BALD HILL QUARRY

Holbrook Quarry Review of Environmental Impacts for Modification

May 2025

Table of Contents

1. INTRODUCTION 4

1.1 SCOPE 4
1.2 BACKGROUND 4
1.3 SITE LOCATION 6
1.4 THE PROPONENT 6
1.5 MODIFICATIONS BEING APPLIED FOR 8
1.6 NEED FOR THE MODIFICATION 8
1.7 CONSENT COMPLIANCE 9

2. PROPOSAL DESCRIPTION 17

2.1 THE PROPOSAL 17

3. LEGISLATIVE FRAMEWORK 17

3.1 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 17
3.1.1 Environmental Planning Instruments 18
3.1.2 Greater Hume Development Control Plan 19
3.2 RELATED NSW LEGISLATION 19
3.2.1 Protection of the Environment and Operation Act 1997 19
3.3 COMMONWEALTH LEGISLATION 19
3.3.1 Environment Protection and Biodiversity Conservation Act 1999 19

4. CONSIDERATION OF ENVIRONMENTAL EFFECTS 20

4.1 AIR QUALITY 20
4.2 WATER MANAGEMENT 20
4.3 NOISE 20
4.4 BLASTING 21
4.5 GROUNDWATER 21
4.6 PIT PLANNING 21
4.7 TRAFFIC ASSESSMENT 24
4.8 FLORA AND FAUNA 27

5. ENVIRONMENTAL MANAGEMENT 29

5.1 ENVIRONMENTAL MANAGEMENT AND MONITORING 29

6. CONCLUSION 29

7. REFERENCES 29

Figure Index

Figure 1: Location of Holbrook quarry 5
Figure 2: Location and Land Description 7
Figure 3 – Current site layout 23
Figure 4 – Current intersection 26

Table Index

Table 1: Location and land description 6
Table 2: Compliance status of current consent 9
Table 3 - Tonnes per year 22
Table 4 – average outbound truck for 6 month period 25

Appendix

Appendix A – Dilapidation Study
Appendix B – Noise Compliance Assessment
Appendix C – Current Mine Plan
Appendix D – Intersection Report

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1. Introduction

1.1 Scope

This Review of Environmental Impacts has been prepared to accompany an application under Section 4.55 (1A) of *the Environmental Planning and Assessment Act 1979* (EPA Act) to make a minor amendment to the Development consent (DA 10.2023.94.2).

Bald Hill Quarry Pty Ltd is seeking approval to modify the current development consent to:

1. Allow for the continued operation of the Holbrook Quarry for a further period of 20 years beyond the current approved limit of November 2027, and
2. Increase the current peak annual 200,000 tonnes extracted, processed, and despatched from the site to 300,000 tonnes.

The conclusion drawn from this review is that the modifications requested here would bring no significant change to the overall impact of the development as described in the DA263-06/07 (modified May 2025 by No. 10.2023.94.2) and accompanying EIS. The peak annual tonnage of 300,000 tonnes applied for remains well below the previously modified permitted annual output of 400,000 tonnes, with the original EIS conditions of consent complied with and current.

The modifications are within the scope described and examined in the original 2007 DA and 2011 DA modified approval documents, with the site and continuing operation remaining substantially the same development as previously approved.

1.2 Background

Development consent for a quarry operation at the site located at 'Cromer' 10721 Hume Highway Holbrook NSW 2644 was first granted in 1985. The initial approval allowed extraction of up to 25,000 tonnes of material per annum, however only 3,400 tonnes per annum was extracted until 2006.

Bald Hill Quarry Pty Ltd (BHQ), a regional quarry operator gained access to the site and lodged a Development Application (DA with a supporting Environmental Impact Statement EIS) with the Greater Hume Shire Council in June 2007. The operations proposed comprised an open cut pit, crushing, screening and transporting material offsite providing the local area with aggregates and road base material.

Development Consent for the quarry operation was granted in November 2007 (DA263-06/07) approving a hard rock quarry with an annual extraction limit of 200,000 tonnes.

In response to increased demand for supply of quarry materials due to infrastructure projects, in 2011 both a DA and accompanying EIS were submitted seeking modification of the original 2007 consent to increase the annual peak extraction limit to 400,000 tonnes. Modification No. DA 6-11/12-s96 was granted Dec 2011 allowing the extraction of 200,000 tonnes per annum (tpa) with peak demands of up to 400,000 tpa, for a period not exceeding 3 years. Amendments to the Conditions of Consent were added to accommodate the increased annual extraction.

BHQ currently operates the Holbrook quarry under Environmental Protection Licence (EPL) number 12797, last updated in June 2020.

FIGURE 1: LOCATION OF HOLBROOK QUARRY

1.3 Site location

The land subject to DA263-06/07 (modified May 2025 by No. 10.2023.94.2) and known as the property 'Cromer', is located within the Greater Hume Local Government Area (LGA) being approximately 5km northeast of Holbrook in the Hume Region, NSW (Figure 2 and Figure 3).

The approved quarry operations are located on the single lot described in table 1:

TABLE 1: LOCATION AND LAND DESCRIPTION

Land Description	Zoning	Owner	Components
Lot 7 DP1129439 Local Government Area (LGA) of Greater Hume Shire	RU1 Primary Production	Daniel Lubke	Site Access Road Bald Hill Quarry Processing Plant and Stockpile area Haul Road Pit

1.4 The proponent

The proponent Bald Hill Quarry Pty Ltd (ACN 19 003 764 725) operates a number of Quarries and a regional landfill in South-Western NSW. BHQ is a private company headquartered at Jugiong NSW and has operated quarries in the South West Slopes region since 1989. BHQ has two directors, Mr John Wilkinson has tertiary qualifications in geology and geophysics and Mr Tony Willsallen has tertiary qualifications in agricultural economics.

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FIGURE 2: LOCATION AND LAND DESCRIPTION

1.5 Modifications being applied for

BHQ is seeking to modify the current development consent DA263-06/07 (modified May 2025 by No. 10.2023.94.2). The modification seeks to gain approval for the following:

a. To extend the existing quarry operations after November 2027 for a further 20 years.

b. To Increase peak annual tonnes extracted and sold from 200,000 tpa to 300,000 tpa.

This application for modification is specific to the Holbrook quarry.

1.6 Need for the modification

Bald Hill Holbrook operation is a strategically located supplier providing aggregate, road base and construction materials to private, local and state government bodies, as well as civil construction companies and major infrastructure projects (eg. Federal and State highway projects).

The need for this proposal/modification is outlined in the following points:

a. Annual sales have progressively increased to the point where 203,000t were sold in 2024 financial year reflecting the changing and growing market now available to the Holbrook quarry. This was achieved at a time when no significant infrastructure projects were affecting demand, confirming the growth in underlying domestic demand for quarry materials generated within the local economy. This is expected to fluctuate in line with the normal 'ups and downs' of private investment, Local, State and Federal Government funding.

   It is on top of this 'local' growth that any major projects, such as the Hume Link West Power Transmission Line Construction or the Inland Rail project will sit. BHQ projections show that potential combined quarry sales going forward could range from 150,000 - 210,000 tonnes with annual peaks of approx. 280,000 in the next 10 years. Projections beyond this are less certain, however the long term trend suggests a steady growth of the base line demand for quarry products.

