent double check inspection of Surface Tie-Up to ensure compliance to design.	**4**
	Unexpected initiation of blast	**9**	- Do not connect initiator Detonator until all persons are cleared from clearance zone.	**4**
Post Blast Inspection	Fumes may migrate from blast	**8**	- Wait for fumes to dissipate after blast. - Use sufficient blast clearance area. - Shotfirer to determine when fired shot can be re-entered	**5**
	Dust	**7**	- Wait for dust to dissipate after blast. - Use sufficient blast clearance area. - Shotfirer to determine when fired shot can be re-entered.	**4**
	Misfires may remain unidentified in the ground and may not be correctly identified by earthmoving contractor	**8**	- Use standard procedures to check for complete initiation after blast. - Train excavator operators how to identify explosives and possible Misfires. - Have area picked up by survey and place Yellow cones and indicative signage (Misfire) to identify possible Live Explosives. - Use telltales to check initiation when using false burden.	**5**
	Blast may fail to adequately break rock to client's requirements,	**7**	- Experienced Drill & Blast Operators / Shotfirers. - Client approval required on all blast designs *HSECF244 - Drill and Blast Design Signoff Sheet.*	**4**
	Misfires incorrectly managed resulting in unsafe condition	**9**	- Suspected misfires to be managed as per *HSECOP067 – Explosives Misfire Procedure*	**5**

Storage of Explosives and handling	Fire results in detonation of explosives	**9**	- No smoking signage in pace at Magazine/ AN store and enforced. - Ignition sources removed prior to accessing Magazine or AN store. - Maintain housekeeping and remove combustibles. - Explosives storage to be located at location remote from inhabited areas. - Fire break to be maintained around storage areas. - Magazine/ AN store to be protected by locked gates, security fence and camera surveillance. - Evacuate area if bushfire threat exists. - Storage areas constructed to Australian Standard.	**5**
	Unauthorised access/ theft of explosives	**9**	- MMU and IE HE vehicle will comply with SSAN license/ Carriage of Explosives conditions. - Shotfirer to keep daily record of stock. - Magazine keys retained in safe and combination known only by SSAN cleared personnel. - Two personnel on hand whilst completing Explosives stock held inventory. - Secure Location provided overnight. - Magazine/ AN store to be protected by locked gates, security fence and camera surveillance. - Storage areas constructed to Australian Standard.	**5**
	Storage of incompatible materials results in unsafe condition	**7**	- Fuel, oil etc. not to be stored at AN compound.	

	Lightning	**8**	- On the approach of a thunderstorm, all work in magazines shall cease, doors closed and locked and all personnel shall withdraw a safe distance of a minimum of 600 metres from the magazine until the storm passes. Access to the magazine shall be closed using a locked gate or similar at least 600 metres from the magazine/ AN Store. Any areas within the mine that are within 600m of the Magazine/ AN Store shall be cleared of all personnel, doors closed and locked. - No person shall return to the Magazine until the storm has passed and the shot firer and the Mine Manager (or delegate) deems it is safe to do so.	**5**
Store and handle explosives dye	Fire or explosion	8	- Store in appropriately labeled location. - Store in ventilated area, away from direct sunlight. - No smoking or ignition sources in vicinity of storage. - Do not cut, weld or grind empty drums.	**4**
	Spills harm environment	7	- Store in Hazardous Chemical Bunded container and limit access to trained persons. - Contain spills with inert material (earth, sand etc.) - Disposal of spilled materials to be by incineration at an approved waste disposal depot in accordance with local or state regulations. - Have MSDS on hand and follow MSDS instructions.	**4**
Store and handle explosives dye	Skin, eye or respiratory contact	8	- Limit access to trained persons only. - Wear chemical resistant gloves, goggles, P3 respirator and protective clothing when handling. - Have MSDS on hand and follow MSDS instructions.	**5**

	Fire or explosion	9	- Decant in open air environment. - Close container when not in use. - No smoking or ignition sources.	**5**

1	**Procedure Objective**	To assist in the identification, assessment and control of risks through blasting operations
2	**Accompanying Tasks**	**Pre-Procedure assisting tasks** Not Applicable **Post-Procedure assisting tasks** Explosives Misfire Procedure HSECOP067
3	**Procedure Application**	This Operational Procedure applies to all Lucas Personnel and Contractors
4	**Frequency**	Where blasting activities are to be undertaken on the site
5	**Procedure Competency**	Trained & Competent Shotfirers Trained & Competent Blast Guards Cone Colouring standard as listed in Site induction
6	**Procedure**	**Risk Assessment** • Prior to the blasting operations commencing, a Risk Assessment shall be undertaken for the tasks on HSECF004 – Task Risk Assessment form. • All personnel involved in the blasting operations shall be responsible for the creation of the Job Safety & Environmental Analysis for the task as per HSECOP002 **Site Preparation** • Shotfirer to assess shot using HSECF143 – Pre Blast Checklist • Shotfirer to ensure Yellow blast cones are placed appropriately and 'Warning – Explosives Loading in Progress' signage placed around the blast perimeter. **Explosives Access** **Access to Magazines / AN Store** • Only Shotfirers nominated by the Security Manager shall access the explosives magazine / Ammonium Nitrate (AN) store. • Authorised persons to have SSAN clearance. • Register of access to explosives magazine and AN store to be maintained on HSECF243 – Magazine Key Register.

- Keys to the explosives magazine / AN store shall only be removed from the key safe by an accredited Shotfirer and shall be recorded on the Magazine Key register.
- Keys not to be left unattended or unsecured at any time
- A copy of the quantities report shall be obtained by the Shotfirer and the exact number of explosives required shall be sourced from the magazine.

Proceed to Magazine / AN Store

- Vehicle to be Site Compliant
- Driver to have Site LV Competency
- Two Way Radio communication to be maintained
- All Site Road Rules to be complied including speed limits
- Unlock gate to Magazine / AN Store Compound – Controlled Access key to be used
- No electronic devices such as mobile phones, two ways or remote electronic devices shall be carried on person into the magazine or AN Storage Shed. All such devices to remain in vehicle.

Enter Magazine / AN Store

- No two way radios, mobile phones or remote electronic devices are allowed on persons in the magazine or AN Storage Shed
- Unauthorised Persons to be escorted at all times by an Authorised person
- A minimum of two persons required for access

Magazine / AN Store Housekeeping

- No sources of flame or ignition allowed in the Magazine or AN Store
- Magazine license should be clearly displayed near the door and be a current license.
- Maintain good housekeeping standards – clean floors and remove rubbish.
- Any damage to interior of magazine report to supervisor so repairs can be done
- Ensure all open boxes in Magazine are closed. Use tape to secure box lids in the closed position
- Only associated Explosives and stores to be stored in Magazines & AN Store.
- Magazines, AN Store and Compounds to be locked at all times when unattended.
- The Magazine Stock Register – HSECF236 is to be maintained – daily checklist to confirm security of Ammonium Nitrate contents including individual seal numbers
- Ammonium Nitrate Stocktaking system to be maintained for all transactions.

Collection of Explosives for Blasting

- All explosives shall be loaded and secured immediately into the appropriate licensed Shotfirers vehicle.
- Shotfirer to label boxes for use with relevant Blast ID.
- Two persons are required at all times to access and verify quantities of explosives removed and or returned and are to be recorded into the Magazine Stock Register – HSECF236 located within the magazine.
- Transactions to be quantified and verified by both personnel present.
- Magazine to be secured at all times and keys not to be left unattended

at any time.
- All Explosives transactions to comply to HSECOP131 – *Stock Control of Explosives* including the destruction of expired Explosives.

Transport of Explosives to Blast Location

- Vehicle Pre Start checks to be completed.
- Only licensed, Site LV inducted persons to drive on site
- Only Nominated personnel to access magazines and conduct transportation of Explosives.
- Vehicle transporting Explosives to be compliant to AS2187.2 Transporting of Explosives and appropriately licensed.
- License to Carry Explosives to be valid and stored in vehicle.
- Do not exceed vehicles licensed capacity of explosives (265kgs).
- Maintain separation of HE & IE as per Aust. Standard 2187.2 2006 "Explosives – Storage, Transport & Use" or as per Explosive License conditions listed on Licence.
- All signage requirements to comply to Aust Standard 2187.2:2006 "Explosives – Storage, Transport & Use" when transporting Explosives.
- Explosives Transport receptacles to be locked when transporting Explosives.
- All Explosive transactions in and out of the Magazines are to be recorded in HSECF236 – *Explosives Stock Held Register*.
- Operators of the shot firers vehicle to ensure that they travel immediately to the blast site and ensure that the loaded vehicle is not left unattended at any time.
- Position vehicle within the Blast Exclusion Zone near the shot for unloading. Parking of vehicle to comply to Lucas site parking requirements.

Blast Loading

Identifying & Delineating Blast Zones

- Assess work area prior to day of blast for hazards
- Arrange for uneven surfaces behind & around blast area to be levelled to reduce Trip hazards
- Ensure windrows / bunds around perimeter of blast are a minimum of 0.6 metres in height
- No ore shall be left in front of free faces
- Small volumes of waste may be left in front of free faces provided there is no risk of contamination or dilution.
- Where it is proposed to fire over waste remaining from a previous shot, the shot firer shall seek approval from CCR
- Identify Blast zones below, around & in front of blast face. This zone is to be determined by the Shotfirer and MUST not to be less than 8 metres as per the Australian Standard 2187.2 2006.
- Use signs to delineate the area displaying "Blast Zone, No Unauthorised Entry". The use of Bollards may also be required.
- Delineate the Entry to the blast surface using Yellow Cones/Bollards and signage displaying "Explosives Loading in Progress, No Unauthorised Entry"
- Inspect shot floor for signs of instability (cracks, faults, slip). Identify hazards and highlight areas of concern with marker paint.
- Ensure all blast hole ore samples have been collected and removed from the blast area

- Ensure all required Blast Vector Indicators (BVI's) have been installed correctly as per approved blast design
- Sign-Off on HSECF143 Pre Blast Checklist Form to verify placement of signage and delineation.

Identifying Hole Collar ID's to Design

- Shotfirer to ensure blast design has received all required approvals prior to charging operations commencing
- Correctly identify hole collars as per plan
- Mark up Hole ID using pin flags alongside hole collars
- Mark up Stemming Lengths as per Charge Design using Paint alongside collar or indicating on Pin Flags
- Identify areas where MMU truck may need to drive/reverse over or near hole collars
- Use Collar protectors on these holes – do not prime these holes at this stage.

Prepare for Priming

- Follow blast design to ascertain correct information on Detonator and Primer selection
- Quantity of millisecond detonators and Explosive Boosters to be laid out on the shot by the Shotfirer and assistant/s.
- Place the required Detonators alongside the related hole collars
- Place the required Boosters alongside the related hole collars

Prime Blast holes

- Insert Detonator into Booster as per manufacturer instructions
- Lower it down the hole until the primer reaches the bottom.
- Assess the hole for the presence of Water if not already identified
- If a dry hole, designed to be loaded with ANFO, raise primer approx 1.8 metres off the bottom of hole or as directed by the blast design.
- Secure primer by wrapping excess down line around a suitable rock and place in front of the hole parallel to intended MMU charging direction
- If the hole is to be loaded with a "Wet Product" (Emulsion based), leave primer on the bottom of the hole. Secure down line at the surface by placing down line under a rock at the back of the hole. Note: primer is to be pulled up to allocated height in product once loading of hole begins.
- Record all usage & variations from design on HSECF144 Daily Drill & Blast Report Form. Report variations to Supervisor.
- All Waste packaging to be checked by the shotfirer and disposed of in an appropriate manner.

Dewatering Holes Using Packaged Explosive Products (Powergel Buster Plugs)

- All Packaged Products to be transported to Blast Site as Class 1.1D in accordance with Transport of Explosives to Blast Location detailed above.
- Where a reasonable amount of product is required, planning may be required to ensure licence carriage limits are not exceeded.
- Correct Manual Handling techniques are to be utilised when handling boxes. Take note of Net weight before lifting.
- Assess if the hole is able to be dewatered using packaged product. If

unsure, measure depth of water using tape measure prior to priming.

- Lower plug into hole and listening for presence of water. Repeat process until presence of water is eliminated. Prime the hole using detonator and booster. Partly slice another plug and lower on top of primer. Apply upward pressure to Primer to ensure it is caught below top Plug and irretrievable.
- Record the number of plugs that have been placed down the hole and related hole number for each hole treated on HSECF144 Daily Drill & Blast Report Form. A copy of the Blast Pattern identifying the location of the treated holes may be attached.

Ammonium Nitrate loading

- Mobile Manufacturing Unit (MMU) Operators to have read and signed off on the Safe Work Method HSECSWMIB035 *Operation of Mobile Manufacturing Unit* and HSECSWMIB036 *Loading Ammonium Nitrate into MMU with Auger.*
- Shotfirer to be present on blast pattern at all times during charging operations
- MMU Operators to obtain quantities report from the Shotfirer.
- MMU Operators to obtain and load the quantities of Ammonium Nitrate from the Shotfirer and fill the fuel oil as per SWM
- Operators of MMU to ensure that they travel immediately to the blast site and ensure that the loaded MMU is not left unattended at any time.
- MMU Operator to report to the Shotfirer on the blast site for instruction
- Identify Path to be traversed across the Blast Pattern by the MMU.
- Conduct MMU Calibration check – bucket weight check. Record data on Load Charge Report. Adjust as required.
- Instruct MMU operator to conduct Density checks when using Emulsion Based products and record on Load Charge Report
- Identify First and subsequent hole ID's to MMU operator
- Operators of the MMU to commence loading blast holes sequentially with Ammonium Nitrate Fuel Oil mix (ANFO) as per HSECSWM065 – Mobile Manufacturing Unit and HSECSWM066 Blasting Operations.
- Instruct MMU operator to set Maximum Charge Weight as per Load Sheet Report and record actual Charge Weight Data in allotted column on Load Sheet Report.
- Check that the Primer is free before loading hole. If Primer is caught and not able to be raised up the column, Repriming may be required to ensure initiation of the Column. Record variations on HSECF144 Daily Drill & Blast Report and report to Supervisor.
- Shotfirer to assess column charge height constantly. Cease Loading immediately on variation to Charge Design. Variations may be caused by Hole collar collapsing, voids or Geological Structure defects. Variations to be recorded on HSECF144 Daily Drill & Blast Report and reported to Supervisor immediately.
- Measure Charge Height accurately.
- Allow for product rise when using Emulsion based products. Refer to Product guide for expected product rise percentages and duration.
- Any overloaded hole must have explosive extracted or diminished (this will depend on type of explosive used and site conditions). The column height must then be re-checked. Variations to the Stemming Length may be required with extra burden placed on top of the collar to control possible Hole Ejection. Hole to be clearly identified and communicated to stemming operator. Variations to be recorded on HSECF144 Daily Drill & Blast Report and reported to Supervisor

immediately.

- MMU operator to return completed "Load Charge Report" to Blast Supervisor or Shotfirer on completion of Charging Holes.
- Record all usage on HSECF144 Daily Drill & Blast Report
- Sign-Off on HSECF143 Pre Blast Checklist Form is required at completion of the Charging & Stemming process by the Shotfirer.
- All Waste packaging to be inspected by shotfirer and disposed of in an appropriate manner.

Preparation Prior to Stemming

- Calculate correct size stemming medium required to suit hole diameter and amount required for blast.
- Arrange for stemming medium to be delivered to Blast site.
- Assess and determine suitable location for stemming medium to be stored on blast site.
- Delivery Truck to be spotted into location.
- Assess blast pattern & predetermine access paths across shot for Loader / Skid Steer
- Operator to have relative VOC and Operator Competency for machine used.

Conduct Stemming Operations

- Stemming operator to report to the Shotfirer for instruction
- Stemming in difficult areas to be undertaken at all times by 2 x operators and I.T Loader with stemming bucket attached.
- All stemming equipment used needs to have a Daily Pre Start check completed prior to starting the task.
- Straddling of Holes is not permitted when using a Skid Steer for Stemming Operations.
- All down line leads are to be appropriately secured at the surface in a tidy manner so as not to fall into the hole or get caught or run-over by the Loader or Skid Steer.
- Blast hole stemming to be undertaken sequentially with one operator operating the I.T Loader and a second securing the down line leads during or prior to the process where required.
- Stemming material is to be delivered into each blast hole until the blast hole design collar is reached.
- Care is to be taken by operators to not travel over any primed or stemmed blast holes.
- Where indicated by paint marks or the direction of the Shotfirer, additional burden is to be placed above the surface of hole collars requiring additional stemming. The hole number and details are to be recorded on HSECF144 Daily Drill & Blast Report.
- Where more or less than design amounts of stemming is required to fill the hole to the surface, the Shotfirer and Blast Supervisor MUST be advised. Corrective actions may need to be implemented. These will need to be recorded on HSECF144 Daily Drill & Blast Report.
- In the instance of a Down line lead being run-over by the stemming machine, the Shotfirer and Blast Supervisor MUST be advised immediately.
- The Stemming Medium size & type are to be recorded on HSECF144 Daily Drill & Blast Report.

Initiation System

Preparation Prior to Tie-In

- A Blast Pattern Tie-Up plan is to be supplied as per the approved blast design.
- A Toolbox meeting with all personnel involved in the process shall include a description of the Tie-Up and the Technique required.
- All unlicensed personnel need to be supervised by a competent, licensed Shotfirer.
- Shotfirer to confirm that all blast holes have been charged and stemmed correctly
- Assess work area for hazards. Ensure all mobile plant and rubbish is cleared from blast pattern area.

Commence Tie-In of Blast

- Shotfirer and assistant/s to distribute Surface Delay Detonators to each hole collar as per design
- Connect Surface Detonators to Down-hole Detonators in the designed sequence
- Follow Manufacturer instructions in required technique –maximum leads per bunch block, hook & slide method, etc
- Do NOT cross Detonator leads
- Shotfirer to tie in control line. Do NOT connect Initiator Detonator at this point.
- Shotfirer to walk entire shot confirming that shot conforms to blast tie-in design, including "Dummy" connections.
- Second Shotfirer to conduct independent double check inspection of Surface Tie-Up to ensure compliance to design. All Waste packaging to be inspected by shotfirer and disposed of in an appropriate manner
- Select path for Connectaline in direction of Firing point
- Do NOT connect Initiator Detonator at this point.

Blast Clearance & Firing

Day prior to Blast

- Blast Board to be updated with the date and time of the blast.
- Complete HSECF232 - Blast Communication Notice to ensure all affected parties are aware of proposed blasting activity.
- Site Manager to notify Site and Client Management via email of the proposed blast time.

Morning of the Blast

- Blast information board in Lucas Administration area to communicate relative blast information with exclusion zone diagrams.
- Blast information to be posted and Flashing Light on Blast Sign at site entrance to be activated
- Site Manager to notify all site personnel via prestart meeting;
- Shotfirer to notify Site Manager of any delay to blast operation.
- Communicate any variances to programmed blast dates and times to all stakeholders.

Selection of Firing Position

- A safe site to fire the blast from is to be determined
- Considerations need to include: direction of blast firing, wind direction, distance from blast, charging and stemming anomalies, free face conditions, angle holes, exploration holes and adits.
- Identify suitable position for blast video to be setup.

30 minutes before the blast

- Blast Guards nominated and briefed by the Shotfirer.
- Ensure blast guards are familiar and have been provided with a copy of with HSECG056V2 - Instructions for Blast Guard
- 'Danger Blasting in Progress' signage to be erected as per the Shot firer's instruction.
- All mobile plant with potential to be damaged by blast is to be moved outside the Blast Exclusion Zone 30 minutes prior to the programmed Blast Time. Sign-off required on HSECF143 – Pre Blast Checklist.

15 minutes before the blast

- Pit / Blast location cleared of all Plant & equipment to a safe distance as nominated by the Shotfirer, minimum 300metres for plant and 600metres for personnel.
- Blast Guards to be in designated positions
- Shotfirer to drive the boundary of the Blast Exclusion zone with the Blast siren activated 10 minutes prior to the Firing of the blast.
- Run out Connectaline to Firing position, cut to length using approved cutter. Shotfirer to sign off on HSECF143 – Pre Blast Checklist
- Shotfirer to connect Control Row Surface Detonators and Initiator Detonator.
- Blast Manager to verify positioning of Blast Sentries 10 minutes prior to blast. Sign off on HSECF143 – Pre Blast Checklist
- Shotfirer to Communicate status to Blast Manager.

10 minutes before the blast

- All personnel not involved in the blast to be removed to areas outside the Blast Clearance area.
- Shotfirer to make 10 minute call confirming Blast Guard's are in position at blast clearance.
- Connectaline to be inserted into base of Initiator stomper.

2 minutes before the blast

- 2 minute radio calls made
- Shotfirer to confirm with all blast guards that all access is blocked and area is secure
- Shotfirer to call for radio silence
- Shotfirer to insert firing cap in Stomper and place top on stomper ready for firing.

Shot firer to make 10 second call prior to firing shot.

Shotfirer to fire shot

Immediately after the blast

- Shotfirer notifies Blast Guards "Shot has been fired" to remain in position and maintain Radio Silence until the 'All Clear' has been given;
- Wait mandatory 5 minutes after firing at firing point prior to proceeding to blast location.
- Assess the blast area for blast fumes
- Enter the Blast area and assess the blast for Misfires.
- On completion of assessment and confirmation of no signs of Misfire, the Shotfirer is to give the ALL CLEAR via radio transmission to the

		Blast Manager. • The Blast Manager will communicate the ALL CLEAR to all stakeholders and lift the Blast Clearance Zone, allowing re-entry into the area. • Sign off on Firing and Time of Firing is required on HSECF143 – Pre Blast Checklist. • Ensure used Connectaline is wound up, collected and disposed of correctly. **Misfires Detected in Blast** • If a misfire or misfires are detected in the blast, erect blast delineation signage and cones around affected area to ensure adequate clearance distance for personnel and equipment. • Notify mine supervisor. • Refer to HSECOP067 - Explosives Misfire Procedure

7	**QSE Activity**	All documentation to be uploaded to the QSE System

8	**Performance Indicators**	Risk Assessment undertaken prior to Blasting Operations commencing JSEA created prior to Blasting Operations commencing Pre Blast checklist completed by Shotfirer Project Staff informed of Blast at Prestart Meeting Keys accessed by authorised personnel and recorded on Register Explosives magazine / Ammonium Nitrate store accessed by minimum of two persons Registers maintained as per procedure MMU operators have been trained in HSECSWM065 – Operation of Mining Manufacturing Unit Adequate Blast Guards in Place for blasting Communication devices (Sirens / Calls) made as per Procedure

9	**Revelant Legislation**	South Australian Occupational Health Safety & Welfare Act 1986 South Australian Occupational Health Safety & Welfare Regulations 2010 South Australian Explosives Act 1936 South Australian Explosives Regulations 2011 Australian Standard 2187 Use & Storage of Explosives Australian Explosives Code (AEC) (6th Edition) Dangerous Goods Transport Regulations 2008 Dangerous Substances Regulations 2002

10	**Related Documents**	Job Safety & Environmental Analysis Procedure	HSECOP002
		Task Risk Assessment Form	HSECF004
		Pre Blast Checklist	HSECF143
		Daily Drill & Blast Report Form	HSECF144
		Blast Communication Notice	HSECF232
		Magazine Key Register	HSECF243
		Magazine Stock Register	HSECF236

		Lost Drill Consumables Report	HSECF250
		Drill Preparation Sign Off Sheet	HSECF251
		HSECOP067 – Explosives Misfires Procedure	HSECOP067
		Operation of Mobile Manufacturing Unit Safe Work Method Statement	HSECSWM065
		Blasting Operations Safe Work Method Statement	HSECSWM066
		Blasting MSDS Register	

LUCAS	**Explosives Misfire Procedure**			AS / NZS 4801 ISO 18001
Procedure Reference	Form Reference	Issue	Date	Revision Date
HSECOP067	HSECF145	Version 1	April 2010	April 2013

1	**Procedure Objective**	To asssist in the safe recovery of misfired charges within Lucas Blasting Operations
2	**Accompanying Tasks**	**Pre-Procedure assisting tasks** Blasting Operations Procedure HSECOP066 **Post-Procedure assisting tasks** Not Applicable
3	**Procedure Application**	This Operational Procedure applies to all Lucas Personnel and Contractors
4	**Frequency**	Where there is a misfire in Blasting Operations
5	**Procedure Competency**	Trained & Competent Shotfirers Trained & Competent Blast Guards Trained Excavator Operators
6	**Procedure**	**Misfires** • All blasting activities, from design, through to loading and excavating should be undertaken on the assumption that misfires will occur. • Management shall be contacted immediately in the event of a misfire occurring. • The following precautions should be taken at the beginning of every job even if misfires are not expected or have not been found: • Excavator operators should be trained to identify the explosives being used on site, and told what to do and what NOT to do when a misfire is discovered; • All loading techniques and practices should be documented and consistent, and all variations from the plan must be noted. This information becomes vital in the event of a mass misfire recovery – it is very important to be able to predict the location of the potential misfires in advance. • All hole collars should be surveyed in a reproducible co-ordinate system so holes can be re-located after the blast if necessary. **Access to Explosives** • Only Shotfirers nominated by the Security Manager shall access the explosives magazine / Ammonium Nitrate (AN) store. • Keys to the explosives magazine / AN store shall only be removed from the key safe by an accredited shotfirer and shall be recorded on the key register.

		• Two persons are required at all times to access and verify quantities of appropriate explosives removed and are to be recorded into the magazine register located within the magazine. • Magazine to be secured at all times and keys not to be left unattended at any time. **Powder evident in misfire** • Place one open end of the cut piece of non electrical tube in the palm of one hand, and then tap the other with your finger. If powder falls to the palm of the hand then a misfire has been identified. • Barricade the immediate misfire area with bunting and place danger signage around site. • Shotfirer to access appropriate explosives required • Using the Nonel lead in line, connect up misfire then fire. **Powder not evident in misfire** • When ANFO is evident in the Misfire, the Shotfirer to attempt to ignite blast hole by burying a booster connected with Nonel downhole detonator in the visible ANFO. • Where ANFO not evident in the misfire, an attempts shall be made to locate the ANFO through controlled excavation. • Excavation to the designated level shall begin using the bucket of the excavation to clear the bench of broken rock as far as practicable. • When ANFO is located the shotfirer shall call for a water truck to proceed to the site. • The Shotfirer shall inspect the misfire to determine a safe method to wash out the misfire. • The misfire shall be washed out by the Shotfirer, continuing to wash out the ANFO, checking to ensure that all visible ANFO is dissolved. • Shotfirer to complete HSECF145 – Misfire Recovery Sheet • Shotfirer and other authorised person to return reclaimed booster and detonators if applicable to the Explosives magazine. • Complete the magazine register
7	**QSE Activity**	All documentation to be uploaded to the QSE System
8	**Performance Indicators**	Excavator Operators trained in the identification of explosives used All Loading techniques and Practices as per plan Misfires excavated in controlled fashion as per procedure Recovered explosives and location recorded Misfired charges disassembled Misfired charges stored securely Misfired charged transported appropriately
9	**Revelant Legislation**	South Australian Occupational Health Safety & Welfare Act 1986 South Australian Occupational Health Safety & Welfare Regulations 2010 South Australian Explosives Act 1936 South Australian Explosives Regulations 2011 Australian Standard 2187 Use & Storage of Explosives Australian Explosives Code (AEC) (6th Edition) Dangerous Goods Transport Regulations 2008

		Dangerous Substances Regulations 2002
10	**Related Documents**	HSECOP066 – Blasting Operations Procedure HSECF145 – Misfire Recovery Sheet

LUCAS	**Instructions for Blast Guards**			AS / NZS 4801 ISO 18001
Procedure Reference	Form Reference	Issue	Date	Revision Date
HSECG056	HSECMSP005	Version 2	September 2010	September 2013

Shotfirer Name:		**Date:**	
Radio Channel:			
Blast Guard Name:		**Blast Guard Number:**	
Location:		**Blast Time:**	

Instructions

Be ready to take your assigned position <u>15 minutes</u> before the blast.
If you have been instructed to advise people of the impending blast, commence your clearance. Make sure machines are already moving out of the blast clearance area.

Block access at the 10 minute call (signaled by the shotfirer).
Do not let anyone into the blast area.

"This is Blast Guard (NUMBER/NAME), I am at (LOCATION), and in position"

Contact the Shotfirer immediately if the blast area is breached or if you see anyone in the area. For example:

"Blast Guard *(NUMBER/NAME)* to Shotfirer. Stop the blast. The blast area has been breached"

Respond to the Shotfirer's radio calls (Blast Guards only).
If your part of the blast area is secure, respond to the Shotfirer's final blast clearance call using the phrase:

"This is Blast Guard (NUMBER/NAME), I am at (LOCATION), and this access is blocked and the area is secure."

Always use your name. Do not use the words "ALL CLEAR"

Maintain your position and block access while the blast is fired and after the blast until the Shotfirer gives the all-clear. **Guards acknowledge the 'all clear' via a return call in order starting with Guard #1.**

LUCAS	Radio Phrases for Blasting			AS / NZS 4801 ISO 18001
Procedure Reference	Form Reference	Issue	Date	Revision Date
HSECG061	HSECMSP005	Version 1	September 2010	September 2013

Blast Location		Date	

Instructions

2 Minute Call (Shotfirer)
"Attention all Personnel, approximately 2 minutes to Blast Time. Blast Guards block your access. All other personnel please maintain radio silence until the blast has been fired and the all clear is given."

Check Call (Shotfirer)
"Shotfirer to Blast Guard** (number) (name), **are you in position?"

Check Call Response (Blast Sentries)
"This is Blast Guard** (number) (name), **I am at** (location), **and my access is blocked"
(Always use your name and your location. Do NOT say "ALL CLEAR" – these words are reserved for after the blast)

Ten Second Call (Shotfirer)
"This is the Shotfirer. The Blast will be fired in approximately 10 seconds"

******** 10 Seconds Radio Silence -> Fire On ********

Blast Fired Call (Shotfirer)
"This is the Shotfirer. The Blast has been fired; please remain in position until the blast has been cleared".

All Clear Call (Shotfirer)
"This is the Shotfirer. The Blast has been fired and is all clear. Please release the traffic. Blast guards please stand down". (Acknowledged by nominated Blast Guards)

Misfire call (Lucas Shotfirer)
"Attention all Personnel, a misfire has occurred. Blast guards please remain in position and await instructions". (Please maintain radio silence / Radio silence is lifted until further notice).

Fume call (Shotfirer or Blast Controller)
To be used if the blast generates visible fumes.
"Attention all blast guards, there are blast fumes moving to the (direction). Guard (#) please move away from the site and notify people in the area".

Abort Blast call (any Blast Guard)
To be used if any blast guard becomes aware of an unsafe condition or someone in the Blast Area or attempting to enter the area.
"Attention Shotfirer - This is Blast Guard (number) (Name). Stop the Blast!"

APPENDIX 2

Reference: 2010/LD-00074 (REV01)
GJR:KAB

6 March 2012

Ian Lawrence
Managing Director
Cobar Consolidated Resources Limited
PO Box 7693
St Kilda Road
MELBOURNE VIC 2004

Dear Sir

Re: **NOTICE TO APPLICANT OF DETERMINATION OF MODIFICATION TO DEVELOPMENT CONSENT 2010/LD-00074 – WONAWINTA SILVER MINE**

Your request for modification of the subject development consent has been approved. This notice now amends the original development consent being 2010/LD-00074.

Date of Determination: 29 February 2012 – Western Joint Regional Planning Panel

The Notice of Determination dated 1 June 2011 has been modified in the manner as specified below:

1. Alter the land to be developed to read:

   Lot 1 DP1164142; WLL 6238, "Manuka"
   Lot 863 DP761939; WLL 2810, "The Bluff"
   Lot 864 DP 761940; WLL 2811, "Buckambool"
   Lot 5074 DP 45018; WLL 12903, "Belford"
   Lot 4225 DP766852; WLL 9260, "Lachlan Downs"
   Lot 3633 DP766015; WLL 6239, "Wirlong"
   Part of Bedooba Road (SR13B) – Road Reserve
   Part of Lerida Road (SR 13A) – Road Reserve

2. Alter condition 1 to also reference the following supplementary documents.

   - Statement prepared by Cobar Consolidated Resources Limited being an application for modification of development consent under s96(2) of the *Environmental Planning and Assessment Act 1979* including Appendices A to F.

   - Cobar Consolidated Resources Limited letter dated 1 December 2011 in response to additional information request letter dated 28 November 2011.

3. Alter condition 13 to correct a misdescription in road naming from MR461 to MR228.

4. Alter condition 27 to read:

The Bedooba (SR13B) and Manuka (SR14) Roads which form the route from the project site to the Kidman Way (MR410) must be upgraded to achieve a suitable standard to service the proposed development. As a minimum the required upgrading must include:

a) a heavy formation grade to 8 metres wide,
b) new and/or restored table and mitre drains as needed,
c) elimination or replacement of existing stock grids to suit the 8 metre wide formation,
d) spreading and compacting 8metres by 150mm thick suitable gravel to construct a good trafficable surface,
e) installation of guide posts and
f) construction of four concrete causeways located at 8.0km, 9.8km, 10.9km and 27.7km along the route measured from the Kidman Way.

The required upgrading works must be financed by the developer at no cost to Cobar Shire Council.

Road Occupancy Licences as relevant must be obtained in respect of the required upgrading works. The required upgrading works shall be carried out in stages as follows:

a) areas requiring priority works within 3 months of this modification; and
b) the balance of the works within 18 months of this modification.

The "priority works" shall be agreed between Cobar Consolidated Resources Limited and Council's Director of Engineering Services.

Specifications for the work must meet the minimum requirements of AUS-SPEC. The roads must be maintained in a safe and trafficable condition for the duration of the upgrading works project.

5. Include the following additional conditions in the Notice of Determination.

Additional Conditions

37. Prior to upgrading work on road being commenced, maintenance grading to be undertaken on the road monthly or as required, by a Council authorised contractor during the construction stage of the mine.

38. A bank guarantee with no lapsing date in favour of Cobar Shire Council, subject to CPI indexing 6 monthly to cover value of restoring the road to it's existing condition pre mining, to the value of $200,000 which is to be provided to Cobar Shire Council within 3 months of this determination being made.

39. Cobar Consolidated Resources Limited (CCR) will provide Council with appropriate test results for material to be used ex-site for road construction work to determine its suitability consistent with AUS-SPEC standards.

40. The applicant must apply for and obtain a Licence from the NSW Department of Primary Industries Crown Lands Division in respect of the borefield on the "Wirlong' property and the water pipeline between the mine site and the "Wirlong' property.