Five years of extraction data is provided in Table 3. This demonstrates the development has remained under the minimum extraction limit for a number of years until 2024.

b. To continue to supply quality material locally to state significant developments projects such as windfarms and solar farms;

c. To ensure BHQ operations are compliant;

d. To continue the advantage of an approved extractive industry already on an existing site;

e. Supply a demonstrated demand for material in the region;

f. Continue in the strategic role as a convenient supply source to towns and the surrounding area with construction materials;

g. The consequence of continuing with the current activity outweigh the alternative; and

h. Will maintain local employment opportunities.

1.7 Consent Compliance

Table 2 lists the current conditions of consent derived from DA263-06/07 (modified May 2025 by No. 10.2023.94.2). A statement of the Compliance Status for each of the conditions is declared.

TABLE 2: COMPLIANCE STATUS OF CURRENT CONSENT

Condition Number	Requirement	Compliance Status
Admin		
1	Except as expressly provided by the following conditions, works and activities must be carried out in accordance with the details contained in: (a) the development application 263-06/07 submitted to the consent authority (Greater Hume Shire Council) on 25 June 2007; (b) the Environmental Impact Statement titled Lubke Quarry Environmental Impact Statement dated June 2007 (including proposed environmental impact mitigation measures, monitoring and reporting requirements summarised in Section 3.15); (c) all additional documents and information supplied to the consent authority in relation to the development; and (d) the Planning Report submitted with modification application 6-11/12 submitted to the consent authority (Greater Hume Shire Council) on 7 October 2011. (e) the Planning Report submitted with modification application 10.2011.6.3 submitted to the consent authority (Greater Hume Shire Council) on 27 November 2019, and (f) Subsequent modification to Development Application No: 10.2023.94.1 and 10.2023.94.2.	Noted
2	This consent lapses 20 years from the date from which it operates.	Expires in November 2027. Request to extend
3	The applicant shall not extract, process or transport more than 200,000 tonnes of material a year from the quarry site. (a) Notwithstanding Condition 3, for a period not exceeding three (3) years from the date the consent is modified, the extraction of up to 400,000 tonnes of material per annum is permitted. (b) Prior to commencing the increased rate of extraction, the applicant shall provide the consent authority with an audit of all existing consent conditions for compliance. The applicant must demonstrate compliance with all conditions. The increased rate of extraction must not commence until all existing consent conditions have been complied with.	Compliant has demonstrated in table 3 and request to increase tonnes to 300 000 tpa.
4	This consent shall expire if the development hereby permitted is not commenced within five (5) years of the date of consent.	Noted
5	Within one month of the date of consent the applicant shall surrender the current development consent applicable to the quarry (Ref: development application No. 10/85). Note: The surrender of consent should be undertaken in accordance with Regulation 97(1) of the Environmental Planning and Assessment Regulation 1980.	Completed

Condition Number	Requirement	Compliance Status
6	The applicant shall comply with any reasonable request from the consent authority arising from matters contained in: • the endorsed Environmental Impact Statement; • any reports, plans or correspondence that are submitted to the consent authority in accordance with this development consent; and • the implementation of any actions or measures contained in these reports, plans or correspondence.	BHQ has complied with all plans and implemented actions.
7	For the residence of Paul and Narelle Emerson the applicant is to have a dilapidation study performed by a suitably qualified person prior to the three years of increased extraction. At the completion of this time another dilapidation study is to be performed and any damage to the residence that can be attributed to the increased extraction from Cromer quarry is to be rectified to correspond with the original condition of the dwelling prior to the increased extraction rate.	This condition was complied with and the effects monitored by the dilapidation report were shown to be un-related to any quarrying activities. (Appendix A) The residents Paul and Narelle Emerson have since sold the property 'Cookook" and left the district in 2019. There have been no complaints received from the new owners or other properties.
Surface water		
8	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 and in connection with the carrying out of the development.	Noted
9	If a discharge point is proposed for the sedimentation system, the concentration of any pollutant discharged at that point must not exceed the concentration limit specified in the EPA licence for that pollutant in the table.	Noted. There are no discharge points.
10	Monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area required by above conditions 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 provided in the EPA licence.	Compliant - there is no monitoring requirements in the EPL
11	Within 3 months of the date of consent a Soil and Water Management Plan (SWMP) must be prepared, approved by the consent authority and implemented. The SWMP must describe the measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during extraction activities. The SWMP should be prepared in accordance with the requirements for such plans outlined in Managing Urban Stormwater: Soils and Construction (available from the Department of Housing).	Submitted in July 2011 and approved.

Condition Number	Requirement	Compliance Status
12	Within 3 months of the date of consent a Stormwater Management Scheme (SMS) must be prepared, approved by the consent authority and implemented. Implementation of the SMS must mitigate the impacts of stormwater run-off from and within the premises following the cessation of extraction for the Hume Highway project. The scheme should be consistent with guidance contained in Managing Urban Stormwater: Council Handbook (available from the EPA).	Submitted in July 2011 and approved.
Groundwater		
13	If groundwater is intercepted at any stage of the project, the operation must cease immediately and the Department of Water and Energy and the consent authority be contacted.	Noted and never been intercepted
14	The depth of extraction is not to exceed any point less than two (2) metres from the standing water level of the shallowest aquifer.	Noted.
15	Within 3 months of the date of consent a Groundwater Monitoring Program must be prepared, approved by the consent authority and implemented to monitor fluctuations in groundwater levels beneath the extraction pit.	Submitted in July 2011 and approved.
16	A detailed progressive rehabilitation plan is to be prepared to the consent authority's satisfaction that details the agreed short and long term rehabilitation objectives of the site, a survey plan of the final land form and the information detailed in section 7 of the EIS Guidelines for Extractive Industries-Quarries prepared by the former DUAP.	Rehabilitation plan supplied and subsequently amended in 2022
Noise		
17	Noise emissions from the premises must not exceed the criterion set out in the New South Wales Industrial Noise Policy at the nearest and potentially most affected noise sensitive receptors. Noise is to be measured in accordance with this policy if required to determine compliance with this condition.	Compliant. Last noise assessment and report completed in 2020. No Noise complaints received.
18	All practical measures must be used to silence the plant and equipment used consistent with the best available technology that is economically achievable.	The plant and equipment have daily prestart checks and regular maintenance.
19	The applicant must use natural barriers and construct acoustic barriers close to jaw crushing equipment which fully prevents line of site to the three closest properties to the west and southwest. The barrier must comply with the requirements of section 7.1 of the Noise Impact Assessment Report nss21664-final.	Compliant natural barriers are in place and no noise complaints have been received.
20	The noise emissions limits apply for prevailing meteorological conditions (winds up to 3m/s), except under conditions of temperature inversions. Noise impacts that may be enhanced by temperature inversions must be addressed by: • documenting noise complaints received to identify any higher level of impacts or patterns of temperature inversions; and • where levels of noise complaints indicate a higher level of impact then actions to quantify and ameliorate any enhance impacts under temperature inversions conditions should be developed and implemented.	Compliant. Last noise assessment and report completed in 2020. No Noise complaints received.