41. Conformably with AUS-SPEC Cobar Consolidated Resources Limited will, at its own cost, apply gravel sheeting or lower the entranceway to "Manuka" within 3 months of the date of this modification. Any gate, grid or similar structure constructed on the access must be positioned to provide suitable storage capacity for the largest class of vehicle requiring access to the property off the carriageway of the Bedooba Road.

42. The mine access road will within 3 months of the date of this modification, be inspected by Cobar Consolidated Resources Limited and Council's Director of Engineering Services to ensure that road side drainage is constructed to and if not shall be so constructed to generally comply with *Managing Urban Stormwater - Soils and Construction – Volume 2C Unsealed Roads.*

43. The modified mine access road and water pipeline must be included in the Water Management Plan required by condition 15 of this consent.

6. Include the following items of advice in the Notice of Determination:

Advice to Applicant

a) The GTAs provided by the NSW Office of Water and attached to this Consent Notice do not represent the Controlled Activity Approval or the licences for Groundwater Bores. The applicant must apply (to NSW Office of Water) after consent has been issued by Council and before the commencement of any 'works' on waterfront land or relating to monitoring bore construction.

b) Conditions 15 and 16 of Development Consent 2010/LD-00074 as recommended by the NSW Office of Water remain applicable to the development proposal and must be satisfied.

c) Condition 5 of Development Consent 2010/LD-00074 regarding the need for approval under s138 of the Roads Act 1993 remains applicable and must be satisfied. In this regard an application lodged with Council for approval for work on Shire Roads 13B and 14 must be accompanied by appropriate engineering details and plans including:

i. Project Management Plan
ii. Quality Management Plan
iii. Safety Management Plan

d) Compliance with condition 12 of Development Consent 2010/LD-00074 will be applied as a pre-condition to Council providing concurrence to the Pre-Mining Operations Compliance report required by condition 31 of the same consent.

7. Alter the Notice of General Terms of Approvals to also reference letter dated 21 November 2011 from the NSW Office of Water including Attachments 1, 2 and 4.

8. Alter the Notice of General Terms of Approvals to also reference letter dated 23 December 2011 from NSW Government Environment, Climate Change and Water including Attachments A and B.

Section 97AA of the *Environmental Planning and Assessment Act 1979* provides a right of appeal to an applicant who is dissatisfied with the determination of a consent authority. The right of appeal is to the Land and Environment Court and must be exercised within the prescribed time period detailed in s97AA.

The reasons for the imposition of conditions are as stated in the altered Notice of Determination.

If you require further information please contact Council's Planning and Environmental Services Department on 02 6836 5888.

Yours faithfully

Garry Ryman
DIRECTOR OF PLANNING & ENVIRONMENTAL SERVICES

NSW GOVERNMENT | Office of Water

21 November 2011

General Manager
Cobar Shire Council
PO Box 223
COBAR NSW 2835

Contact Tim Baker
Phone (02) 6841 7403
Mobile 0428 162 097
Fax (02) 6884 0096
Email Tim.Baker@water.nsw.gov.au

Attention: Garry Ryman

Our ref ER20927
Your ref 2010/LD-0074. Pt/5

Dear Mr Ryman

WONAWINTA SILVER PROJECT – SECTION 96(2) MODIFICATION APPLICATION

The NSW Office of Water has reviewed the supporting documentation for the Modification Application (DA2010/LD0074) received by Cobar Shire Council on 27/10/2011 for the Wonawinta Silver Project. Office of Water has reviewed the previously issued General Terms of Approval (GTAs) included in a letter dated 7 April 2011 and has determined that amendments are required to reflect the modified development application. The key amendments considered by the Office of Water include the following:

- 4 causeways associated with the Shire Road Reconstruction Plan require a Controlled Activity Approval under the *Water Management Act 2000* unless the works are specifically included in a lease, license, permit or other right in force in under the *Mining Act 1992*, *Crown Lands Act 1989*, *Crown Lands (Continued Tenures) Act 1989* or the *Western Lands Act 1901* ;
- Mine Access Road has been realigned to utilise the existing "Manuka" property intersection with Shire Road 13;
- An alternative borefield has been identified on the adjacent property "Wirlong".

Based on this review, the Office of Water has identified the GTAs that relate to the Controlled Activity Approval under the *Water Management Act 2000* require amendment and are shown in Attachment 1. Recommended consent conditions consistent with the response dated 7 April 2011 are provided in Attachment 2 and key comments related to the review are provided in Attachment 3. Previously issued GTAs under Part 5 of the *Water Act 1912* for monitoring bores and groundwater interception remain valid and are included in Attachment 4.

It is noted that previously issued GTAs still apply to relevant aspects of the proposal which have not been modified from the original approval.

Please note Council's statutory obligations under section 91A(3) of the *Environmental Planning and Assessment Act, 1979* (EPAA) which requires a consent, granted by a

consent authority, to be consistent with the GTAs proposed to be granted by the approval body.

If the proposed modification is approved by Council, the NSW Office of Water requests that these GTAs be included (in their entirety) in Council's development consent. Please also note the following:

- The NSW Office of Water should be notified if any plans or documents are amended and these amendments significantly change the proposed development or result in additional 'works' on waterfront land (i.e. in or within 40 metres from top of highest bank of a watercourse, foreshore, or lake). Once notified, the NSW Office of Water will ascertain if the amended plans require review or variation/s to the GTA. This requirement applies even if the proposed 'works' are part of Council's proposed consent conditions and the 'works' do not appear in the original documentation.

- The NSW Office of Water should be notified if Council receives an application to modify the consent conditions. **Failure to notify may render the consent invalid.**

- The NSW Office of Water requests notification of any legal challenge to the consent.

Under Section 91A(6) of the EPAA, Council must provide the NSW Office of Water with a copy of any determination/s including refusals.

The attached GTAs do not represent the Controlled Activity Approval or the licences for Groundwater Bores. The applicant must apply (to the NSW Office of Water) **after consent** has been issued by Council **and before** the commencement of any 'works' on waterfront land or relating to monitoring bore construction.

Applicants must complete and submit an application form together with any required plans, documents, the appropriate fee and security (i.e. bond, if applicable) and proof of Council's development consent.

Application forms for the Controlled Activity Approval are available from the undersigned or from the NSW Office of Water's website http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx. Application forms for Groundwater Licenses under Part V of the *Water Act 1912* can also be found on the website http://www.water.nsw.gov.au/Water-licensing/Applications/default.aspx

The NSW Office of Water requests that Council provide a copy of this letter to the applicant.

For general enquires in relation to this submission please do not hesitate to contact Tim Baker on (02) 6841 7403. For specific licensing enquires and for submitting the necessary licence applications please contact Alison Collaros on (02) 6841 7416.

Yours sincerely

Mark Mignanelli
Manager Major Projects, Mines and Assessment

Office of Water

ATTACHMENT 1

General Terms of Approval – for works requiring a Controlled Activity Approval under the Water Management Act 2000

Our Reference	85 ERM2011/0091	File No:	9055296
Site Address	Cobar		
DA Number	2010/LD-0074		
LGA	Cobar Shire		

Number	Condition
Plans, standards and guidelines	
1	These General Terms of Approval (GTA) only apply to the controlled activities described in the plans and associated documentation relating to and provided by Council: (i) Site plan, map and/or surveys (ii) Works Schedule (iii) Environmental Impact Statement (iv) Additional Information Report No. 802/02e (v) Application for Modification of Consent and Supporting Documentation Any amendments or modifications to the proposed controlled activities may render these GTA invalid. If the proposed controlled activities are amended or modified the NSW Office of Water must be notified to determine if any variations to these GTA will be required.
2	Prior to the commencement of any controlled activity (works) on waterfront land, the consent holder must obtain a Controlled Activity Approval (CAA) under the Water Management Act from the NSW Office of Water. Waterfront land for the purposes of this DA is land and material in or within 40 metres of the top of the bank or shore of the river identified.
3	The consent holder must prepare or commission the preparation of: (i) Vegetation Management Plan (ii) Works Schedule (iii) Erosion and Sediment Control Plan (iv) Soil and Water Management Plan
4	All plans must be prepared by a suitably qualified person and submitted to the NSW Office of Water for approval prior to any controlled activity commencing. The following plans must be prepared in accordance with the NSW Office of Water's guidelines located at ww.water.nsw.gov.au/Water-

Our Reference	85 ERM2011/0091	File No:	9055296
Site Address	Cobar		
DA Number	2010/LD-0074		
LGA	Cobar Shire		

Number	Condition
	Licensing/Approvals/default.aspx (i) Vegetation Management Plans (ii) In-stream works (iii) Watercourse crossings
5	The consent holder must (i) carry out any controlled activity in accordance with approved plans and (ii) construct and/or implement any controlled activity by or under the direct supervision of a suitably qualified professional and (iii) when required, provide a certificate of completion to the NSW Office of Water.
Rehabilitation and maintenance	
6	The consent holder must carry out a maintenance period of two (2) years after practical completion of all controlled activities, rehabilitation and vegetation management in accordance with a plan approved by the NSW Office of Water.
7	The consent holder must reinstate waterfront land affected by the carrying out of any controlled activity in accordance with a plan or design approved by the NSW Office of Water.
Reporting requirements	
8	The consent holder must use a suitably qualified person to monitor the progress, completion, performance of works, rehabilitation and maintenance and report to the NSW Office of Water as required.
Security deposits	
9	N/A
Access-ways	
10	N/A
11	N/A
Bridge, causeway, culverts, and crossing	
12	The consent holder must ensure that the construction of any bridge, causeway, culvert or crossing does not result in erosion, obstruction of flow, destabilisation or damage to the bed or banks of the river or waterfront land, other then in accordance with a plan approved by the NSW Office of Water.
13	The consent holder must ensure that any bridge, causeway, culvert or crossing does not obstruct water flow and direction, is the same width as the river or sufficiently wide to maintain water circulation, with no significant water level difference between either side of the structure other then in accordance with a plan approved by the NSW Office of Water.
Disposal	
14	The consent holder must ensure that no materials or cleared vegetation that may (i) obstruct flow, (ii) wash into the water body, or (iii) cause damage to river banks; are left on waterfront land other than in accordance with a plan approved by the NSW Office of Water.

Our Reference	85 ERM2011/0091	File No:	9055296
Site Address	Cobar		
DA Number	2010/LD-0074		
LGA	Cobar Shire		

Number	Condition
Drainage and Stormwater	
15	N/A
16	N/A
Erosion control	
17	The consent holder must establish all erosion and sediment control works and water diversion structures in accordance with a plan approved by the NSW Office of Water. These works and structures must be inspected and maintained throughout the working period and must not be removed until the site has been fully stabilised.
Excavation	
18	The consent holder must ensure that no excavation is undertaken on waterfront land other than in accordance with a plan approved by the NSW Office of Water.
19	The consent holder must ensure that any excavation does not result in (i) diversion of any river (ii) bed or bank instability or (iii) damage to native vegetation within the area where a controlled activity has been authorised, other than in accordance with a plan approved by the NSW Office of Water.
Maintaining river	
20	N/A
21	N/A
River bed and bank protection	
22	N/A
23	N/A
Plans, standards and guidelines	
24	N/A
25	N/A
26	N/A
27	N/A
END OF CONDITIONS	

End of Attachment 1
21 November 2011

Office of Water

ATTACHMENT 2

RECOMMENDED CONDITIONS OF CONSENT

The NSW Office of Water requests the following conditions be included in any consent issued for the Wonawinta Silver Project:

1. The proponent shall prepare a Water Management Plan in consultation with and to the satisfaction of the NSW Office of Water. This plan must include the following:
    a. An Erosion and Sediment Control Plan
    b. A Surface Water Management Plan
    c. A Groundwater Management Plan
2. The proponent must obtain relevant licensing under Part 5 of the *Water Act 1912* from the NSW Office of Water before commencing any works which intercept or extract groundwater.

End of Attachment 2
21 November 2011

Office of Water

ATTACHMENT 3

ASSESSMENT COMMENTS

Licensed Water Supply

NSW Office of Water acknowledges that an alternative groundwater source has been identified on the adjacent property "Wirlong" and that this provides an additional water supply option for the project.

Office of Water advises Council that the applicant has lodged a Permanent Transfer Application under the *Water Act 1912* to transfer a water entitlement of 750 megalitres to a proposed borefield on "Wirlong". It is noted that at the time of this response the transfer application and associated applications for groundwater works is being processed by Office of Water hydrogeologists and licensing staff. As this licence application has already been lodged with Office of Water this response has not included associated GTAs. However a recommended condition for a Part 5 licence under the *Water Act 1912* is applicable.

Water Supply Pipeline

Office of Water Licensing staff has inspected the route of the water supply pipeline from "Wirlong" to "Manuka". The pipeline does not cross any watercourses as defined under the *Water Management Act 2000*, therefore a Controlled Activity Approval is not required for construction of the pipeline.

Watercourse Crossings – Mine Access Road

Office of Water has reviewed the modified location of the mine access road and notes that it does not cross any watercourses as defined under the *Water Management Act 2000*, therefore a Controlled Activity Approval is not required for construction of the mine access road.

Watercourse Crossings – Shire Road Reconstruction

The Shire Road Reconstruction Plan includes construction of four causeways located at 8.0km, 9.8km, 10.9km and 27.7km along the route measured from the Kidman Way. These crossings will require Controlled Activity Approval and the attached GTAs will apply. It is noted that the Office of Water does not support the use of pipe culverts. Box culverts or bed level causeways are preferred. Please see the attached guidelines for *Watercourse Crossings*.

Dewatering

As indicated in a previous response a license will be required under Part 5 of the *Water Act 1912* for dewatering and groundwater interception activities. An embargo dated 22/12/2008 prevents further applications under Part 5, however an exemption listed in Clause 12 of Schedule 2 of the embargo may allow the granting of a license for dewatering up to 10ML, subject to assessment by Hydrogeologist and licensing officers. The proponent will be required to apply for a dewatering license under the exemption and

the recommended condition that relates to a Part 5 licence under the *Water Act 1912* remains applicable. The proponent is advised that the current groundwater embargo and associated exemption provisions will cease upon commencement of the water sharing plan for the local groundwater system.

Monitoring Bores

As indicated in a previous response licenses will be required under Part 5 of the *Water Act 1912* for monitoring bores. An embargo dated 22/12/2008 prevents further applications under Part 5, however an exemption listed in Clause 4 of Schedule 2 of the embargo allows the granting of licenses for monitoring and test bores for groundwater investigation and/or environmental management purposes. The attached GTAs in Attachment 4 relate to the proposed monitoring bores. Office of Water expects the proposed monitoring bore network will be finalised within a Groundwater Management Plan which is recommended as a condition of consent.

End of Attachment 3
21 November 2011

NSW GOVERNMENT | Office of Water

ATTACHMENT 4

GENERAL TERMS OF APPROVAL FOR AN APPROVAL UNDER THE WATER ACT 1912 FOR GROUNDWATER BORES FOR THE WONAWINTA SILVER PROJECT

General conditions

The purposes of these conditions are to:

- define certain terms used in the other conditions
- specify the need to obtain an approval before commencing any works
- specify that, in most cases, an approval will only be issued to the occupier of the lands where the works are to be located (as required by the Water Act)
- require existing approvals to be cancelled or let lapse when a licence is issued (if applicable)
- require the safe construction and operation of all works
- require the use of appropriate soil conservation measures
- limit vegetation destruction or removal to the minimum necessary
- require the separate authorisation for clearing under the Native Vegetation Conservation Act
- allow conditions to be imposed for the management of fuel (petroleum products)
- require the payment of fees on the issuing of an approval

In the following conditions relating to an approval under the *Water Act 1912*:

- **"approval"** means a licence, permit, authority or approval under that Act;
- **"river"** has the same meaning as in section 5 of the *Water Act 1912*;
- **"work"** means any structure, earthwork, plant or equipment authorised under the approval to be granted, as defined in section 5 and 105 of the *Water Act 1912*;
- **"controlled work"** means an earthwork, embankment or levee as defined section 165 of the *Water Act 1912*.

- Before commencing any works or using any existing works for the purpose of intercepting, extracting or monitoring groundwater an approval under Part 5 of the *Water Act 1912* must be obtained from the NSW Office of Water. The application for the approval must contain sufficient information to show the development is capable of meeting the objectives and outcomes specified in these conditions.

- An approval will only be granted to the occupier of the lands where the works are located, unless otherwise allowed under the *Water Act 1912*.

- When the NSW Office of Water grants an approval, it may require any existing approvals held by the applicant relating to the land subject to this consent to be surrendered or let lapse.

- All works subject to an approval shall be constructed, maintained and operated so as to ensure public safety and prevent possible damage to any public or private property.

- All works involving soil or vegetation disturbance shall be undertaken with adequate measures to prevent soil erosion and the entry of sediments into any river, lake, waterbody, wetland or groundwater system.

- The destruction of trees or native vegetation shall be restricted to the minimum necessary to complete the works.

- All vegetation clearing must be authorised under the *Native Vegetation Act 2003*, if applicable.

- The approval to be granted may specify any precautions considered necessary to prevent the pollution of surface water or groundwater by petroleum products or other hazardous materials used in the construction or operation of the works.

- A licence fee calculated in accordance with the *Water Act 1912* must be paid before a licence can be granted.

Conditions for bores and wells

The purpose of these conditions is to:
- set a limited period for bore construction
- require the bore to be properly completed and sealed
- require certain information to be provided on completion of the work, including a location plan
- allow NSW Office of Water access for inspection and testing
- restrict the bore diameter
- specify procedures if saline or polluted water is found
- specify procedures if the bore is abandoned
- require advice if water is found
- define domestic use (if applicable)
- specify a volumetric allocation for each purpose of the entitlement (if applicable)
- specify distances works to be sited from boundaries, streams other bores etc
- identify lands that may be irrigated (if applicable)
- specify a volumetric allocation for the works purpose (if applicable)
- allow NSW Office of Water to alter the allocation at any time
- provide for a review of allocation if any subdivision occurs (if applicable)
- require regular measuring of water levels to provide information needed to manage aquifers

- Works for construction of bores must be completed within such period as specified by the NSW Office of Water

- The NSW Office of Water must be notified if a supply of useable water is obtain and the bores shall then be suitably lined and capped to the standard required by the NSW Office of Water

- Within 2 months after the works are completed the NSW Office of Water must be provided with an accurate plan of the location of the works and notified of the results of any pumping tests, water analysis and other details as are specified in the approval

- Officers of the NSW Office of Water or other authorised persons must be allowed full and free access to the works for the purpose of inspection and testing

- All works must be constructed and maintained to properly control the water extracted to prevent wastage or any reduction in quality of the sub-surface water. The NSW Office of Water may direct that any necessary repairs or alterations be undertaken to maintain the works in good working order.
- The inside diameter of any casing used to line the bore must not exceed 220 mm.
- Any saline or polluted water located above a producing aquifer must be sealed by the use of cemented casing as specified by the NSW Office of Water
- If the bore ceases to be productively used the NSW Office of Water must be notified and the aquifer must be sealed by a method acceptable to the NSW Office of Water
- Any water extracted by the works must not be discharged into any watercourse or groundwater if it would pollute that water
- Any water extracted by the works for domestic purposes may be used to irrigate gardens for private use and for use in the domestic household
- Both the pumping and non pumping levels must be recorded at least twice each year and reported with the annual groundwater return.

End of Attachment 4
21 November 2011

NSW GOVERNMENT | Environment, Climate Change & Water

General Terms of Approval

Notice No: 1121764

- 3 JAN 2012

The General Manager
Cobar Shire Council
PO Box 223
COBAR NSW 2835

-copy M4-17.06

Attention: Mr Woodman

Notice Number	1503299
File Number	LIC10/11-03
Date	23-Dec-2011

LD12010-00074 69115
OPES

Re: Modification of Development Consent 2010/LD-00074 Proposed Wonawinta Silver Mine, Cobar NSW

I refer to the development application 2010/LD-00074 and accompanying information provided for the proposed "Wonawinta" Silver Mine modification received by the Environment Protection Authority (EPA) on 3 November 2011 and subsequent information outlined in Attachment A.

General Terms of Approval - Scheduled Development Works Environment Protection Licence

Having reviewed the information provided, the EPA has determined that is able to vary the existing Scheduled Development Works License for the proposal, subject to conditions contained in the General Terms of Approval (GTAs). The applicant will need to make a separate application to the EPA to vary the existing Scheduled Development Works Licence 20020 to allow the modified Scheduled Development works to be conducted onsite.

As requested, GTAs for this proposal are provided at attachment A. Should Cobar Shire Council (Council) grant development consent for this proposal; these conditions should be incorporated into the consent.

The EPA would like to advise Cobar Shire Council that every Protection of the Environment Operations Act 1997 (POEO) licence will contain a number of mandatory conditions. A copy of the mandatory conditions has been included as a separate attachment to the general terms of approval and is provided as Attachment B.

These general terms relate to the development as proposed in the documents and information currently provided to the EPA. In the event that the development is modified either by the applicant prior to the granting of consent or as a result of the conditions proposed to be attached to the consent, it will be necessary to consult with the EPA about the changes before the consent is issued. This will enable the EPA to determine whether its general terms need to be modified in light of the changes.

These General terms of Approval allow Cobar Consolidated Resources (CCR) to undertake Scheduled Development Works associated with works the subject of this application in accordance with the information

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submitted with this application.

This does not permit the undertaking of Scheduled Activities associated with mining operations. CCR will need to make a separate application to the EPA for an EPL to allow Scheduled Activities to be carried out.

Should you have any questions, or wish to discuss this matter further please contact Brad Tanswell at the Dubbo office of the EPA on (02) 6883 5367.

Yours sincerely

22/12/11

Richard Whyte

Regional Manager

North West - Bathurst

(by Delegation)

Encl:

Attachment A: General Terms of Approval

Attachment B: Mandatory Conditions

Environment, Climate Change & Water

General Terms of Approval

Notice No: 1121764

ATTACHMENT A

General Terms of Approval

Administrative conditions

Information supplied to the EPA

Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

- the modified development application 2010/LD- 00074 submitted to Cobar Shire Council on 2 November 2011 and accompanying information;
- Letter addressed to Cobar Shire Council dated 1 December 2011 from Cobar Consolidated Resources addressing additional information to support modification of development consent.

Fit and Proper Person

The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the Protection of the Environment Operations Act 1997, having regard to the matters in s.83 of that Act.

Discharges to air and water and applications to land

Location of monitoring/discharge points and areas

The following point(s) referred to in the table are identified in this licence for the purposes of monitoring and/or the setting of limits for discharges of pollutants to water from the point.

The following utilisation area(s) referred to in the table are identified in this license for the purposes of monitoring and/or the setting of limits for any application of solids or liquids to utilisation area(s).

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EPA identification number	Type of monitoring point	Type of discharge point	Description of location
7	Weather Monitoring		Weather Station located on mine site

Note: The monitoring requirements may be modified by the EPA subject to ongoing review of license conditions and monitoring results.

LIMIT CONDITIONS

Pollution of waters

Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

Potentially Offensive Odour

The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.

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 environment protection license as a potentially offensive odour and the odour was emitted in accordance with the conditions of a license directed at minimising odour.

No condition of this license identifies a potentially offensive odour for the purpose of Section 129 of the Protection of the Environment Operations Act 1997.

Concentration limits

NA

Waste limits

The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997.

This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the Protection of the Environment Operations Act 1997.

General Terms of Approval

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L3 Noise limits

L3.1 Noise generated at the premises must not exceed the noise limits presented in the table below. The locations referred to in the table are identified in the document, Cobar Consolidated Resources Limited – Wonawinta Silver Project – Environmental Impact Statement prepared by R.W. Corkery & Co. Pty Ltd dated 21 December 2010, or except as otherwise noted in the table below.

Location	Day LAeq (15 minute)	Evening LAeq (15 minute	Night LAeq (15 minute)	Night (LA1 1 minute)
Manuka - see note below	37	37	37	45
Wirlong - See note below	36	36	36	45
Any other residential premises not nominated above, at the time of project approval	35	35	35	45

L3.2 Note: As identified in "Cobar Consolidated Resources Limited- Wonawinta Silver Project- Environmental Impact Statement prepared by R.W. Corkery and Co Pty Ltd dated 21 December 2010, Figure 1.2 Local Setting.

L3.3 For the purpose of condition L3.1;

· Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holiday's.

· Evening is defined as the period 6pm to 10pm.

· Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holiday's.

L3.4 The noise limits set out in condition L3.1 apply under all meteorological conditions except for any one of the following:

a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or

b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or

c) Stability category G temperature inversion conditions.

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L3.5 For the purposes of condition L3.4:

a) The meteorological data to be used for determining meteorological conditions is the data to be recorded by a meteorological station to be sited in accordance with OEH Approved Methods AM-2 and AM-4; and

b) Temperature inversion conditions (stability category) shall be determined by the sigma-theta method referred to in Part E4 of Appendix E of the NSW Industrial Noise Policy.

L3.6 For the purposes of determining the noise generated at the premises:

a) Class 1 or 2 noise monitoring equipment as defined by AS IEC61672.1-2004 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing, must be used;

b) The noise monitoring equipment used at a location must be placed in a position:

i. that is, where applicable:

· approximately on a location's property boundary that is closest to the premises, where any dwelling at the location is within 30 metres of the location's property boundary that is closest to the premises; or

· within 30 metre of a dwelling façade, but not closer than 3m, where any dwelling at a location is situated more than 30 metres from the location's property boundary that is closest to the premises;

to determine compliance with the LAeq(15 minute) noise limits in condition L3.1; or

ii. that is within 1 metre of a dwelling façade at a location to determine compliance with the LA1(1 minute) noise limits in condition L3.1; and

iii. that is:

· at the most affected point at a location where there is no dwelling at the location; or

· at the most affected point within an area at a location prescribed by conditions L3.6(b)(i) or L3.6(b)(ii).

L3.7 An exceedance will still occur where noise generated from the premises in excess of the

appropriate limit specified in the condition L3.1 is detected:

· in an area at a location other than an area prescribed by conditions L3.6(b)(i) or L3.6(b)(ii); and/or

· at a point other than the most affected point at a location.

L3.8 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.

L4 Blasting

Blasting is not permitted on the premises.

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OPERATING CONDITIONS

Dust

Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.

All dust control equipment must be operable at all times with the exception of shutdowns required for maintenance.

Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.

Bunding Requirements

All above ground storage facilities containing flammable and combustible liquids must be bunded in accordance with Australian Standard AS 1940-2004.

Tailings Facilities

The Tailings Storage Facility, Raw Water Dam and Lead Concentrate Drying Ponds must have a basal barrier or impermeable liner with an equivalent permeability of 1 x 10^{-9} metres per second over a minimum thickness of 900 millimetres or other liner approved by the EPA.

Freeboard

A minimum of 500mm freeboard must be maintained in the Tailings Storage Facility, Process Water Dam, Lead Concentrate Drying Ponds and Raw Water Dam.

Stormwater/sediment control - 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 run-off from and within the premises during 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: Council Handbook* (available from the EPA).

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Stormwater/sediment control - Operation Phase

A Stormwater Management Scheme must be prepared for the development and must be implemented. Implementation of the Scheme must mitigate the impacts of stormwater run-off from and within the premises following the completion of construction activities. 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: Council Handbook* (available from the EPA).

MONITORING AND RECORDING CONDITIONS

Monitoring records

The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with the load calculation protocol must be recorded and retained as set out below.

All records required to be kept by the licence must be:

- in a legible form, or in a form that can readily be reduced to a legible form;
- kept for at least 4 years after the monitoring or event to which they relate took place; and
- produced in a legible form to any authorised officer of the EPA who asks to see them.

The following records must be kept in respect of any samples required to be collected:

- the date(s) on which the sample was taken;
- the time(s) at which the sample was collected;
- the point at which the sample was taken; and
- the name of the person who collected the sample.

Requirement to monitor concentration of pollutants discharged

NA

Testing methods - concentration limits

NA

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Requirement to Monitor Weather

For each monitoring 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 7- Weather Station Location on the Mine Site

Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Rainfall	mm	Continuous	24 hour	AM-4
Wind speed and direction	m/s & degrees	Continuous	15 minute	AM-2 and AM-4
Air temperature	Degrees (C)	Continuous	15 minute	AM-4
Sigma theta	Degrees	Continuous	15 minute	AM-2 and AM-4

REPORTING CONDITIONS

The applicant must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation worksheets with the return.

Reporting Fauna Deaths or Injury

The licensee must report any incident of death or injury (including bogging or miring) of fauna (avian and terrestrial) associated with the Tailings Impoundment or tailing runoff dam by telephoning the EPA's Pollution line on 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 on which the incident occurred.

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General Conditions

Signage

Each monitoring and discharge point must be clearly marked by a sign that indicates the EPA point identification number.

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ATTACHMENT B

Mandatory Conditions for all EPA licences

Administrative conditions

Operating conditions

Activities must be carried out in a competent manner

Licensed activities must be carried out in a competent manner.

- This includes:
  - the processing, handling, movement and storage of materials and substances used to carry out the activity; and
  - the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

Maintenance of plant and equipment

- All plant and equipment installed at the premises or used in connection with the licensed activity:
  - must be maintained in a proper and efficient condition; and
  - must be operated in a proper and efficient manner.

Monitoring and recording conditions

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.

- The record must include details of the following:
  - the date and time of the complaint;
  - the method by which the complaint was made;
  - any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
  - the nature of the complaint;
  - the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
  - if no action was taken by the licensee, the reasons why no action was taken.

The record of a complaint must be kept for at least 4 years after the complaint was made.

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The record must be produced to any authorised officer of the EPA who asks to see them.

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.

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.

This condition does not apply until 3 months after this condition takes effect.

Reporting conditions

Annual Return documents

What documents must an Annual Return contain?

- The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
    - a Statement of Compliance; and
    - a Monitoring and Complaints Summary.

A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before 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.

Period covered by Annual Return

An Annual Return must be prepared in respect of each reporting, except as provided below

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.

- Where this licence is transferred from the licensee to a new licensee,
    - 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
    - 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.

Note: An application to transfer a licence must be made in the approved form for this purpose.

- 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
    - in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
    - in relation to the revocation of the licence – the date from which notice revoking the licence operates.

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Deadline for Annual Return

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').

Licensee must retain copy of Annual Return

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.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

(a) the licence holder; or

(b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

A person who has been given written approval to certify a Statement 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 this licence.

Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act

Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

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.

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.

- The request may require a report which includes any or all of the following information:

General Terms of Approval

- the cause, time and duration of the event;
- the type, volume and concentration of every pollutant discharged as a result of the event;
- 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; and
- 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;
- action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;
- any other relevant matters.

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.

General conditions

Copy of licence kept at the premises or on the vehicle or mobile plant

A copy of this licence must be kept at the premises or on the vehicle or mobile plant to which the licence applies.

The licence must be produced to any authorised officer of the EPA who asks to see it.

The licence must be available for inspection by any employee or agent of the licensee working at the premises or operating the vehicle or mobile plant.

All communications to be addressed
to the General Manager
PO Box 223
Cobar NSW 2835

Telephone: (02) 6836 5888
Facsimile: (02) 6836 5889
Email: mail@cobar.nsw.gov.au
Website: www.cobar.nsw.gov.au
In your reply please quote:

Ref: GJR:KAB
File: 2010/LD-00074

"Regional Centre in Western NSW"

Cobar Shire Council Offices:
36 Linsley Street
Cobar NSW 2835
ABN 71 579 717 155

1 June 2011

Ian Lawrence
Managing Director
Cobar Consolidated Resources Limited
PO Box 7693
St Kilda Rd
MELBOURNE VIC 3004

Dear Ian

Notice of Determination of a Development Application

Environmental Planning and Assessment Act 1979

Local Development Application No. ***2010/LD-00074***

Local Development Application

Applicant Name	***Ian Lawrence***
	Managing Director
	Cobar Consolidated Resources Limited
Land to be Developed	***Lot 3632 DP766014; WLL 6238, "Manuka"***
	Lot 863 DP761939; WLL 2810, "The Bluff"
	Lot 864 DP 761940; WLL 2811, "Buckambool"
	Lot 5074 DP 45018; WLL 12903, "Belford"
	Lot 4225 DP766852; WLL 9260, "Lachlan Downs"
	Part of Bedooba Road (SR13B) – Road Reserve
	Part of Lerida Road (SR 13A) – Road Reserve
Proposed Development	***Wonawinta Silver Project***
	Note: Mirrabooka Water Pipeline Route excepted pursuant to s 80(4) of the Environmental Planning and Assessment Act 1979

Determination

Pursuant to Section 81 of the *Environmental Planning and Assessment Act 1979,* notice is given that the above Development Application has been determined by the granting of consent, subject to the conditions specified in this Notice.

Determination by: ***Western Region Joint Planning Panel***

Date of determination: ***24 May 2011***

Date from which consent operates: ***1 June 2011***

Date Consent Lapses: ***2 June 2016***

Review of Determination

The applicant may under s82A of the *Environmental Planning and Assessment Act 1979* request the consent authority to review its determination of the application the subject of this consent.

Right of Appeal

Section 97 of the *Environmental Planning and Assessment Act 1979* provides a right of appeal to an applicant who is dissatisfied with the determination of a consent authority. The right of appeal is to the Land and Environment Court and must be exercised within the prescribed time frame detailed in s97.

Section 98 of the *Environmental Planning and Assessment Act 1979* provides a right of appeal to an objector who is dissatisfied with the determination of the application. The right of appeal is to the land and Environment Court and must be exercised within 28 days as prescribed in s98

Other Approvals

This consent does not include any other approvals granted under s78A of the *Environmental Planning and Assessment Act 1979.*

Conditions

1. The development must be carried out in accordance with the documents listed below, except where amended by other conditions of this consent:

Environmental Impact Statement (December 2010) for the Cobar Consolidated Resources Limited Wonawinta Silver Project prepared by R W Corkery & Co Pty. Limited and as amended by the following supplementary documents.

- Response to DECCW Initiated Stop the Clock
- Additional information supplied in Response to DECCW Initiated Stop the Clock (15 February 2011)
- Response to I&I Request for Additional Information
- Additional information supplied in Response to DECCW Initiated Stop the Clock (1 March 2011)
- Response to Council Request for Additional Information
- Response to NOW Request for Additional Information
- Response to RTA Request for Additional Information
- Revised Appendices C, D & E to the Ecological Assessment prepared by Oz Ark Environmental and Heritage Management Pty Ltd received 15 April 2011.
- Revised Appendices B, C, D, E, F & G to the Ecological Assessment prepared by Oz Ark Environmental and Heritage Management Pty Ltd received 28 April 2011.