Condition Number	Requirement	Compliance Status
21	The proponent shall complete and submit to DECC a noise compliance assessment within three months of commencement of normal operations.	Submitted April 2009 (Appendix B)
22	The proponent shall develop and implement a Noise Management Plan that has a primary aim, but is not necessarily limited to, the ongoing evaluation and application of best practice and all feasible and practicable means to reduce noise emissions so as not exceed the limits outlined in the Industrial Noise Policy.	Submitted in July 2011 and approved
Setback		
23	In accordance with Regulation 32 of the Environmental Planning and Assessment Model Provisions 1980, no works shall be undertaken within 400 metres of the Hume Highway, including part of the area nominated as a 'temporary stockpile'.	Not Compliant but recently approved by application to council
Hours of operation		
24	All work on site associated with the extraction, processing and transport of material must only be conducted between 6am and 6pm Monday to Friday and 7am to 6pm Saturday excluding public holidays.	Compliant
25	Activities at the site, other than extraction, processing and transport of material, may only be carried out between 7am and 1 0pm Monday to Friday and 7am to 6pm Saturday excluding public holidays.	Noted
26	The delivery of material outside the specified hours of operation may be undertaken if that delivery is required by police or other authorities for safety reasons; and/or the operation or personnel or equipment are endangered. In such circumstances, prior notification is provided to the EPA, consent authority and affected residents as soon as possible, or within a reasonable period in the case of an emergency.	Noted
27	The hours of operation may be varied with written consent if the EPA and the consent authority are satisfied that the amenity of the residents in the locality will not be adversely affected.	Noted
Blasting		
28	The overpressure level from blasting operations on the premises must not: • exceed 115dB (Lin Peak) for more than 5% of the total number of blasts over a period of 12 months; and • exceed I 20dB (Lin Peak) at any time, The airblast overpressure values stated above apply when the measurements are performed with equipment having a lower cut-off frequency of 2Hz or less. If the instrumentation has a higher cut off frequency then a correction of 5dB should be added to the measure value. Equipment with a lower cut-off frequency exceeding 1 0Hz should not be used for the purpose of measuring airblast overpressure.	Compliant and each bast is measured at the closest residence every blast.
28a	Where winds are significant (i.e. over 18km/hour and in the south, west or southwest direction) the charge weight is to be restricted to 30kg from winds between 3 m/s and 5 m/s(18km/hr)	Compliant
28b	Blasting is not to take place when winds in the south or southwest directions exceed 5 m/sec.	Compliant

Condition Number	Requirement	Compliance Status
29	Ground vibration peak particle velocity from the blasting operations at the premises must not: • exceed 5mm/s for more than 5% of the total number of blasts over a period of 12 months; and • exceed 1 0mm/s at any time, when measured at any point within 1 metre of affected residential boundary or other noise sensitive location.	Compliant
30	Blasting operations on the premises may only take place between 10am and 3pm Monday to Friday and not during periods of inversions.	Compliant
31	The hours of operation for blasting operations may be varied if the EPA and the consent authority, 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.	Compliant
32	Blasting at the site is limited to one (1) blast each day on which blasting is permitted. Note: The restrictions on times and frequency of blasting referred to above ore based on the ANZEC guidelines - "Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration" September 1990.	Compliant
33	A Blasting and vibration Management Protocol must be prepared relation to the development, submitted to the consent authority for approval 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 (e.g.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 power lines.	An original Blasting and vibration management plan was developed in 2011. An updated blast and explosives control plan was developed in 2021.
34	For the purpose of blast monitoring, the ground vibration or the overpressure must be measured at: • the residential boundary; or • 30 metres from residences in rural situations where the boundary is more than 30 metres from residences. • Airblast overpressure levels should not be measured within 3.5 metres of any building. Ground vibration levels should not be measured with the longest dimension of the foundations of a building or structure away from such building or structure.	Compliant
Dust		
35	Activities occurring at the site must be carried out in a manner that will minimise the emissions of dust off-site.	Compliant and mitigations outlined in the dust management plan.

Condition Number	Requirement	Compliance Status
36	All areas of the site must be maintained in a condition that minimises the generation of dust. (a) A dust gauge is to be installed at the "Cromer" property (on Lot 7 DP 1129439) during the temporary three year period to monitor depositional dust levels. (b) The measured dust position levels must be analysed on a monthly basis to demonstrate compliance with OEH objectives. (c) The dust deposition gauges should be in place and activated before the start of the temporary expanded quarry operations. The following Australian Standards should be observed when undertaking the proposed monitoring: • AS 2922-1987 -Ambient Air-Guide for Siting of Sampling Units; and • AS 3580.10.1-1991 - Particulates - Deposited Matter (Gravimetric Method) (d) The following dust management practices must be undertaken: Implementation of dust emission control measures including: watering dry surfaces, covering loads on outbound haul truck, seed long-term stockpiles and removing of mud and dirt tracked on to road surfaces; Monitoring and recording the effectiveness of measures implemented to control dust emissions; Progressively rehabilitating disturbed areas as soon as earthworks are completed or where earthworks on disturbed areas are dormant for greater than 8 weeks; Limit vehicle and machinery access to designated work areas; and Undertake progressive rehabilitation of the quarry work area .	Monitoring was undertaken from 2007 to 2019.
37	Trucks entering and leaving the site that are carrying loads must have these loads completely covered at all times, except during loading and unloading.	Compliant
Traffic		
38	The access driveway from the Hume Highway shall be sealed to a minimum width of 6m and the seal coverage maintained for at least 50m from the edge of seal of the carriageway of the Hume Highway. This is required to prevent deterioration of the road shoulder and the tracking of gravel onto the roadway. (a) The developer is responsible for all works necessary due to the proposed development and as required by the various public utility authorities and/or their agents. It should be noted that relocation of any utility service within the road reserve will require Roads and Maritime Services (RMS) concurrence under section 138 of the Roads Act 1993 prior to commencement to works. (b) Prior to works commencing within the road reserve of a Classified Road the applicant must apply for and obtain approval under Section 138 of the Roads Act 1993 from the road authority (Council) and a Road occupancy licence from Roads and Maritime Services (RMS). (c) Any work associated with the proposed development shall be at no cost to Roads and Maritime Services (RMS).	Compliant

Condition Number	Requirement	Compliance Status
39	Existing entrance turnout and access road is to be sealed for a minimum length of 50 m from the existing pavement on the Hume Highway to prevent any dust near the highway. This also prevents deterioration of the road shoulder and the tracking of loose materials on to the highway.	Compliant
40	The swept path of the largest vehicle entering/exiting the subject site and manoeuvrability through the site is to be in accordance with current Australian Standards and to the consent authority's satisfaction.	Compliant
41	Gates within the fence line are to be set back a minimum of 30 metres from the road shoulder so as to allow storage of long vehicles likely to service the site.	Compliant
42	If the proposed expansion of the quarry takes place prior to the duplication of the Hume Highway an Auxiliary Right Turn (AUR) treatment is to be constructed at the junction of access location and Hume Highway in accordance with the RTA's Road Design Guide for the prevailing speed limit.	Compliant
43	Detail design of an Auxiliary Right Turn (AUR) treatment is to be sent to the RTA for approval prior to construction.	Compliant
44	The required Safe Intersection Sight Distance (SISD) from the egress location on Hume Highway is to be in accordance with the RTA's Road Design Guide for the prevailing speed limit (i.e. 225m for 100km/hr speed zone).	Compliant
45	As recommended in the submitted traffic report, the three trees on each side of the existing entrance are to be removed prior to the formal commencement of expanded quarry operation in order to improve the sight distance.	Compliant and completed
46	Any road and/or traffic works associated with the proposed development shall be at no cost to the RT A	Compliant
Threatened species		
47	The applicant must within 12 months of the date of consent undertake tree planting in the vicinity of the quarry access to offset the impact of proposed clearing. Ten trees must be planted for every tree [living or dead) removed. Locally occurring tree species must be used. Tree planting must occur outside the future Hume Highway Road Reserve. Tree planting sites must be chosen so as to improve connectivity for Squirrel Gliders and to complement tree planting to be undertaken by the Northern Hume Alliance in the locality. The applicant is to advise the consent authority when such planting has been completed.	Compliant and see progressive imagery below.
48	Areas supporting trees west of the haul road/current work area and located adjacent to the southern offset area must not be cleared or impacted by the development. These areas must be incorporated into the southern offset area.	Compliant
49	Within 3 months of the date of consent the applicant must provide for the in perpetuity management for conservation of offset areas via the placement of appropriate restrictions and positive covenants on the land under the Conveyancing Act 1919 or the approval of a Property Vegetation Plan under the Native Vegetation Act 2003.	Compliant