2. In the event of any inconsistency between conditions of this consent and documents referred to above, the conditions of this consent prevail.

3. The applicant must ensure that all obligations under the *Building and Construction Industry Long Service Payments Act 1986* have been satisfied prior to commencing any development on the site. A Construction Certificate cannot be issued until any required Long Service Levy payable under the above Act has been paid.

4. A sign must be erected in a prominent position on any site on which building work is being carried out, identifying the following:

a) the name, address and telephone number of the principal certifying authority for the work,
b) showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and
c) stating that unauthorised entry to the site is prohibited.

Any such sign is to be maintained while the work is being carried out, but must be removed when the work has been completed

5. Approval must be obtained under Section 138 of the *Roads Act 1993* to carry out works on or within a public road from the appropriate roads authority prior to the work commencing.

6. Building work (exempt development building work excepted) approved by this consent must not commence until:

a) A Construction Certificate has been issued.
b) A Principal Certifying Authority has been appointed.
c) A notice of intention to commence work has been issued to Council.

7. The applicant must implement all practicable measures to prevent or minimise harm to the environment during the construction and operation of the development.

8. No nuisance or interference with the amenity of the area is to be created by reason of any process or operation on the premises causing the emission of noise, dust, smoke or any polluted discharge whatsoever.

9. This consent does not authorise the use of the development site for the receipt or disposal of waste brought on to the development site from other land.

10. A Bush Fire Management Plan for the development must be prepared and implemented generally in accordance with the proposal detailed in the amended Environmental Impact Statement.

11. The applicant must provide Council with written notice of intention to commence any development work on the site at least 5 days prior to commencing.

12. The applicant must submit a Pre-Commencement of Work Compliance Report to Council certifying that all pre-conditions to work commencing on site have been satisfied. The Pre-Commencement of Work Compliance Report must be provided and have received Council's concurrence prior to giving written notice of intention to commence work and include:

a) details of how the conditions of consent required to be addressed prior to commencing work have been complied with,
b) details of when each relevant condition of consent was complied with, including submissions dates of any required report and/or approval dates; and
c) details of any approvals or licences required to be issued prior to commencing work.

13. The applicant must consult with Bogan Shire Council with a view to negotiating an agreement regarding a maintenance and improvement contribution in respect of the unsealed section of MR461 within the Bogan Shire Council local government area.

14. The applicant must consult with Cobar Shire Council with a view to negotiating the funding of a project and/or projects identified in its Community Enhancement Program.

15. The proponent shall prepare a Water Management Plan in consultation with and to the satisfaction of the NSW Office of Water. This plan must include the following and be approved prior to any works commencing on site:

a) An Erosion and Sediment Control Plan.
b) A Surface Water Management Plan.
c) A Groundwater Management Plan.

16. The proponent must obtain relevant licensing under Part 5 of the *Water Act 1912* from the NSW Office of Water before commencing any works which intercept or extract ground water.

17. The proponent must prepare and implement a Rehabilitation Plan to the satisfaction of the Director General (DG) of I&I NSW. The Rehabilitation Plan must:

a) be prepared in accordance with any relevant I&I NSW guidelines and in consultation with relevant agencies and stakeholders;
b) be submitted and approved by the DG of I&I NSW prior to the commencement of mining or mining related activities;

c) address all aspects of rehabilitation and mine closure, including final land use assessment, rehabilitation objectives, domain objectives, completion criteria and rehabilitation monitoring, in particular;
   i. include an evaluation of end land use options for final void/s;
   ii. include life of mine tailings management strategy, including an environmental risk assessment in order to demonstrate that the emplacements can be designed, managed and rehabilitated appropriately; and
   iii. describe how rehabilitation will be carried out progressively to the extent that it is practicable.

18. The proponent must submit an application for an Aboriginal Heritage Impact Permit (AHIP) for all Aboriginal sites to be impacted by the proposal. The sites that are to be impacted by the proposal are to be identified and fenced until an AHIP is obtained for the relevant site. Works on these sites (both directly and indirectly) must not commence until an AHIP has been obtained. The proponent must ensure compliance with the consultation and other requirements outlined in DECCW's Aboriginal Cultural Heritage requirements for proponents, 2010 in applying for an AHIP.

19. Should any Aboriginal object be discovered works in the immediate vicinity of the object which might impact (both directly and/or indirectly) on the object must cease and the proponent must notify DECCW.

20. All effluent generated on site must be disposed of in accordance with the requirements of the *Protection of the Environment Operations (Waste) Regulation 2005* and *Protection of the Environment Operations Act 1997.*

21. The proponent must consult with DECCW and other relevant agencies regarding any proposed discharges of effluent generated on site. This includes the need to consult with Council regarding any required s68 *Local Government Act 1993* approvals.

22. The applicant is to comply with all the RTA's terms of concurrence pursuant to Section 138 of the *Roads Act 1993* before any transportation of plant, product or other goods or materials is commenced following approval of the development application.

23. The applicant is to prepare and supply a Code of Conduct to all drivers of heavy vehicles (including contractors) transporting plant, product or other goods or material to or from the project site.

24. The Code of Conduct is to include:
a) Details of the transportation hours pursuant to approval of the development application.
b) That no transportation of plant, product or other goods or materials is to occur outside of the transportation hours.
c) Procedure for the transport of hazardous materials.
d) Details of the transportation routes to be followed for the delivery of product including alternative transportation routes following road closure due to wet weather.
e) Details of the local school bus route, operating hours and pick-up and drop-off points along the transportation route.
f) That drivers are to be conscious of the school bus and school children particularly during the operating hours of the local school bus.
g) That drivers are to operate their vehicles in a safe, professional and courteous manner.

25. The Code of Conduct is to be given RTA concurrence and distributed to drivers prior to commencement of any transportation, including transportation for the purposes of construction.

26. Bus services are to be provided for the transport of all staff (employees and contractors) to the mine site from Cobar. Staff are to be educated about and pro-actively encouraged to use the service through such means as staff inductions and toolbox meetings.

27. The Bedooba (SR13B) and Manuka (SR14) Roads which form the route from the project site to the Kidman Way (MR410) must be upgraded to achieve a suitable standard to service the proposed development. As a minimum the required upgrading must include:
a) a heavy formation grade to 8 metres wide,
b) new and/or restored table and mitre drains as needed,

c) elimination or replacement of existing stock grids to suit the 8 metre wide formation,
d) spreading and compacting 8metres by 150mm thick suitable gravel to construct a good trafficable surface,
e) installation of guide posts and
f) construction of four concrete causeways located at 8.0km, 9.8km, 10.9km and 27.7km along the route measured from the Kidman Way.

The required upgrading works must be financed by the developer at no cost to Cobar Shire Council.

Road Occupancy Licences as relevant must be obtained in respect of the required upgrading works. The required upgrading works must be completed prior to the commencing of mining operations. Specifications for the work must meet the minimum requirements of AUS-SPEC. The roads must be maintained in a safe and trafficable condition for the duration of the upgrading works project.

28. The Bedooba (SR13B) and Manuka (SR14) Roads which form the route from the project site to the Kidman Way (MR410) must be maintained to a suitable standard to service the proposed development. As a minimum required maintenance must include:

a) twelve (12) full maintenance grades using a grader, roller and water cart per annum.
b) gravel re-sheeting work as needed each 12 to 18 months.

The required maintenance work must be financed by the developer at no cost to Cobar Shire Council.

Road Occupancy Licences as relevant must be obtained in respect of the required maintenance works. Specifications for the work must meet the minimum requirement of AUS-SPEC.

29. The applicant must develop a Code of Conduct for all staff (management, employees and contractors) recommending against the use of Shuttleton Road (SR15), Lerida Road (SR13A) and the parts of Bedooba Road (SR13B) not included in the route from the project site to the Kidman Way for project related purposes.

Notes:

i. Maintenance related travel identified in the required road occupancy licence for McKinnon's Water Pipeline Route is excepted.
ii. Travel to and from the project site by staff or contractors residing on the listed roads is excepted.
iii. A contractor travelling to or from another job site located on the listed roads is excepted.

30. The applicant must provide Council with written notice of intention to commence mining operations on the site at least 5 days prior to commencing.

31. The applicant must submit a Pre-Mining Operations Compliance Report to Council certifying that all pre-conditions to mining operations commencing on the site have been satisfied. The Pre-Mining Operations Compliance Report must be provided and have received Council's concurrence prior to giving written notice of intention to commence mining operations and:

a) details of how the conditions of consent required to be addressed prior to commencement of operation have been complied with;
b) details of when each relevant condition of consent was complied with, including submissions dates of any required report and/or approval dates; and
c) details of any approvals or licences required to be issued prior to the commencement of operation.

32. The Applicant shall prepare a suitable Biodiversity Offset Strategy (in the form of a Property Vegetation Plan or equivalent arrangement) to compensate for the impacts of the project. This Biodiversity Offset Strategy must:

a) be prepared in consultation with the NSW Office of Environment and Heritage;
b) quantify and categorise the biodiversity values of both the impacted site and proposed offset area(s);
c) incorporate an area of up to 600ha (based on a 2:1 ratio of offset to disturbance) of 'like for like' vegetation;

d) provide for the protection of significant Aboriginal site 34-1-0008; and
e) be submitted to Council for approval by 31 December 2011, or such later date as is mutually agreed.

33. Within 6 months of the approval of the Biodiversity Offset Strategy (referred to in Condition 32 above), the Applicant shall provide appropriate long-term security for the area included in the strategy to the satisfaction of Council and the NSW Office of Environment and Heritage.

34. The Applicant shall prepare and implement a Biodiversity Offset Management Plan for the project. This plan must:

a) be prepared in consultation with the NSW Office of Environment and Heritage and submitted to Council within 6 months of the approval of the Biodiversity Offset Strategy (referred to in Condition 32 above);
b) describe how the implementation of the biodiversity offset strategy is to be integrated with the overall rehabilitation of the site and land management of the remaining property having regard to the applicant's intention to restore the mine site to pastoral uses to the greatest extent reasonably practicable; and
c) include:
  - detailed performance and completion criteria for the implementation of the offset strategy;
  - a detailed description of the measures that will be implemented for:
    - weed management (both control and suppression) and monitoring;
    - management of retained native vegetation and habitat;
    - feral animal control;
    - fire management;
    - management of public access;
    - supplementary revegetation;
  - a program to monitor the effectiveness of these measures, and evaluate progress against the detailed performance and completion criteria;
  - details of how the measures contained within the plan, and the biodiversity offset strategy generally, are to be funded; and
  - details of who would be responsible for monitoring, reviewing and implementing the plan.

35. The proponent shall obtain all necessary licences and approvals for the project under the Water Act 1912 and the Water Management Act 2000.

36. The proponent shall ensure that it has sufficient water for all stages of the project and if necessary shall adjust the scale of mining operations to match the available water supply.

REASONS FOR THE IMPOSITION OF THE CONDITIONS

1. To ensure the proposed development:
   a) achieves the objects of the Environmental Planning and Assessment Act, 1979;
   b) complies with the provisions of all relevant environmental planning instruments.
2. To ensure that the relevant public authorities have been consulted and their requirements are incorporated into the consent.
3. To ensure the protection of the amenity of land adjoining and in the locality of the proposed development.
4. To minimise any potential adverse environmental, social or economic impacts of the proposed development.
5. To ensure the development does not conflict with the public interest.

NOTICE OF GENERAL TERMS OF APPROVAL (GTA's)

The following list of GTA's are attached and form part of this Notice of Determination:

NSW Office of Water

- General Terms of Approval – for works requiring a Controlled Activity Approval under the *Water Management Act 2000.*
- General Terms of Approval for an approval under the *Water Act 1912* for ground water bores for the Wonawinta Project.

Department of Environment, Climate Change and Water

- General Terms of Approval – Environment Protection Licence.
- Mandatory Conditions for licences under the *Protection of the Environmental Operations Act 1997.*

The NSW Roads and Traffic Authority have provided the following terms of concurrence pursuant to section 138 of the *Roads Act 1993.*

- At the intersection of the Manuka-Yarranvale Road and the Kidman Way:
  - The left turn treatment on the Manuka-Yarranvale Road is to comply with the "Type BAL" (Basic Left Turn) treatment as shown in Figure 4.8.35 of the RTA *Road Design Guide.*
  - A right turn treatment of the "Type BAR" (Basic Right Turn) is to be constructed adjacent to the southbound lane of the Kidman Way as shown in Figure 4.8.23 Rural Conditions of the RTA *Road Design Guide* (copy enclosed). The widened shoulder is to be sealed. (This is required to provide reasonable level of safety for traffic turning right into the access and to allow following Kidman Way traffic an area to pass the right turning vehicle on the left hand side).
- The Manuka-Yarranvale Road is to be sealed for a minimum of 30 metres from the edge of the northbound traffic lane of the Kidman Way. The levels of the Manuka-Yarranvale Road are to match the levels of the Kidman Way.
- A Road Occupancy Licence is required prior to any works commencing within three metres of the travel lanes of the Kidman Way. This can be obtained by contacting Mr Paul Maloney on (02) 6861 1686. Submission of a Traffic Control Plan is required as part of this licence.
- The developer will be required to undertake private financing and construction of works on the Kidman Way, a road in which the RTA has a statutory interest. A formal agreement in the form of a Works Authorisations Deed (WAD) is required between the developer and the RTA.
- The intersection treatment at the Manuka-Yarranvale Road and the Kidman Way is to be completed prior to any other works being undertaken at the mine site.
- All works associated with the development are to be at no cost to the RTA.

NSW Industry and Investment have given support to the approval of the Wonawinta Silver Project.

The grant of development consent does not provide Cobar Consolidated Resources with the right to mine. Mining activities can only be conducted after development consent has been obtained and mining lease granted by the Minster of Resources and Energy, under the provisions of the *Mining Act 1992.*

Should the proponent lodge an application for a mining lease, the proponent may expect that any mining lease granted – provided all legislative requirements have been met – may be similar to conditions as outlined in the attached document titled ***"Standard Mining Lease Conditions 2010".*** The conditions include the requirement of the preparation of a mining operations plan and the lodgement of an appropriate mining lease security.

Mining Operations Plan

The standard mining lease conditions will require the proponent to conduct operations in accordance with an accepted Mining Operations Plan (MOP). Accordingly, the proponent is required to seek the approval of I&I NSW for a MOP for this mine development. The proponent must not commence mining or mining related activities prior to receiving approval of the MOP from I&I NSW. It is expected that further

identification of rehabilitation objectives and completion criteria will need to be included in the Mining Operations Plan/Rehabilitation Plan.

Mining Lease Security

The security required to be lodged for the mining lease, to fulfil the proponent's obligation to rehabilitate areas disturbed by mining, will be subject to a self assessment process by the proponent. This will be certified by I&I NSW to ensure that the security amount is sufficient to rehabilitate areas to be disturbed by associated mining activities.

Garry Ryman
DIRECTOR OF PLANNING & ENVIRONMENTAL SERVICES

NSW GOVERNMENT

New South Wales Office of Water

ATTACHMENT 3

General Terms of Approval – for works requiring a Controlled Activity Approval under the Water Management Act 2000

Our Reference	**85 ERM2011/0091**	File No:	
Site Address	**Cobar**		
DA Number			
LGA	**Cobar Shire**		

Number	Condition
Plans, standards and guidelines	
1	These General Terms of Approval (GTA) only apply to the controlled activities described in the plans and associated documentation relating to and provided by Council: (i) Site plan, map and/or surveys (ii) Works Schedule (iii) Environmental Impact Statement (iv) Additional Information Report No. 802/02e Any amendments or modifications to the proposed controlled activities may render these GTA invalid. If the proposed controlled activities are amended or modified the NSW Office of Water must be notified to determine if any variations to these GTA will be required.
2	Prior to the commencement of any controlled activity (works) on waterfront land, the consent holder must obtain a Controlled Activity Approval (CAA) under the Water Management Act from the NSW Office of Water. Waterfront land for the purposes of this DA is land and material in or within 40 metres of the top of the bank or shore of the river identified.
3	The consent holder must prepare or commission the preparation of: (i) Vegetation Management Plan (ii) Works Schedule (iii) Erosion and Sediment Control Plan (iv) Soil and Water Management Plan
4	All plans must be prepared by a suitably qualified person and submitted to the NSW Office of Water for approval prior to any controlled activity commencing. The following plans must be prepared in accordance with the NSW Office of Water's guidelines located at ww.water.nsw.gov.au/Water-

Our Reference	85 ERM2011/0091	File No:	
Site Address	Cobar		
DA Number			
LGA	Cobar Shire		

Number	Condition
	Licensing/Approvals/default.aspx (i) Vegetation Management Plans (ii) Laying pipes and cables in watercourses (iii) In-stream works (iv) Watercourse crossings
5	The consent holder must (i) carry out any controlled activity in accordance with approved plans and (ii) construct and/or implement any controlled activity by or under the direct supervision of a suitably qualified professional and (iii) when required, provide a certificate of completion to the NSW Office of Water.
Rehabilitation and maintenance	
6	The consent holder must carry out a maintenance period of two (2) years after practical completion of all controlled activities, rehabilitation and vegetation management in accordance with a plan approved by the NSW Office of Water.
7	The consent holder must reinstate waterfront land affected by the carrying out of any controlled activity in accordance with a plan or design approved by the NSW Office of Water.
Reporting requirements	
8	The consent holder must use a suitably qualified person to monitor the progress, completion, performance of works, rehabilitation and maintenance and report to the NSW Office of Water as required.
Security deposits	
9	N/A
Access-ways	
10	N/A
11	N/A
Bridge, causeway, culverts, and crossing	
12	The consent holder must ensure that the construction of any bridge, causeway, culvert or crossing does not result in erosion, obstruction of flow, destabilisation or damage to the bed or banks of the river or waterfront land, other then in accordance with a plan approved by the NSW Office of Water.
13	The consent holder must ensure that any bridge, causeway, culvert or crossing does not obstruct water flow and direction, is the same width as the river or sufficiently wide to maintain water circulation, with no significant water level difference between either side of the structure other then in accordance with a plan approved by the NSW Office of Water.
Disposal	
14	The consent holder must ensure that no materials or cleared vegetation that may (i) obstruct flow, (ii) wash into the water body, or (iii) cause damage to river banks; are left on waterfront land other than in