Condition Number	Requirement	Compliance Status
	Such mechanisms must be approved by the consent authority prior to implementation.	
50	Within 3 months of the date of consent a revised Rehabilitation Native Vegetation Offset Replanting Plan (the Plan) must be submitted to the consent authority for approval. The consent authority will only approve the Plan if, following consultation with the Department of Environment and Climate Change [DECC), it is satisfied the Plan will improve environmental outcomes such that impacts of the development are adequately offset. The revised Plan must include the requirement for additional revegetation associated with mitigating impacts on Squirrel Gliders associated with the Hume Highway access. The Plan is to be implemented within 3 months of approval.	Submitted in August 2011 and approved
51	Clearing of the development site must be staged, with only the minimum amount of clearing necessary to allow for the safe working of each bench undertaken immediately prior to the quarrying of that bench.	Compliant
Monitoring		
52	The results of any monitoring required to be conducted by 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 the following two conditions.	Noted.
53	All records required to be kept by the licence must be: • in a legible form, or in a form that can be reduced to legible form; • kept for at least four (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 or the consent authority who asks to see them.	Compliant
54	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.	Compliant
reporting		
55	The applicant must provide an annual return to the EPA in relation to the development as required by any licence under 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 that applicant will be required to submit load-based fee calculation worksheets with the return.	Compliant

Condition Number	Requirement	Compliance Status
56	A copy of the annual return to the EPA is to be provided to the consent authority.	This hasn't been done in the past. Noted and shall ensure compliance

2. Proposal description

2.1 The proposal

The proposed modification to DA263-06/07 (10.2023.94.2) requests the extraction amount of 200,000 referred to in the Expansion of Lubke Quarry EIS (2007) be altered to allow extraction of up to 300,000 tpa. The Traffic Impact Assessment in the 2007 EIS already assessed for the 200,000 tonnes prior to the intersection upgrade and single lane highway would be 50 total truck movement. The peak amount was modelled and assessed with a worst-case scenario of five times this during peak. The increased proposed peak extraction of 300,000tpa would still be within this limit of the truck movements as modelled in the EIS. Section 4.8 provides further details.

BHQ also requests an extension of consent for 20 years from November 2027. Section 4.7 provides further details.

3. Legislative framework

3.1 Environmental Planning and Assessment Act

BHQ Holbrook operation was approved under Part 4 of the EP&A Act on the 7 November 2007 and modified in December 2011, April 2022 and November 2019, August 2022 and May 2025. The approval requires the development to be undertaken in accordance with the conditions of consent and the approved plans and specifications described in the EIS and any submissions or documents provided as part of the project approval.

The consent refers to the current approved Expansion of Lubke Quarry EIS (2007) with amendments to the detail provided modifications and in this report required. A modification to DA263-06/07 (10.2023.94.2) under Section 4.55 is required to modify the detail relating to extraction limits, processed and transport of material per annum from site and extension of consent.

Section 4.55 of the EP&A Act contains three pathways for which a consent may be modified including:

- Section 4.55 (1) - modification involving minor error, misdescription or miscalculation
- Section 4.55 (1A) – modifications involving minimal environmental impacts
- Section 4.55 (2) – other modifications

Greater Hume Council have confirmed that the modification would be the appropriate approval pathway under Section 4.55 (1A) of the EP&A Act. Under this section, consent authority may modify the consent if it is satisfied that the development is substantially the same development.

The operation of the quarry remains predominantly in accordance with the development forming the basis of the consent. The modification involves an alteration which allows the operation to adjust to market demand with the development is considered to be substantially the same development as approved as part of the consent.

Section 4.15 of the EP&A Act outlines the matters that must be taken into consideration by a consent authority where applicable, when assessing a development application or modification to consent under Part 4 of the EP&A Act. Matter to be consider where relevant include:

(a) The provisions of:

(i) Any environmental planning instrument, and

(ii) Any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has been not approved) and

(iii) Any development control plan, and

(iv) Any planning agreement that has been entered into under Section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and

(v) The regulations (to the extent that they prescribe matters for the purpose of this paragraph),

(vi) Repealed

That apply to the land to which the development application related,

(b) The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impact in the locality,

(c) The suitability of the site for the development,

(d) Any submissions made in accordance with this Act or the regulations,

(e) The public interest.

This document has been prepared to address matters for consideration under Section 7.15 of the EP&A Act and the requirements of the EP&A Regulation.

3.1.1 Environmental Planning Instruments

Greater Hume Local Environmental Plan 2012

Under the Greater Hume LEP 2012, the proposed site is zoned as RU1 Primary Production. The objectives of the RU1 zoning are:

c. To encourage sustainable primary industry production by maintaining and enhancing the natural resource base

d. To encourage diversity in primary industry enterprises and systems appropriate for the area.

e. To minimise the fragmentation and alienation of resource lands.

f. To minimise conflict between land uses within zones and land uses with adjoining zones.

g. To maintain the rural landscape character of the land.

Extractive industries are permitted with consent with in the RU1 Primary Production land use zoning. The operation and modification request are considered to meet the objectives of the LEP.

3.1.2 Greater Hume Development Control Plan

Greater Hume Council Development Control Plan (DCP) 2013 has been reviewed. There isn't any relevant or comparable information in this plan that allows to accept consistency with this document to the project.

3.2 Related NSW legislation

3.2.1 Protection of the Environment and Operation Act 1997

The objectives of the Protection of the Environment and Operations Act 1997 (PoEO Act) are to protect, restore and enhance the quality of the environment, in recognition of the need to maintain ecological sustainable development.

The PoEO Act provides for an integrated system of licencing and contains a core list of activities requiring Environmental Protection Licenses (EPL) from the Environment Protection Authority (EPA). These activities are called 'scheduled activities' and are listed in Schedule 1 of the Act.

Extractive industries including crushing, grinding and separating is defined as an activity that requires an EPL when the operations exceed 30,000 tonnes per year. The quarry operates in accordance with EPL12797 which will not require modification as part of the proposal

The PoEO Act also includes requirements for protection against water, air and noise pollution, waste disposal and incident reporting requirements for actual or potential pollution incidents.