Our Reference	85 ERM2011/0091	File No:	
Site Address	Cobar		
DA Number			
LGA	Cobar Shire		

Number	Condition
	accordance with a plan approved by the NSW Office of Water.
Drainage and Stormwater	
15	N/A
16	N/A
Erosion control	
17	The consent holder must establish all erosion and sediment control works and water diversion structures in accordance with a plan approved by the NSW Office of Water. These works and structures must be inspected and maintained throughout the working period and must not be removed until the site has been fully stabilised.
Excavation	
18	The consent holder must ensure that no excavation is undertaken on waterfront land other than in accordance with a plan approved by the NSW Office of Water.
19	The consent holder must ensure that any excavation does not result in (i) diversion of any river (ii) bed or bank instability or (iii) damage to native vegetation within the area where a controlled activity has been authorised, other than in accordance with a plan approved by the NSW Office of Water.
Maintaining river	
20	N/A
21	N/A
River bed and bank protection	
22	N/A
23	N/A
Plans, standards and guidelines	
24	N/A
25	N/A
26	N/A
27	N/A
END OF CONDITIONS	

NSW GOVERNMENT | New South Wales Office of Water

ATTACHMENT 4

GENERAL TERMS OF APPROVAL FOR AN APPROVAL UNDER THE WATER ACT 1912 FOR GROUNDWATER BORES FOR THE WONAWINTA SILVER PROJECT

General conditions

The purposes of these conditions are to:

- define certain terms used in the other conditions
- specify the need to obtain an approval before commencing any works
- specify that, in most cases, an approval will only be issued to the occupier of the lands where the works are to be located (as required by the Water Act)
- require existing approvals to be cancelled or let lapse when a licence is issued (if applicable)
- require the safe construction and operation of all works
- require the use of appropriate soil conservation measures
- limit vegetation destruction or removal to the minimum necessary
- require the separate authorisation for clearing under the Native Vegetation Conservation Act
- allow conditions to be imposed for the management of fuel (petroleum products)
- require the payment of fees on the issuing of an approval

In the following conditions relating to an approval under the *Water Act 1912:*

- **"approval"** means a licence, permit, authority or approval under that Act;
- **"river"** has the same meaning as in section 5 of the *Water Act 1912;*
- **"work"** means any structure, earthwork, plant or equipment authorised under the approval to be granted, as defined in section 5 and 105 of the *Water Act 1912:*
- **"controlled work"** means an earthwork, embankment or levee as defined section 165 of the *Water Act 1912.*

- Before commencing any works or using any existing works for the purpose of an approval under Part 5 of the *Water Act 1912* must be obtained from the NSW Office of Water. The application for the approval must contain sufficient information to show the development is capable of meeting the objectives and outcomes specified in these conditions.

- An approval will only be granted to the occupier of the lands where the works are located, unless otherwise allowed under the *Water Act 1912.*

- When the NSW Office of Water grants an approval, it may require any existing approvals held by the applicant relating to the land subject to this consent to be surrendered or let lapse.

- All works subject to an approval shall be constructed, maintained and operated so as to ensure public safety and prevent possible damage to any public or private property.

- All works involving soil or vegetation disturbance shall be undertaken with adequate measures to prevent soil erosion and the entry of sediments into any river, lake, waterbody, wetland or groundwater system.

- The destruction of trees or native vegetation shall be restricted to the minimum necessary to complete the works.

- All vegetation clearing must be authorised under the *Native Vegetation Act 2003*, if applicable.

- The approval to be granted may specify any precautions considered necessary to prevent the pollution of surface water or groundwater by petroleum products or other hazardous materials used in the construction or operation of the works.

- A licence fee calculated in accordance with the Water Act 1912 must be paid before a licence can be granted.

Conditions for bores and wells.

The purpose of these conditions are to:
- set a limited period for bore construction
- require the bore to be properly completed and sealed
- require certain information to be provided on completion of the work, including a location plan
- allow NSW Office of Water access for inspection and testing
- restrict the bore diameter
- specify procedures if saline or polluted water is found
- specify procedures if the bore is abandoned
- require advice if water is found
- define domestic use (if applicable)
- specify a volumetric allocation for each purpose of the entitlement (if applicable)
- specify distances works to be sited from boundaries, streams other bores etc
- identify lands that may be irrigated (if applicable)
- specify a volumetric allocation for the works purpose (if applicable)
- allow NSW Office of Water to alter the allocation at any time
- provide for a review of allocation if any subdivision occurs (if applicable)
- require regular measuring of water levels to provide information needed to manage aquifers

- Works for construction of bores must be completed within such period as specified by the NSW Office of Water

- The NSW Office of Water must be notified if a supply of useable water is obtain and the bores shall then be suitably lined and capped to the standard required by the NSW Office of Water

- Within 2 months after the works are completed the NSW Office of Water must be provided with an accurate plan of the location of the works and notified of the results of any pumping tests, water analysis and other details as are specified in the approval

- Officers of the NSW Office of Water or other authorised persons must be allowed full and free access to the works for the purpose of inspection and testing

- All works must be constructed and maintained to properly control the water extracted to prevent wastage or any reduction in quality of the sub-surface water. The NSW Office of Water may direct that any necessary repairs or alterations be undertaken to maintain the works in good working order.

- The inside diameter of any casing used to line the bore must not exceed 220 mm.

- Any saline or polluted water located above a producing aquifer must be sealed by the use of cemented casing as specified by the NSW Office of Water

- If the bore ceases to be productively used the NSW Office of Water must be notified and the aquifer must be sealed by a method acceptable to the NSW Office of Water

- Any water extracted by the works must not be discharged into any watercourse or groundwater if it
  would pollute that water

- Any water extracted by the works for domestic purposes may be used to irrigate gardens for private use
  and for use in the domestic household

- Both the pumping and non pumping levels must be recorded at least twice each year and reported with the annual groundwater return.

ATTACHMENT A

ADMINISTRATIVE CONDITIONS

Information supplied to the EPA

Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

- the development application 2010/LD- 00074 submitted to Cobar Shire Council on 22 December 2010;
- the Environmental Impact Statement for the Wonawinta Silver Mine, prepared by R.W. Corkery & Co. Pty Limited dated December 2010 (the EIS);
- Report entitled "Response to DECCW initiated 'Stop the Clock Issued on 24 January 2011" dated February 2011.
- Letter addressed to Cobar Shire Council dated 15 February 2011 entitled "Additional Information Supplied in Response to DECCW Initiated Stop the Clock".
- Report entitled "Response to A Request from NSW I&I for Additional Information Issued on 7 February 2011" dated February 2011.
- Letter addressed to Cobar Shire Council dated 1 March 2011 entitled "Additional Information Supplied in Response to DECCW initiated 'Stop the Clock".
- Report entitled "Response to Cobar Shire Council Request for Additional Information Issued on 17 January 2011" dated March 2011.
- Report entitled "Response to a Request of NSW Office of Water for Additional Information Issued on 8 February 2011" dated March 2011.

Fit and Proper Person

The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the Protection of the Environment Operations Act 1997, having regard to the matters in s.83 of that Act.

DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND

Location of monitoring/discharge points and areas

The following point(s) referred to in the table are identified in this licence for the purposes of monitoring and/or the setting of limits for discharges of pollutants from the point.

The following utilisation area(s) referred to in the table are identified in this license for the purposes of monitoring and/or the setting of limits for any application of solids or liquids to utilisation area(s).

EPA identification number	Type of monitoring point	Type of discharge point	Description of location
1	Discharge to Tailings Storage Facility	Discharge to Tailings Storage Facility	End of line discharge pipe to Tailings Storage Facility (TSF)
2	Discharge to Process Water Dam	Discharge to Process Water Dam	End of line discharge pipe to Process Water Dam from Tailings Storage Facility
3	Groundwater Quality Monitoring		Various Groundwater Monitoring Bores located around the TSF and Processing Plant and Office Area-number and location to be determined by site specific OEMP
4	Groundwater Quality Monitoring		Various Groundwater Monitoring Bores located around pits- number and location to be determined by site specific OEMP
5	Dust Monitoring		Dust gauge located at mine site boundary closest to "Manuka"- location to be determined by site specific OEMP
6	Dust Monitoring		Dust gauge located at mine site boundary closest to "Wirlong"- location to be determined by site specific OEMP
7	Weather Monitoring		Weather Station located on mine site

Note: The monitoring requirements may be modified by the EPA subject to ongoing review of license conditions and monitoring results.

LIMIT CONDITIONS

Pollution of waters

Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

Potentially Offensive Odour

The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.

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 environment protection license as a potentially offensive odour and the odour was emitted in accordance with the conditions of a license directed at minimising odour.

No condition of this license identifies a potentially offensive odour for the purpose of Section 129 of the Protection of the Environment Operations Act 1997.

Concentration limits

For each discharge point or utilisation area specified in the table/s below, the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentrations limits specified for that pollutant in the table.

Where a pH quality limit is specified in the Table, the specified percentage of samples must be within the specified ranges. To avoid any doubt, this condition does not authorise the discharge or emission of any other pollutants.

Water and Land – Discharge Points 1 and 2- Discharge to Tailings Storage Dam and Process Water Dam

Pollutant	Units of measure	50% concentration limit	90% concentration limit	3DGM concentration limit	100% concentration limit
Cyanide (Weak Acid Dissociable)	Milligrams per litre	--	20	--	30

Waste limits

The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997.

This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the Protection of the Environment Operations Act 1997.

L6 Noise limits

L6.1. Noise generated at the Wonawinta Silver Mine[1] must not exceed the noise limits presented in the table below. The locations referred to in the table are identified in the document, *Cobar Consolidated Resources Limited – Wonawinta Silver Project – Environmental Impact Statement prepared by R. W. Corkery & Co. Pty Ltd dated 21 December 2010*, or except as otherwise noted in the table below.

		NOISE LIMITS dB(A)			
Locality	Location	Day	Evening	Night	
		$L_{Aeq\ (15\ minute)}$	$L_{Aeq\ (15\ minute)}$	$L_{Aeq\ (15\ minute)}$	$L_{A1\ (1\ minute)}$
All	Manuka[2]	37	37	37	45
	Wirlong[2]	36	36	36	45
	Any other residential premises not nominated above, at the time of project approval	35	35	35	45

Note 1: As identified in 'Cobar Consolidated Resources Limited- Wonawinta Silver Project- Environmental Impact Statement prepared by R.W. Corkery and Co Pty Ltd dated 21 December 2010.

Note 2: As identified in "Cobar Consolidated Resources Limited- Wonawinta Silver Project- Environmental Impact Statement prepared by R.W. Corkery and Co Pty Ltd dated 21 December 2010, Figure 1.2 Local Setting.

6.2. For the purpose of condition L6.1;

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holiday's.
- Evening is defined as the period 6pm to 10pm.
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holiday's.

L6.3 The noise limits set out in condition L6.1 apply under all meteorological conditions except for any one of the following:

a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or
b) Temperature inversion conditions up to 3^0C/100m and wind speeds greater than 2 metres/second at 10 metres above ground level;
c) Temperature inversion conditions greater than 3^0C/100m and up to 8^0C/100m and wind speeds greater than 1 metres/second at 10 metres above ground level; or,
d) Temperature inversion conditions greater than 8^0C/100m.

L6.4 For the purposes of condition L6.3:

a) The meteorological data to be used for determining meteorological conditions is the data to be recorded by a meteorological station to be sited in accordance with DECCW Approved Methods AM-2 and AM-4; and
b) Inversion conditions (vertical temperature gradient) shall be determined by the direct measurement of temperature lapse rate method referred to in Part E2 of Appendix E to the NSW Industrial Noise Policy.

For the purposes of determining the noise generated at the premises:

a) Class 1 or 2 noise monitoring equipment as defined by AS IEC61672.1-2004 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing, must be used;
b) The noise monitoring equipment used at a location must be placed in a position:
   i. that is, where applicable:
      - approximately on a location's property boundary that is closest to the premises, where any dwelling at the location is within 30 metres of the location's property boundary that is closest to the premises; or
      - within 30 metre of a dwelling façade, but not closer than 3m, where any dwelling at a location is situated more than 30 metres from the location's property boundary that is closest to the premises.

   to determine compliance with the $L_{eq(15\ minute)}$ noise limits in condition L6.1; or

   ii. that is within 1 metre of a dwelling façade at a location to determine compliance with the $L_{A1(1\ minute)}$ noise limits in condition L6.1; and

   iii. that is:
      - at the most affected point at a location where there is no dwelling at the location; or
      - at the most affected point within an area at a location prescribed by conditions L6.5(b)(i) or L6.5(b)(ii).

L6.6 An exceedance will still occur where noise generated from the premises in excess of the appropriate limit specified in the condition L6.1 is detected:

- in an area at a location other than an area prescribed by conditions L6.5(b)(i) or L6.5(b)(ii); and/or
- at a point other than the most affected point at a location.

L6.7. For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

Blasting limits

Blasting is not permitted on the premises.

OPERATING CONDITIONS

Dust

Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.

All dust control equipment must be operable at all times with the exception of shutdowns required for maintenance.

Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.

Bunding Requirements

All above ground storage facilities containing flammable and combustible liquids must be bunded in accordance with Australian Standard AS 1940-2004.

Tailings Facilities

The Tailings Storage Facility, Raw Water Dam and Lead Concentrate Drying Ponds must have a basal barrier or impermeable liner with an equivalent permeability of 1×10^{-9} metres per second over a minimum thickness of 900 millimetres or other liner approved by DECCW.

Freeboard

A minimum of 500mm freeboard must be maintained in the Tailings Storage Facility, Process Water Dam, Lead Concentrate Drying Ponds and Raw Water Dam.

Stormwater/sediment control - 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 run-off from and within the premises during 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: Council Handbook* (available from the EPA).

Stormwater/sediment control - Operation Phase

A Stormwater Management Scheme must be prepared for the development and must be implemented. Implementation of the Scheme must mitigate the impacts of stormwater run-off from and within the premises following the completion of construction activities. 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: Council Handbook* (available from the EPA).

Prepare and Implement Operations Environmental Management Plan

Prior to the commencement of mining operations, the proponent shall develop and subsequently implement an Operations Environmental Management Plan (OEMP). The OEMP shall include, but not necessarily be limited to:

- Noise management and monitoring;
- Cyanide management, monitoring and Contingency;
- Surface water management and monitoring;
- Groundwater management and monitoring;
- Air Quality management and monitoring;
- Biodiversity management and monitoring;
- Waste management and monitoring;
- Acid Mine Drainage management and monitoring;
- Soil management and monitoring.

MONITORING AND RECORDING CONDITIONS

Monitoring records

The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with the load calculation protocol must be recorded and retained as set out below.

All records required to be kept by the licence must be:

- in a legible form, or in a form that can readily be reduced to a legible form;
- kept for at least 4 years after the monitoring or event to which they relate took place; and
- produced in a legible form to any authorised officer of the EPA who asks to see them.

The following records must be kept in respect of any samples required to be collected:

- the date(s) on which the sample was taken;
- the time(s) at which the sample was collected;
- the point at which the sample was taken; and
- the name of the person who collected the sample.

Requirement to monitor concentration of pollutants discharged

For each monitoring/ discharge point or utilisation area specified below (by a point number), the applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The applicant must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

Water and Land – Discharge Points 1 and 2- Discharge to Tailings Storage Dam and Process Water Dam

Pollutant	Units of measure	Frequency	Sampling Method
Cyanide (Total)	Milligrams per litre	weekly	Total cyanide from water samples- CN-1 recovery by 20th Ed. APHA 4500-CN-1 method B3.j- Alternative method and analysis by 20th Ed. APHA 4500- CN-1 method E, D or F.
Cyanide (Weak Acid dissociable)	Milligrams per litre	Daily during discharge	WAD cyanide from water samples – CN-1 recovery by 20th Ed. APHA 4500-CN-1 method I- Alternative method and analysis by 20th Ed. APHA 4500- CN-1 method E, D or F.

Water and Land – Monitoring Point 3- Various Groundwater Monitoring Bores located around the TSF and Processing Plant and Office Area

Pollutant	Units of measure	Frequency	Sampling Method
pH	pH	Monthly	In Situ
Conductivity	µS/cm	Monthly	In Situ
Cyanide (Weak Acid dissociable)	Milligrams per litre	Every 3 months	Grab Sample
Alkalinity	Milligrams per litre	Every 3 months	Grab Sample
Antimony	Milligrams per litre	Every 3 months	Grab Sample
Arsenic	Milligrams per litre	Every 3 months	Grab Sample
Cadmium	Milligrams per litre	Every 3 months	Grab Sample
Calcium	Milligrams per litre	Every 3 months	Grab Sample
Chloride	Milligrams per litre	Every 3 months	Grab Sample
Copper	Milligrams per litre	Every 3 months	Grab Sample
Lead	Milligrams per litre	Every 3 months	Grab Sample
Magnesium	Milligrams per litre	Every 3 months	Grab Sample

Potassium	Milligrams per litre	Every 3 months	Grab Sample
Selenium	Milligrams per litre	Every 3 months	Grab Sample
Silver	Milligrams per litre	Every 3 months	Grab Sample
Sodium	Milligrams per litre	Every 3 months	Grab Sample
Standing Water Level	m (AHD)	Monthly	In Situ
Sulphate	Milligrams per litre	Every 3 months	Grab Sample
Total hardness	Milligrams per litre	Every 3 months	Grab Sample
Zinc	Milligrams per litre	Every 3 months	Grab Sample

Water and Land – Monitoring Point 4- Various Groundwater Monitoring Bores located around pits

Pollutant	Units of measure	Frequency	Sampling Method
pH	pH	Monthly	In Situ
Conductivity	µS/cm	Monthly	In Situ
Alkalinity	Milligrams per litre	Every 3 months	Grab Sample
Antimony	Milligrams per litre	Every 3 months	Grab Sample
Arsenic	Milligrams per litre	Every 3 months	Grab Sample
Cadmium	Milligrams per litre	Every 3 months	Grab Sample
Calcium	Milligrams per litre	Every 3 months	Grab Sample
Chloride	Milligrams per litre	Every 3 months	Grab Sample
Copper	Milligrams per litre	Every 3 months	Grab Sample
Lead	Milligrams per litre	Every 3 months	Grab Sample
Magnesium	Milligrams per litre	Every 3 months	Grab Sample
Potassium	Milligrams per litre	Every 3 months	Grab Sample

Selenium	Milligrams per litre	Every 3 months	Grab Sample
Silver	Milligrams per litre	Every 3 months	Grab Sample
Sodium	Milligrams per litre	Every 3 months	Grab Sample
Standing Water Level	m (AHD)	Monthly	In Situ
Sulphate	Milligrams per litre	Every 3 months	Grab Sample
Total hardness	Milligrams per litre	Every 3 months	Grab Sample
Zinc	Milligrams per litre	Every 3 months	Grab Sample

Air – Dust Monitoring Points 5 and 6- Dust gauges located at mine site boundary closest to "Manuka" and "Wirlong"

Pollutant	Units of measure	Frequency	Sampling Method
Particulates – deposited matter	g/m^2/month	Monthly	AM-19

Testing methods - concentration limits

Monitoring for the concentration of a pollutant emitted to the air required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with a relevant local calculation protocol must be done in accordance with:

- any methodology which is required by or under the POEO Act 1997 to be used for the testing of the concentration of the pollutant; or
- if no such requirement is imposed by or under the POEO Act 1997, any methodology which the general terms of approval or a condition of the licence or the protocol (as the case may be) requires to be used for that testing; or
- if no such requirement is imposed by or under the POEO Act 1997 or by the general terms of approval or a condition of the licence or the protocol (as the case may be), any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Monitoring for the concentration of a pollutant discharged to waters required by the condition mentioned above must be done in accordance with:

- the Approved Methods Publication; or
- if there is no methodology required by the Approved Methods Publication or by the general terms of approval or in the licence under the Protection of the Environment Operations Act 1997 in relation to the development or the relevant load calculation protocol, a method approved by the EPA in writing before any tests are conducted,
- unless otherwise expressly provided in the licence.

Requirement to Monitor Weather

For each monitoring 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 7- Weather Station Location on the Mine Site

Parameter	Units of measure	Frequency	Averaging Period	Sampling Method
Rainfall	mm	Continuous	24 hour	AM-4
Wind speed and direction	m/s & degrees	Continuous	15 minute	AM-2 and AM-4
Air temperature	Degrees (C)	Continuous	15 minute	AM-4
Sigma theta	Degrees	Continuous	15 minute	AM-2 and AM-4

REPORTING CONDITIONS

The applicant must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation worksheets with the return.

Reporting Fauna Deaths or Injury

The licensee must report any incident of death or injury (including bogging or miring) of fauna (avian and terrestrial) associated with the Tailings Impoundment or tailing runoff dam by telephoning the EPA's Pollution line on 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 on which the incident occurred.

GENERAL CONDITIONS

Signage

Each monitoring and discharge point must be clearly marked by a sign that indicates the EPA point identification number.

ATTACHMENT B

MANDATORY CONDITIONS FOR ALL EPA LICENCES

ADMINISTRATIVE CONDITIONS

OPERATING CONDITIONS

Activities must be carried out in a competent manner

Licensed activities must be carried out in a competent manner.

- This includes:
  - the processing, handling, movement and storage of materials and substances used to carry out the activity; and
  - the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

Maintenance of plant and equipment

- All plant and equipment installed at the premises or used in connection with the licensed activity:
  - must be maintained in a proper and efficient condition; and
  - must be operated in a proper and efficient manner.

MONITORING AND RECORDING CONDITIONS

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.

- The record must include details of the following:
  - the date and time of the complaint;
  - the method by which the complaint was made;
  - any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
  - the nature of the complaint;
  - the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
  - if no action was taken by the licensee, the reasons why no action was taken.

The record of a complaint must be kept for at least 4 years after the complaint was made.

The record must be produced to any authorised officer of the EPA who asks to see them.

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.

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.

This condition does not apply until 3 months after this condition takes effect.

REPORTING CONDITIONS

Annual Return documents

What documents must an Annual Return contain?

- The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
    - a Statement of Compliance; and
    - a Monitoring and Complaints Summary.

A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before 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.

Period covered by Annual Return

An Annual Return must be prepared in respect of each reporting, except as provided below

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.

- Where this licence is transferred from the licensee to a new licensee,
    - 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
    - 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.

Note: An application to transfer a licence must be made in the approved form for this purpose.

- 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
    - in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
    - in relation to the revocation of the licence – the date from which notice revoking the licence operates.

adline for Annual Return

e Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after end of each reporting period or in the case of a transferring licence not later than 60 days after the date the nsfer was granted (the 'due date').

Licensee must retain copy of Annual Return

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.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

(a) the licence holder; or

(b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

A person who has been given written approval to certify a Statement 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 this licence.

Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act

Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

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.

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.

- The request may require a report which includes any or all of the following information:
    - the cause, time and duration of the event;
    - the type, volume and concentration of every pollutant discharged as a result of the event;
    - 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; and
    - 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;
    - action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
    - details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;
    - any other relevant matters.

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.

GENERAL CONDITIONS

Copy of licence kept at the premises or on the vehicle or mobile plant

A copy of this licence must be kept at the premises or on the vehicle or mobile plant to which the licence applies.

The licence must be produced to any authorised officer of the EPA who asks to see it.

The licence must be available for inspection by any employee or agent of the licensee working at the premises or operating the vehicle or mobile plant.

STANDARD MINING LEASE CONDITIONS 2010

Content

Note: Exploration Reports (Geological and Geophysical)

Definition:

"Director-General" means the Director-General of the Department of Industry and Investment

MINING LEASE CONDITIONS 2010

1. 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) 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.

2. Environmental Harm

(a) The lease holder must implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of any activities under this lease.

(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.

Mining Operations Plan

(a) Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General.

(b) The MOP must:

(i) identify areas that will be disturbed by mining operations;

(ii) detail the staging of specific mining operations;

(iii) identify how the mine will be managed to allow mine closure;

(iv) identify how mining operations will be carried out 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) The leaseholder may apply to the Director-General to amend an approved MOP at any time.

(d) It is not a breach of this condition if:

(i) the operations constituting the breach were necessary to comply with a lawful order or direction given under the *Mining Act 1992*, the *Environmental Planning and Assessment Act 1979*, *Protection of the Environment Operations Act 1997*, *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.

(e) A MOP ceases to have effect 7 years after date of approval or other such period as identified by the Director-General.

4. Environment Management Report

(a) The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the Director-General.

(b) 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;

5. Environmental Incident Report

(a) 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.

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.

7. Rehabilitation

Any disturbance as a result of activities under this lease must be rehabilitated to the satisfaction of the Director-General.

9. Working Requirement

The lease holder must:

(a) ensure that at least **(number to be calculated *based on the rate of 1 worker per 25 ha of mining lease application area)** 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 **$ (amount *based on the (a) calculated at $17,500 per worker)** 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.

10. Blasting

(a) Ground Vibration

The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 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.

(b) Blast Overpressure

The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment, Climate Change and Water.

11. Safety

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.

12. Prevention of soil erosion and pollution

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.

13. Transmission lines, Communication lines and Pipelines

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.

14. Roads and Tracks

(a) The lease holder must pay to the relevant roads authority in control of the road or track the reasonable costs incurred by the roads authority in making good any damage to roads or tracks caused by operations carried out under this lease less any amount paid or payable from the Mine Subsidence Compensation Fund.

(b) During wet weather the use of any road or track must be restricted so as to prevent damage to the road or track.

(c) Existing access tracks should be used for all operations where reasonably practicable. New access tracks must be kept to a minimum and be positioned in order to minimise damage to the land, watercourses or vegetation.

(d) Temporary access tracks must be rehabilitated and revegetated to the satisfaction of the Director-General as soon as reasonably practicable after they are no longer required under this lease.

15. Trees and Vegetation

(a) The lease holder must not fell trees, strip bark or cut timber on any land subject of this lease without the consent of the landholder who is entitled to the use of the timber.

(b) The lease holder must contact Forests NSW and obtain any required permit, licence or approval before taking timber from any Crown land within the lease area.

Note: Any clearing not authorised under the Act must comply with the requirements of the Native Vegetation Act 2003. Any clearing or taking of timber on Crown land is subject to the requirements of the Forestry Act 1916.

16. Use of Mercury or Cyanide

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.

17. Resource Recovery

(a) Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, notice in writing to the lease holder may be given requiring the holder to recover such minerals.

(b) The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.

(c) The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.

18. Indemnity

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.

19. Security

A security in the sum of $ **(Based on self assessment and Departmental review -Refer to www.dpi.nsw.gov.au/__data/assets/pdf_file/0006/363516/ESG1-Rehabilitation-Cost-Estimate-Guidelines.PDF)** must be given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under this lease.

23. Suspension of Mining Operations

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.

24. Cooperation Agreement

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:

- access arrangements
- operational interaction procedures
- dispute resolution
- information exchange
- well location
- timing of drilling
- potential resource extraction conflicts and
- rehabilitation issues.

Note: *Exploration Reports (Geological and Geophysical)*

The lease holder must lodge reports to the satisfaction of the Director-General in accordance with section 163C of the Mining Act 1992 and in accordance with clause 57 of the Mining Regulation 2010.

Reports must be prepared in accordance with Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales (Department of Industry and Investment, 2010).

APPENDIX 3

COBAR SHIRE COUNCIL

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mail@cobar.nsw.gov.au

Gary Woodman, General Manager
PO Box 223 COBAR NSW 2835

NOTICE OF APPLICATION TO MODIFY DEVELOPMENT CONSENT
WONAWINTA SILVER PROJECT

Environmental Planning & Assessment Act 1979 Section 96 (2)

An application to modify Development Consent 2010/LD-00074REV01 granted for the development and operation of an open cut silver and lead mine on the "Manuka" property has been lodged with Cobar Shire Council by Cobar Consolidated Resources Limited.

The modification being sought is detailed below.

To obtain approval for:

- The use of blasting at the Wonawinta Mine Site.

Land to be developed:

- Lot 1 DP1164142; WLL 6238, "Manuka"

Written submissions concerning the proposed modification may be made to Council up until 4pm, 25 July 2012. During the submission period, any person may inspect the application and any accompanying information at the Council Administration Office and make extracts from or copies of them.

The application is also available on Council's website. www.cobar.nsw.gov.au

If the application to modify is approved, there is no right of appeal to the Court by an objector.

Appendix 4

LIST OF PERSONS WHO MADE SUBMISSIONS TO ORIGINAL DEVELOPMENT APPLICATION

- Cobar Aboriginal Lands Council
- Elaine Ohlsen
- Sparke Hilmore Lawyers
- Lachlan Catchment Management Authority
- Bogan Shire Council
- Shaun Barker, Department of Primary Industries
- Sharon Hawke, Assistant Western Lands Commissioner.

APPENDIX 5.

NSW GOVERNMENT | Office of Environment & Heritage

16 OCT 2012

With Compliments

Attn: Gary Ryman

Gary,

Correspondance provided to CCR on 12 October 2012 for Council records. Pls call me if you wish to discuss.

Regards Brad.

NSW EPA

16 OCT 2012

Our reference: DOC12/41696, LIC 11/10-04
Contact Brad Tanswell

The Director
Cobar Consolidated Resources Limited
Level 10, 420 St Kilda Road
PO Box 33312
MELBOURNE VIC 3004

Attention: Stephanie Reeves
CC: Cobar Shire Council

Dear Mr Shard,

Thank you for the letter received by the Environment Protection Authority (EPA) on 4 October 2012, and dated 25 September 2012 from Cobar Consolidated Resources Ltd (CCR) regarding additional amendments being sought for the application to modify development consent 2010/LD-007 and more specifically CCR's request for the EPA to amend conditions L.7.5 and L7.7 contained in the EPA's General Terms of Approval issued on 31 August 2012.

The EPA has considered the information provided in CCRs letter dated 25 September 2012 and would like to provide the following comments in relation to CCR's requested amendments to the proposed conditions of consent.

- The EPA does not consider that CCR has provided adequate justification for blasting on Sundays and public holidays. The EPA generally does not allow blasting to occur during these days unless adequate justification has been provided. This is consistent with the conditions of other mines throughout NSW. The EPA is amenable to amending the original condition to that outlined below.
- Adequate justification has been provided to demonstrate a maximum of three (3) blasts may be required over the duration of one (1) day.
- Regarding times of blasting throughout the day the EPA acknowledges that CCR may wish to blast outside hotter periods of the day during the hotter months of the year. The following proposed condition, which is consistent with conditions on other mines throughout NSW would allow this to happen.

The EPA has considered CCR's requested amendments and would be amenable to amending conditions L7.5 and L7.7 to read:

L7.5 Blasting operations in or on the premises must only be carried out between 0700 hours and 1800 hours, Monday to Saturday inclusive or as otherwise approved in writing by the EPA. Blasting in or on the premises must not take place on Sundays or Public Holidays without the prior approval of the EPA.

Condition L7.6 would remain as is to read:

The hours of operation for blasting operations specified in condition L7.5 may be varied if the EPA, having been given at least five working days to assess a written application and having

LD/2010-00074 73899
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PO Box 2111 Dubbo NSW 2830
Level 2, NSW Government Offices
48-52 Wingewarra Street Dubbo NSW
Tel: (02) 6883 5330 Fax: (02) 6884 8675
ABN 30 841 387 271
www.environment.nsw.gov.au

regard to the effect that the proposed variation would have on the amenity of the residents in the locality, gives written consent to the variation.

L7.7 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;

b) a maximum of 12 blasts per week, on average over a 12 month period;

Please review the EPA's proposed amendments and provide comment as to whether CCR accepts the proposed amended conditions.

If you have any questions, or wish to discuss this matter further please contact myself in the Dubbo EPA office by telephoning 02 6883 5330.

Yours sincerely,

12/10/12

BRAD TANSWELL
A/Head Pesticides, Operations and Planning
Environment Protection Authority

NSW EPA

Our reference: DOC 12/39017 , LIC 11/10-04
Contact Damien Rindfleish

The Director
Cobar Consolidated Resources Limited
Level 4, 448 St Kilda Road
MELBOURNE VIC 3004

COPY

Attention: Stephanie Reeves

Dear Mr Shard,

Thank you for your email and attached letter dated 11 September 2012 to Regional Operations Officer Damien Rindfleish of the Environment Protection Authority (EPA) regarding additional amendments being sought by Cobar Consolidated Resources (CCR) for the application to modify development consent 2010/LD-007 to allow blasting at the Wonawinta Silver mine site.

The EPA has reviewed the information provided by CCR for the desired changes to the General Terms of Agreement (GTA) specifically conditions L.7.5 and L7.7 which include multiple blasts seven days per week during daylight hours for extractive purposes at the Wonawinta Silver Mine in Cobar. The EPA requests further detailed information to consider the proposed amendments including:

- maximum number of blasts per day
- time of day between which blasts will occur
- period of time between blasts
- where blasts will occur (which pits)
- proposed Maximum Instantaneous Charge (MIC) for each blast
- strong justification for needing to conduct blasting in a way that is different to the standard blasting conditions.

If you have any questions, or wish to discuss this matter further please contact Damien Rindfleish in the Dubbo EPA office by telephoning 02 6883 5330.

Yours sincerely,

21/09/12

BRADLEY TANSWELL
A/Head Pesticides, Operations and Planning
Environment Protection Authority

PO Box 2111 Dubbo NSW 2830
Level 2, NSW Government Offices
48-52 Wingewarra Street Dubbo NSW
Tel: (02) 6883 5330 Fax: (02) 6884 8675
ABN 30 841 387 271
www.environment.nsw.gov.au

Environmental Planning and Assessment Act 1979

Part 4 Modification

Notice No. - 1508584

1508584

General Manager

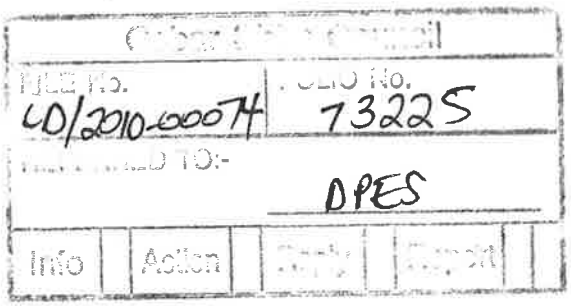
Cobar Shire Council

P.O. Box 223

COBAR NSW 2835

Attention: Gary Ryman

Notice Number	1508584
File Number	LIC11/10-05
Date	31-Aug-2012



Re: Application to Modify Development Consent 2010/LD-0007 for Wonawinta Silver Mine Cobar NSW.