3.3 Commonwealth legislation

3.3.1 Environment Protection and Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC) requires approval of the Commonwealth Minister for the Environment for actions that may have a significant impact on matters of national environmental significance. The EPBC Act also requires Commonwealth approval for certain action on Commonwealth land. Matters of national environmental significance under the Act comprise:

- World Heritage areas
- National Heritage places
- Ramsar wetlands of international importance
- Threatened species or ecological communities list in the EBPC Act
- Commonwealth marine environments
- Nuclear actions

There are no World Heritage areas, National Heritage places, Ramsar wetlands or Commonwealth marine areas on or near the Holbrook operation and the proposal does not involve a nuclear action. A protected area matters search was undertaken in February 2025 and it has been concluded that the proposal will not contain any action that could have a significant impact on matters of National Environmental Significance, which are addressed in the EPBC Act.

4. Consideration of Environmental Effects

4.1 Air Quality

Summary of measure in place to control existing impact

Dust would be contained to acceptable levels through regular watering of trafficked areas such as the haul road, dust control measures and water sprays in the processing area, covering loads to be despatched, reducing areas exposed through progressive rehabilitation and by utilising good blasting practices. With the above controls in-place, it is assessed the entire operation would not adversely affect local air quality and would comply with EPA air quality guidelines.

Current management, mitigation and monitoring

All above have been put in place in addition to limiting speed around site, ‘rumble grid’ (cattle grid) for removal of mud and dust. BHQ have had no formal complaints over the last 18 years, however had 2 informal notifications from the EPA of dust observations from the highway.

Effect of proposed changes

There will be no additional impact to Air quality from the proposed changes and the controls currently in place are adequate and equivalent to the previous assessment and approval for up to 400,000 tpa.

4.2 Water Management

Summary of measure in place to control existing impact

On-site water management involving diversion of "clean" water and collection of "dirty" water in a sediment dam, extensive water management controls along the haul road and a series of erosion and sediment controls would ensure surface water quality downstream of the Project Site is maintained.

Current management, mitigation and monitoring

The are no areas of major erosion within the site from the weighbridge, haul road through to the processing plant and pit. All water management structures are working accordingly. There has been no contamination to any water structures. The water structures are regularly maintained and repaired.

Effect of proposed changes

There will be no additional impact to Water Quality from the proposed changes and the controls currently in place are adequate and equivalent to the previous assessment and approval for up to 400,000 tpa.

4.3 Noise

Summary of measure in place to control existing impact

The principal control upon noise generated during extraction within the Quarry relates to the design of the quarry, whereby the quarry has been developed to assist with considerable noise attenuation. Other controls to be adopted relate to the use of appropriate mufflers on equipment, appropriate controls on drilling rigs and regular maintenance of the site access road and haul road. Noise from operational activities associated with the proposal would generally be inaudible at surrounding residences, however, noise may periodically be heard at "Beenly" “Jerapoohl” and “Rockley falls” -with negligible impact due to distance and background noise form the highway.

Current management, mitigation and monitoring

Noise monitoring is not a requirement of the EPL. All sensitive receivers are over 1.5 km away from the quarry. The number of truck movements estimated and modelled in the EIS Noise Assessment was 80

truck movement per day. This is far greater and was a worst case scenario due to the size of trucks, however an average of 25 outbound truck movements (50 total truck movements) per day occurring resulting in predicted limits being lower than anticipated. There have been no public complaints with regards to noise from the site.

Effect of proposed changes

There will be no additional impact to Noise from the proposed changes and the controls currently in place are adequate and equivalent to the previous assessment and approval for up to 400,000 tpa.

4.4 Blasting

Summary of measure in place to control existing impact

Acceptable levels of ground vibration and air blast overpressure are controlled through blast design and barriers. Blast bore tracking and burden calculations provide assurance of contained and controlled blasting.

Current management, mitigation and monitoring

Each blast is monitored, and the results and report are provided for each blast. There have been 4 blasts at Holbrook in 2024 with every blast being under the limit outlined in Condition 28 of 115 dBL.

Effect of proposed changes

There will be no additional impact to Blasting from the proposed changes and the controls currently in place are adequate and equivalent to the previous assessment and approval for up to 400,000 tpa.

4.5 Groundwater

Summary of measure in place to control existing impact

No specific controls are required to protect the groundwater system beneath the Project Site as the groundwater table would not be intersected.

Current management, mitigation and monitoring

Groundwater has not been intersected at the current pit level and due to topography, geology and current climatic conditions it is extremely unlikely to be intersected.

Effect of proposed changes

There will be no additional impact to Groundwater from the proposed change.

4.6 Pit planning

Quarry Design Life

Percussion drilling at the site indicates that the rock resource is largely homogenous and is found throughout the proposed expansion area. Petrographic analysis classifies the rock type as ‘micro granite’ (fine and medium grain).

A geological survey has confirmed that approximately 5 million tonnes of high-strength rock is available for extraction. It is anticipated that rock products will be produced to meet a large variety of applications, particularly in relation to road construction. Products currently produced are gravels and road base, as well as graded aggregate and rock.

Material testing of rock samples confirms that the resource meets or exceeds all relevant hard-rock product specifications particularly in relation to RTA construction specifications.

Annual sales have progressively increased to the point where 203,000t were sold in 2024, reflecting the changing and growing market now available to the Holbrook quarry (table 3). This was achieved at a time when no significant infrastructure projects were affecting demand, confirming the growth in underlying domestic demand for quarry materials generated within the local economy. This is expected to fluctuate in line with the normal 'ups and downs' of private investment, Local, State and Federal Government funding.

TABLE 3 - TONNES PER YEAR

Year	2023-2024	2022-2023	2021-2022	2020-2021	2019-2020
Tonnes	202 538	141,062	106,550	156,797	90,830

Tpa for the Licence period of 7 nov to 6 nov the following year.

The existing Lubke Quarry comprises an area of approximately 6 ha of disturbed ground, with a current operating area of approximately 2.5 ha. The expanded quarry area is proposed to encompass all of the current disturbed area and be 12 ha in total. This comprises 9% of the area of 'Cromer'.

Below is a current Figure of the extent of the proposed quarry in 2007 and the current aerial image. Some areas proposed to be disturbed were not and there is a minor discrepancy with encompassing the existing road to the network tower. There may also be a margin of spatial error. However, the site is under the predicted 12ha.

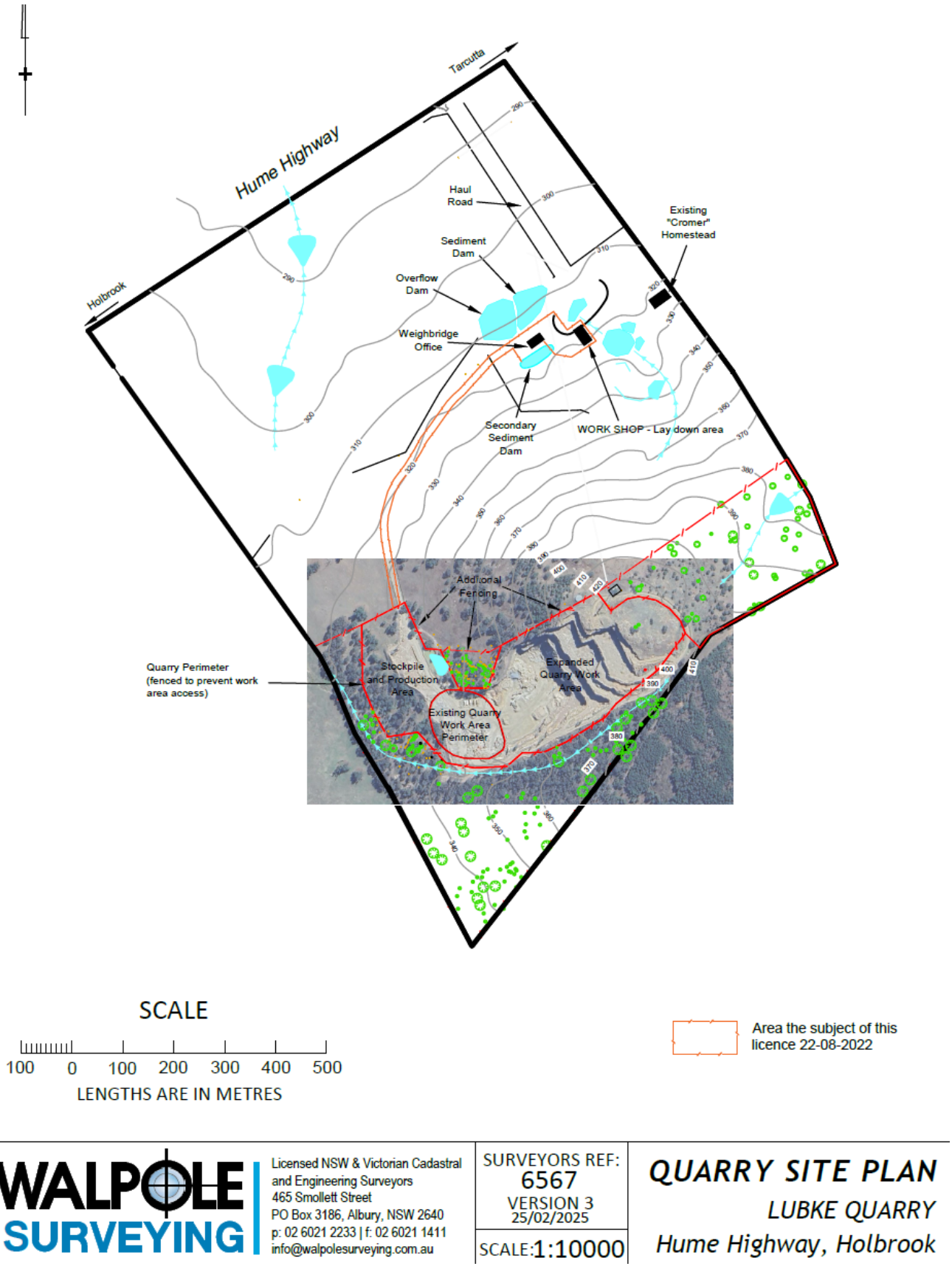


FIGURE 3 – CURRENT SITE LAYOUT

Summary to extend time to continue with the resource approved.

BHQ have not exhausted the current resource within the initial 20 year period. BHQ are within the site boundary as shown in Figure 3.

The physical elements of the quarry operation are contained within the original approved area with one minor deviation identified which is due to the access road (to the existing tower) not originally being included and potential spatial error in data.

BHQ have a current mine plan attached in Appendix C, which demonstrates the remaining resource.

BHQ anticipate this resource would take a further 20 years minimum to exhaust, however it is dependent on market demand which related to tonnes per year extracted and transported offsite.

4.7 Traffic Assessment

Summary of measure in place to control existing impact

At this access point the Hume Highway carriageway is single-lane in either direction, with the nearest seal constructed 15m from the 'Cromer' access gate. The traffic lanes are 3.6m wide with 2m sealed shoulders. The highway is straight and level in either direction with over 255m safe-intersection-sight-distance available (provided several trees were removed either side of the access point). Geometric design of the accessway complies with the semi-trailer swept path requirements detailed in Design Vehicles and Turning Path Templates, Austroads, 1995 (AP-34/95). A hill exists to the south-west of the access point with dual climbing lanes provided, and the 'Lubke Rest Area' is situated directly opposite the access point. This area is fully sealed.

As expanded operations of the quarry will generate a maximum extraction of 200,000 tonnes of crushed rock per year over a 20 year period, and as a cubic metre of crushed rock (loose unit mass) weighs approximately 1.5 tonnes, the peak annual outbound volume of material will be approximately 133,333 cubic metres (m3). Haulage will be done by standard semi-trailer and 'truck and dog' truck

configurations having both 3 and 4 axles. For the purposes of these truck configurations, it is assumed that the average outbound loaded truck carries 33 tonnes or 22 cubic metres. Allowances for lighter truck loads have been factored into later summary analysis. Given the above, there will be approximately 6,250 outbound truck movements per year. Therefore, allowing for 250 working days per year, there will be approximately 25 outbound trucks per day. If an average working day for haulage of material is 8 hours, an average of approximately 4 outbound trucks per hour would eventuate (rounded up from 3.125). For the purposes of this EIS a worst-case-scenario of five times the average is assumed, or a peak hourly traffic generation of 20 outbound trucks per hour. This assumption provides for lighter truck loads than maximum capacities of 33 tonnes.

Current Conditions

The intersection was upgraded in 2011 and was assessment by My Garry Gaffney from Regional Transport Planning. In the report from 2011 it confirmed that the upgrade and layout was ideal for the safe entrance and exit of heavy vehicles when the increased production is in operation (of 400,000 tpa). See Appendix D.

Visibility along the Hume Highway from the intersection is very good, being approximately 1km to the northeast and 200m to the southwest. Visibility to the southwest is not critical as the Hume Highway comprises a dual carriageway with a medium strip that divides southbound (southwest) and northbound (northeast) traffic and allows for traffic turning either direction to do so safely (see figure below). The speed limit on the Hume Highway in the vicinity of Bald Hill Landfill is 110km/hr.

Effect of proposed changes

The anticipated effects from the proposed increase in truck movements was originally assessed in the EIS as there was a peak period of 3 years allowing 400,000 tpa. The increase in tonnes allowed for the Hume Highway and intersection to be upgraded. With this intersection upgrade an increase to 300,000 tpa would be achievable and has been confirmed in the above mentioned report from 2011.

The number of trucks originally considered was noticeably more than current numbers and more than is required to transport 300,000 tpa.

As above the original EIS was modelled with the old intersection and single lane highway and 25 outbound trucks, which is 50 total truck movements a day. It was also modelled with a worst case scenario of five times this at peak.

BHQ currently transport 200 000 tpa with an average of 24-32 total truck movements a day (see Table 3 and Table 4). With the average being 28 total truck movements and the request to increase by 100 000 tpa, this would then be an average of 42 total truck movements, which is less than the original 50 total movements assessed back in 2007.

The intersection upgrade is now a dual carriageway with medium strip. There is an acceleration lane heading toward southbound, deacceleration lane coming from northbound and a deacceleration coming from south bound (see figure below).

Access to the site is direct off the highway resulting in an increase in truck movements minimal impact to the surrounding environment and community.