Issued pursuant to Section 96(2) Environmental Planning and Assessment Act 1979

Cobar Shire Council has granted development consent DA 2010/LD-0007 under the *Environment Planning and Assessment Act 1979* to Cobar Consolidated Resources Limited (CCR) in respect of the Wonawinta Silver Mine Cobar. The Environment Protection Authority (EPA) has also granted an environment protection licence (EPL No. 20020) under the *Protection of the Environment Operations Act 1997* in respect of the Wonawinta Silver Mine Cobar.

I refer to the application by CCR to modify the existing Development Consent DA 2010/LD-0007 and the accompanying information provided for the application received by the Environment Protection Authority (EPA) on 11 July 2012. The modification of the consent is sought to authorise the blasting for extractive purposes at the Wonawinta Silver Mine Cobar NSW.

Additionally I refer to the additional information provided by CCR on 6 August 2012 in response to a request for additional information from the EPA on 26 July 2012.

The EPA has reviewed the information provided and is of the view that the addition of blasting for extractive purposes at the Wonawinta Silver Mine in Cobar NSW will also require a corresponding variation to EPL No. 20020. The applicant will need to apply separately to the EPA to vary this licence and cannot undertake blasting operatoins onsite until the licence has been varied. If the proponent makes the application, the EPA would likely vary the EPL No 20020, but subject to a number of additional licence conditions. The EPA cannot vary licence 20020 until consent for modification is approved by Cobar Shire Council.

The additional licence conditions likely to be imposed by the EPA are set out at attachment A. Should Cobar Shire Council decide to modify development consent DA 2010/LD-0007, it should check that the consent as modified (including any additional conditions of consent) will not be inconsistent with EPL No. 20020 and the proposed additional licence conditions at attachment A.

The EPA would like to advise Cobar Shire Council that every Protection of the Environment Operations Act 1997 (POEO) licence will contain a number of mandatory conditions. A copy of the mandatory conditions has been included

as a separate attachment as Attachment B.

The proposed licence conditions relate to the addition of blasting for extractive purposes at the Wonawinta Silver Mine Cobar NSW as proposed in the documents and information currently provided to EPA. In the event that the proposal is further modified either by the applicant prior to the granting of consent or as a result of the conditions proposed to be attached to the consent, the EPA requests that Cobar Shire Council consult with EPA about the changes before modifying the consent. This will enable EPA to determine whether its proposed licence conditions need to be modified in light of the changes.

If you have any questions, or wish to discuss this matter further please contact Damien Rindfleish on 02 6883 5330.

Yours sincerely

Bradley Tanswell

Acting Head of Pesticide Operation and Planning

Environment Protection Authority

(by Delegation)

Attachment A - Environmental Protection Licence Conditions

Administrative conditions

A1. Information supplied to the EPA

A1.1 Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

- The application for modification of consent 2010/LD-00074REV01submitted to Cobar Shire Council on 26 June 2012 and received by the EPA on 11 July 2012.
- Blast Management Plan CCR Wonawinta Mine Site and Appendix B titled Wonawinta Blast Design.
- Additional information received by the EPA on the 6 August 2012 titled "Response to Blasting Query" in response to the EPA Initiated Stop the Clock".

A2. Fit and Proper Person

A2.1 The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the Protection of the Environment Operations Act 1997, having regard to the matters in s.83 of that Act.

Limit conditions

L1. Pollution of waters

L.1.1 Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

L5. Waste

L5.1 The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997.

L5.2 This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the Protection of the Environment Operations Act 1997.

L4. Noise limits

L4.1 Noise generated at the premises must not exceed the noise limits presented in the table below. The locations referred to in the table are identified in the document, Cobar Consolidated Resources Limited – Wonawinta Silver Project – Environmental Impact Statement prepared by R. W. Corkery & Co. Pty Ltd dated 21 December 2010, or except as otherwise noted in the table below.

Location	Day LAeq (15 minute)	Evening LAeq (15 minute)	Night LAeq (15 minutes)	Night (LA1 1 minute)
Manuka - see note below	37	37	37	45
Wirilong - see note below	36	36	36	45
Any other residential premises not nominated above, at the time of the project approval	35	35	35	45

L.4.2 Note: As identified in 'Cobar Consolidated Resources Limited- Wonawinta Silver Project- Environmental Impact Statement prepared by R.W. Corkery and Co Pty Ltd dated 21 December 2010. Figure 1.2 Local Setting.

L4.3 For the purpose of condition L4.1;

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holiday's.
- Evening is defined as the period 6pm to 10pm.
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holiday's.

L4.4 The noise limits set out in condition L4.1 apply under all meteorological conditions except for any one of the following:

a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or

b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level;

c) Stability category G temperature inversion conditions.

L4.5 For the purposes of condition L4.4:

a) The meteorological data to be used for determining meteorological conditions is the data to be recorded by a meteorological station to be sited in accordance with the EPA Approved Methods AM-2 and AM-4; and

b) Temperature inversion conditions (stability category) shall be determined by sigma theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.

L4.6 For the purposes of determining the noise generated at the premises:

a) Class 1 or 2 noise monitoring equipment as defined by AS IEC61672.1-2004 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing, must be used;

b) The noise monitoring equipment used at a location must be placed in a position:

i. that is, where applicable:

- approximately on a location's property boundary that is closest to the premises, where any dwelling at the location is within 30 metres of the location's property boundary that is closest to the premises; or
- within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling at a location is situated more than 30 metres from the location's property boundary that is closest to the premises;

to determine compliance with the Leq(15 minute) noise limits in condition L4.1; or

ii. that is within 1 metre of a dwelling facade at a location to determine compliance with the LA1(1 minute) noise limits in condition L4.1; and

iii. that is:

- at the most affected point at a location where there is no dwelling at the location; or
- at the most affected point within an area at a location prescribed by conditions L4.6(b)(i) or L4.6(b)(ii).

L4.7 An exceedance will still occur where noise generated from the premises in excess of the appropriate limit specified in the condition L4.1 is detected:

- in an area at a location other than an area prescribed by conditions L4.6(b)(i) or L4.6(b)(ii); and/or
- at a point other than the most affected point at a location.

L4.8 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.

L7 Blasting

L7.1 The overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time and at any point within 30 metres of any non project related residential building or other noise sensitive location. 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.

L7.2 The overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) for more than five per cent of the total number of blasts over each reporting period at any time and at any point within 30 metres of any non-project related residential building or other noise sensitive location. 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.

L7.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time and at any point within 3.5 metres of any non project related residential building or other noise sensitive location. 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.

L7.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec for more than five per cent of the total number of blasts over each reporting period at any point within 3.5 metres of any non project related residential building or other noise sensitive location. 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.

L7.5 Blasting operations on the premises must only be carried out between the hours 9am to 5pm, Monday to Friday, inclusive or as otherwise approved in writing by the EPA.

L7.6 The hours of operation for blasting operations specified in condition L7.5 may be varied if the EPA, having been given at least five working days to assess a written application and having regard to the effect that the proposed variation would have on the amenity of the residents in the locality, gives written consent to the variation.

L7.7 Blasting at the premises is limited to 1 blast on each day on which blasting is permitted or as otherwise approved in writing by the EPA.

Note: Additional blasts are permitted where it is demonstrated to be necessary for safety reasons and the EPA and neighbours have been notified of the intended blast prior to the additional blast being fired.

Operating conditions

O2. Dust

O2.1 Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.

O2.2 Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.

O2.3 All dust control equipment must be operating at all times with the exception of shutdowns required for maintenance.

O7. Noise

Blast management protocol

O7.1 A Blasting/Vibration Management Protocol must be prepared in relation to the development and implemented. The protocol must include, but need not be limited to, the following matters:

compliance standards;

mitigation measures;

remedial action;

monitoring methods and program;

monitoring program for flyrock distribution*;

measures to protect underground utilities (eg: rising mains, subsurface telecommunication and electric cables) and livestock nearby;

notification of procedures for neighbours prior to detonation of each blast;

measures to ensure no damage by flyrock to people, property, livestock and powerlines.*

Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with the load calculation protocol must be recorded and retained as set out in conditions M1.2 and M1.3.

M1.2 All records required to be kept by the licence must be:

in a legible form, or in a form that can readily be reduced to a legible form;

kept for at least 4 years after the monitoring or event to which they relate took place; and

produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected:

the date(s) on which the sample was taken;

the time(s) at which the sample was collected;

the point at which the sample was taken; and

the name of the person who collected the sample.

Reporting conditions

R1.1 The applicant must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation worksheets with the return.

Attachment B – Mandatory Conditions for all EPA licences

Administrative conditions

Operating conditions

Activities must be carried out in a competent manner

Licensed activities must be carried out in a competent manner.

- This includes:

  the processing, handling, movement and storage of materials and substances used to carry out the activity; and

  the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

Maintenance of plant and equipment

- All plant and equipment installed at the premises or used in connection with the licensed activity:

  must be maintained in a proper and efficient condition; and

  must be operated in a proper and efficient manner.

Monitoring and recording conditions

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.

- The record must include details of the following:

  the date and time of the complaint;

  the method by which the complaint was made;

  any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;

  the nature of the complaint;

  the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and

  if no action was taken by the licensee, the reasons why no action was taken.

The record of a complaint must be kept for at least 4 years after the complaint was made.

The record must be produced to any authorised officer of the EPA who asks to see them.

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.

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.

This condition does not apply until 3 months after this condition takes effect.

Reporting conditions

Annual Return documents

What documents must an Annual Return contain?

- The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

  a Statement of Compliance; and

  a Monitoring and Complaints Summary.

A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before 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.

Period covered by Annual Return

An Annual Return must be prepared in respect of each reporting, except as provided below

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.

- Where this licence is transferred from the licensee to a new licensee,

  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

  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.

Note: An application to transfer a licence must be made in the approved form for this purpose.

- 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

  in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or

in relation to the revocation of the licence – the date from which notice revoking the licence operates.

Deadline for Annual Return

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').

Notification where actual load can not be calculated

(Licences with assessable pollutants)
Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date.

- The notification must specify:

  the assessable pollutants for which the actual load could not be calculated; and

  the relevant circumstances that were beyond the control of the licensee.

Licensee must retain copy of Annual Return

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.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

(a) the licence holder; or

(b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

A person who has been given written approval to certify a Statement 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 this licence.

Notification of environmental harm

Note: The licensee or its employees must notify the EPA 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

Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

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.

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.

- The request may require a report which includes any or all of the following information:

  the cause, time and duration of the event;

  the type, volume and concentration of every pollutant discharged as a result of the event;

  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; and

  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;

  action taken by the licensee in relation to the event, including any follow-up contact with any complainants;

  (details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;

  (any other relevant matters.

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.

General conditions

Copy of licence kept at the premises or on the vehicle or mobile plant

A copy of this licence must be kept at the premises or on the vehicle or mobile plant to which the licence applies.

The licence must be produced to any authorised officer of the EPA who asks to see it.

The licence must be available for inspection by any employee or agent of the licensee working at the premises or operating the vehicle or mobile plant.

Department of Primary Industries
Office of Water

- 7 AUG 2012

Contact Tim Baker
Phone 02 6841 7403
Mobile 0428 162 097
Fax 02 6884 0096
Email Tim.Baker@water.nsw.gov.au

Our ref ER20927
Your ref 2010/LD-00074REV01.Pt8 GJR:KAB

Cobar Shire Council
PO Box 223
COBAR NSW 2835

Attention: Garry Ryman

Dear Mr Ryman

Wonawinta Silver Mine - Application to Modify Development Consent 2010/LD-00074REV01 under s96 (2) of the Environmental Planning and Assessment Act 1979

I refer to your letter dated 10th July 2012 requesting comments from the NSW Office of Water on the proposed modification to the Wonawinta Silver Mine development consent.

The Office of Water appreciates the opportunity to comment and has reviewed the documentation in support of the application. Based on this review the Office of Water is of the understanding that the modification application is restricted to the use of blasting at the Wonawinta Mine site and this is to be carried out in accordance with a Blast Management Plan.

The Office of Water has no issues or further comment for the modification proposal.

Should you have any further queries in relation to this submission please do not hesitate to contact Tim Baker, Senior Planning and Assessment Coordinator on (02) 6841 7403 at the Dubbo office.

Yours sincerely

m. Mignanelli

Mark Mignanelli
Manager Major Projects, Mines and Assessment
1 August 2012

Cobar Shire Council
FILE No. LO/2010-00074 FOLIO No. 12783
REFERRED TO:- OPES
Info | Action | Reply | Report

Transport
Roads & Maritime
Services

SF2012/013702/1; WST10/00007/05

General Manager
Cobar Shire Council
PO Box 223
COBAR NSW 2835

Dear Sir

Lot 1 DP1164142 – "Manuka" Kidman Way (MR410), Cobar
Application to modify development consent for Wonawinta Mine Site

Thank you for your email received 10 July 2012 referring Development Consent 2010/LD00074REV01 to Roads and Maritime Services (RMS) for comments.

RMS does not object to the proposed modification and provides Council with the following comments:

- The proposed blasting and subsequent vibration would not have a significant impact on RMS assets, including the Kidman Way (MR410).
- The proponent is to obtain a Road Occupancy Licence from RMS if the Kidman Way (MR410) would be closed during blasting. This can be obtained by contacting Mr Paul Maloney on (02) 6861 1686. Submission of a traffic control plan is required as part of this licence.

Please forward a copy of Council's determination on the development application to RMS at the same time it is sent to the applicant.

Should you require any further information please contact Dave White (02) 6861 1479.

Yours faithfully

Tony Hendry
Road Safety & Traffic Manager
Western

26 JUL 2012

FILE No. LD2010-00074 72643
OPES

NSW EPA

Our reference: DOC12/29669 , FIL 07/6913-02
Contact Damien Rindfleish

The General Manager
Cobar Shire Council
P.O. Box 233
COBAR NSW 2835

Attention: Gary Ryman,

Dear Mr Woodman,

I refer to the letter dated 10 July 2012 from Cobar Shire Council (Council) and Application for Modification of Consent and supporting documents, received by the Environment Protection Authority (EPA) on 12 July 2012 in regards to the Wonawinta Silver Project.

At this stage the EPA is not prepared to issue its General Terms of Approval (GTA) for the "Wonawinta Silver Mine" because the information provided is insufficient for the EPA to properly assess the impacts of the proposal. For the EPA to consider issuing GTAs, additional information is required. In summary, the main information required by the EPA relates to the following.

Blasting
The information in the Wonawinta Blast design (Appendix B) estimated the Maximum Instantaneous Charge (MIC) to be used is 6.90kg. The EPA notes that 6.9kg is a fairly low MIC and request that the proponent confirms that blasting is economical with an MIC that low. Further information and clarification is required.

In light of the above request for additional information, the EPA notes that the deemed refusal clock will be stopped from the receipt of this letter until the information is provided. The EPA also requests that Cobar Shire Council contact Damien Rindfleish of the EPA once the information has been received so that arrangements can be made regarding forwarding the information in a timely manner.

Please note you are welcome to fax additional information to the Dubbo office on 02 6884 8675. Should you have any enquiries regarding this matter, please contact Damien Rindfleish at the Dubbo Office of the EPA by telephoning (02) 6883 5330.

Yours sincerely

26/7/12

BRADLEY TANSWELL
A/Head Pesticides, Operations and Planning
Environment Protection Authority

FILE No. LO/2010-00074 72644
DPES

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www.environment.nsw.gov.au

Karen Bishop

From: Vince Fallico [Vince.Fallico@dwe.nsw.gov.au]
Sent: Wednesday, 11 July 2012 11:50 AM
To: Karen Bishop
Cc: catherine.stokes@industry.nsw.gov.au
Subject: RE: Wonawinta Silver Mine - Manuka Station, Cobar

Hi Karen

Thank you for Council's notification of Wonawinta's proposal to modify its development consent to permit the use of blasting at the mine site.

Subject to the approval of the proposed modification, apart from requiring the proponent to modify its mining operations plan to incorporate any approved modifications, Trade and Investment- Resources and Energy have no additional requirements or recommended conditions of approval. NSW EPA has jurisdiction regarding the use of blasting,

Should Council wish to discuss any identified impact that the proposed modification may have on existing terms of approval, Catherine Stokes, Team Leader Environment Broken Hill may be contact on telephone (08) 8088 9334 or email: catherine.stokes@industry.nsw.gov.au

Regards

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From: Karen Bishop [mailto:karen.bishop@cobar.nsw.gov.au]
Sent: Tuesday, 10 July 2012 4:16 PM
To: Vince Fallico
Subject: Wonawinta Silver Mine - Manuka Station, Cobar

Hi Vince

Please find attached, correspondence from Garry Ryman - Director of Planning & Environmental Services at Cobar Shire Council, along with development application modification and relevant documents for the subject property for your comment.

Regards

Karen Bishop | ***Executive Assistant***
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