TABLE 4 – AVERAGE OUTBOUND TRUCK FOR 6 MONTH PERIOD

Month	July 2024	August 2024	September 2024	October 2024	November 2024
Outbound trucks per day	15.3	12.1	15.9	12.8	16.8
Tonnes transported for the month	12,339.24	9396.67	11,740.21	10,324.07	12,353.2
Numberer of loads for the month	353	268	335	295	353
Number of working days (mon-fri)	23	22	21	23	21

There were no formal complaints or incidents reported at our intersection during these additional traffic movements.

The intersection was designed and constructed according to “Austroads Guide to Traffic Engineering Practise, Part 5 – Intersections at Grade” including acceleration and deceleration lanes and can handle vehicles up to truck and dog. The type of truck and vehicles accessing site will not change from the current situation and therefore no major upgrades to the intersection should be required.

FIGURE 4 – CURRENT INTERSECTION

4.8 Flora and Fauna

Summary of measure in place to control existing impact

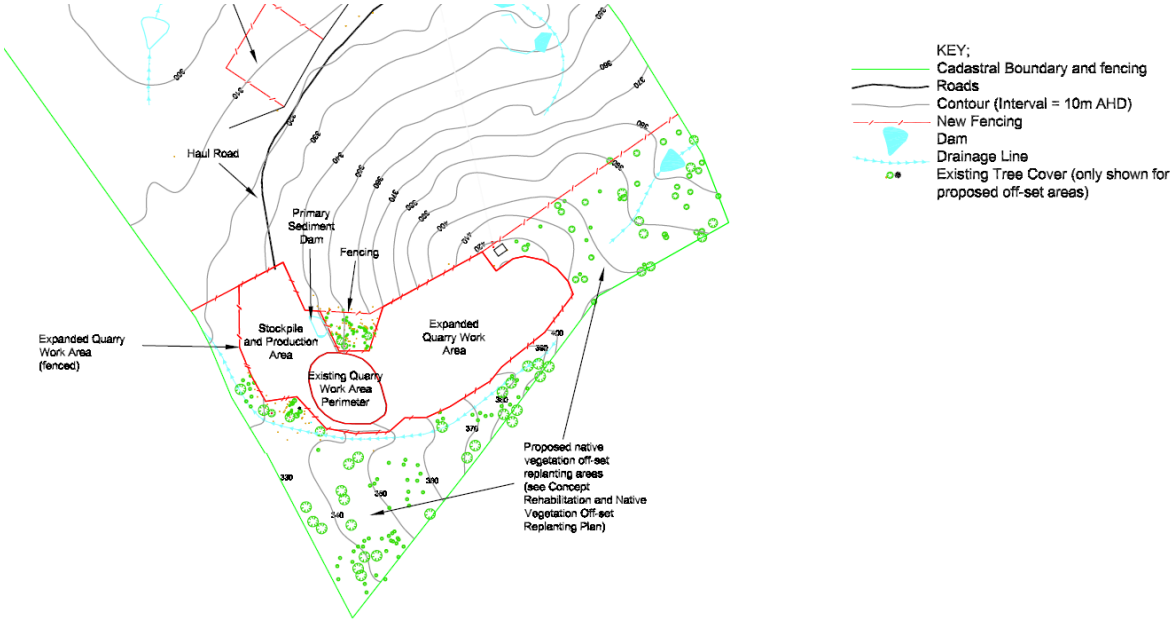
It was assessed that the clearing of vegetation associated with the proposal would have only a minor impact upon vegetation communities and fauna. The proposal would not have a significant impact on threatened fauna species.

Effect of proposed changes

There will be no additional impact to flora or fauna species from the proposed changes and the controls currently in place are adequate and equivalent to the previous assessment and approval for up to 400,000 tpa.

As per condition 47, below are photos of the progress of the tree planting

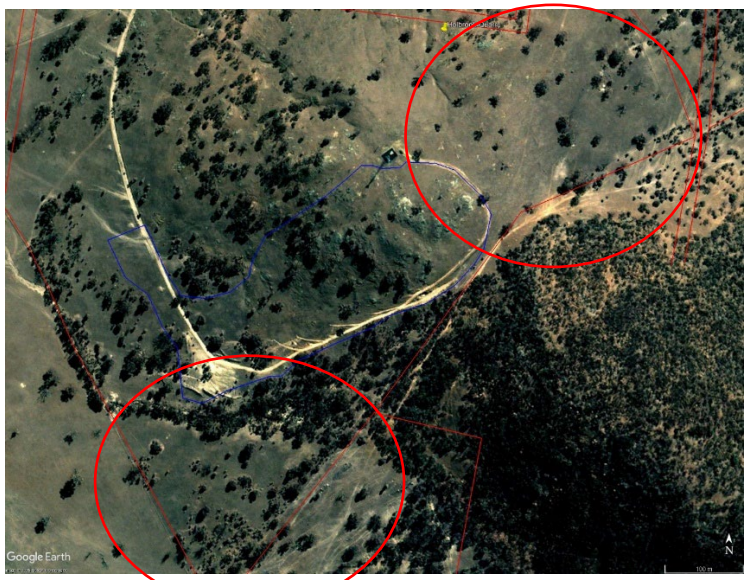
Below were the proposed areas for planting.



	SURVEYORS REF: 6567 VERSION 3	SCALE 100 0 100 200 300 LENGTHS ARE IN METRES	ORIGINAL SCALE 1:7500 SHEET SIZE A3	NOTES	FIGURE 2.3 PAGE 1 OF 3 SITE PLAN LUBKE QUARRY EIS HUME HIGHWAY, HOLBROOK

Below are aerial images of the progress and success of the tree planting. The northeastern side is a sloping hill, so hasn't been as successful as the southern area.

2003



2013

2019

2023

5. Environmental Management

5.1 Environmental Management and Monitoring

BHQ has been and will continue to be committed to sound environmental management for all aspects of the quarry operations and have implemented a number of environmental management and monitoring systems to guide the operations. BHQ will utilise these management plans and systems for the extension period. Such management plans in place are:

- Pollution and Incident Response Management Plan
- Mine Safety Management Plan
- Environmental Management Plan
- Blast and Explosives control plan
- Emergency Response Plan
- Principal Hazard Management Plan

6. Conclusion

The proposed modification for the request to increase the tonnes per annum from 200,000 to 300,000 will have no additional environmental impacts over and above those considered above and previously approved for the current operation. The extension of time is adequately backed by mine planning and within the approved development footprint and overall tonnes. All environmental impacts will be appropriately managed through the continued adoption and implementation of the existing management procedures and mitigation measures identified in this document.

Section 4 and Table 2 have not only demonstrated compliance but also demonstrated that from the original assessment the development would remain substantially the same development.

7. References

Blue Print Planning and Development, 2007. Expansion of Lubke Quarry, Environmental Impact Statement.

Appendices

Appendix A – Dilapidation Study

21 August, 2017.

John Wilkinson,
Bald Hill Quarry P/L,
P.O. Box 264,
Holbrook, NSW. 2644 Email: holbrook@baldhillquarry.com.au

Dear John,

Re: Dilapidation Reports at Coocook Place, RA 11005 – Hume Hwy, Holbrook. 2644

Please read the full Report including the related Technical Information Sheets and Guides available on http://www.archicentreaustralia.com.au/report_downloads/ as these will provide you with an understanding of the faults detected in the assessed property. It is most important that you follow the recommendations in the Property Maintenance Guide and the Health and Safety Warnings.

Contact our Architect, Tony Pringle if you have any queries.

Yours faithfully

Peter Georgiev
(Director)

Archicentre Australia, a division of ArchiAdvisory Pty Ltd
A.B.N 51 614 712 613 A.C.N. 614 712 613
9 Strathalbyn Street, Kew East, 3102

21 August, 2017

John Wilkinson,
Bald Hill Quarry P/L,
P.O. Box 264,
Holbrook, NSW. 2644 Email: holbrook@baldhillquarry.com.au

DILAPIDATION REPORT AT: Coocook Place, RA 11005 – Hume Hwy, Holbrook. 2644

Payment received $660

Archicentre Australia

P: 1300 13 45 13

E: office@archicentreaustralia.com.au

Archicentre Australia
Dilapidation Survey
Report

For further information please call Archicentre Australia on **1300 13 45 13**
or go to **www.archicentreaustralia.com.au**

Dilapidation Survey Report

The Dilapidation Survey Report is a special purpose property inspection report undertaken to provide a visual assessment of constructional and cosmetic fabric defects, which are or may be related to movement of the structure or fabric of the subject property evident on the day of the inspection prior to the commencement of neighbouring construction works.

The report will provide a photographic record of evident constructional or related defects.

CLIENT DETAILS

Name:	John Wilkinson, Bald Hill Quarry Pty. Ltd.		
Telephone:	02 60 36 3111 & 0418 670 291	Booking No.:	867

ASSESSMENT DETAILS

Address of Property:	Coocook Place, RA 11005, Hume Highway				
Suburb:	Holbrook	State:	NSW	Postcode:	2644
Date of Inspection:	21st. August, 2017	Time of Inspection:	10.00 a.m.		
Existing use of Building:	Residence				
Weather conditions:	Overcast, cool, no wind, recent rain, soft ground conditions				

ASSESSOR DETAILS

Your Architect:	Tony Pringle	Architect's Registration No.:	13450
Address:	602, Edmondson Avenue, Albury,		
Email Address:	tonypringle @optusnet.com.au	Telephone:	0402 095 619

DILAPIDATION SURVEY REPORT SUMMARY

Condition of Building:
House is some 9 years old, & remains in reasonable condition. The cracking to paving and other minor defects noted on the previous Archicentre reports (6/12/2011, 29/07/2013, & 12/10/2015) did not appear to have deteriorated to any noticeable extent. Any deterioration noted can be considered the result of minimal soil movement, and all are within the hairline to minor classification cracking range. This re-inspection showed some (what appeared to be) minor settlement cracking to external front wall brickwork at vulnerable points (sill/wall junctions & a garage lintel bearing point). No defects or damage were observed to internal walls, wall/ceiling junctions, or tiling.

As per previous reports, brick on edge kerbing to exterior was showing some further washout to jointing compared to previous observations, plus some undulation to same (no further apparent deterioration), and previously loose or missing edge paving slabs have been rectified since previous inspections. Where appropriate, defects have been re-photographed for comparison with past & future inspections, and recorded in this report as follows:-

Definitions

ASSESSMENT ACCESS

The architect can only inspect the reasonably accessible parts of the property without the use of a ladder or the removal of any furniture, fittings – be they fixed or otherwise – cladding, or lining materials, plants or soil. The extent of accessible areas will be determined by the inspecting architect at the time of the inspection.

Workplace Health and Safety access conditions apply subject to relevant State and Territory regulations.

Areas in excess of 3.0 m above ground level can only be visually assessed from ground level, through windows from within the building, or from a balcony or an accessible roof where safe balustrading or fall prevention barriers are permanently installed. High level access equipment may provide access where this has been explicitly requested and agreed in writing prior to the inspection. The inspection does not include an inspection of sub-floor or ceiling voids.

Reasonable Access may not be possible due to physical obstructions or conditions that may be hazardous or unsafe to the inspecting architect. Access restrictions will be noted where appropriate.

CRACKING IN BRICKWORK

In accordance with AS2870 - Residential slabs and footings - Construction, Appendix C1: Classification of damage with reference to walls, evident cracking will be classified within the following categories.

CRACK CATEGORY	DEFINITION
0	Width less than 0.1mm: Hairline cracks which do not need repair.
1	Width less than 1mm: Fine cracks which do not need repair.
2	Width less than 5mm: Noticeable cracks which can be readily filled.
3	Width between 5mm and 15mm: Cracks are repairable. Weather tightness may be impaired and repairs may require the replacement of small sections of wall.
4	Width greater than 15mm: Extensive repairs required to walls and possibly to adjacent window and door frames, lintels, beams and service pipes.

Attachments

The following selected attachments are an important part of this Report. These can be downloaded from the Archicentre Australia Supplementary Documents page – click here -or by referring to the Report cover email for downloading instructions. If you have difficulty downloading the following ticked attachments, please contact Archicentre Australia on 1300 13 45 13 immediately.

ITEM		ITEM		ITEM	
Property Maintenance Guide	✓	Cracking in Masonry	[ ]	Treatment of Dampness	[ ]
Health & Safety Warning	✓	Roofing & Guttering	[ ]	Re-stumping	[ ]
Termites & Borers	[ ]		[ ]	Cost Guide	✓

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The Report has been prepared by Archicentre Australia, a division of ArchiAdvisory Pty Ltd and the named architect and is supplied to you (the named client) on the basis of and subject to the Scope and these Terms and Conditions. Archicentre accepts no responsibility to other persons relying on the Report.

The Report has been prepared in accordance with Australian Standard 4349.0-2007 Inspection of Buildings Part 0: General Requirements and to any other Australian Standards cited in these Terms and Conditions.

This Report is prepared on a visual inspection of the condition of the reasonably accessible parts of the property and on the basis of the prevailing structural, soil and weather conditions at the time of the inspection and does not cover enquiries of councils or other authorities.

Prolonged periods of wet or dry weather may cause structural changes to the property as described in the Property Maintenance Guide which you can download from the link found in the body of the Report and in the Report cover letter.

This Report will not disclose defects in inaccessible areas, defects that are concealed and/or not reasonably visible, defects that may be apparent in other weather conditions or defects that have not yet arisen.

The Scope and Terms and Conditions take precedence over any oral or written representations.

1. After making the booking, the client is deemed to have accepted the Scope and Terms and Conditions upon the architect arriving on site.
2. The Report is not a guarantee but is an opinion of the condition of the inspected property.
3. Archicentre Australia accepts no liability with respect to work carried out by other trades, consultants or practitioners referred by Archicentre. It is the property owner's responsibility to make appropriate contractual arrangements with such persons.
4. The Report is not a certificate of compliance for the property within the requirements of any Act, regulation, ordinance or local by-law.
5. Archicentre Australia does not accept responsibility for services other than those provided in this Report.
6. This Report does not include a pest inspection. Clients wishing to have a full pest infestation check should advise Archicentre who will arrange for a separate pest inspection.
7. The Report does not cover:
    a. the identification of asbestos related products or the condition or operation of swimming pools, spas and similar facilities.
    b. Condition, adequacy or compliance of electrical, gas and plumbing systems including roof plumbing, underground pipes or drainage systems;
    c. Footings below ground, soil conditions, site factors and hazards;
    d. All maintenance items, particularly those such as jamming doors, windows or catches, decorative finishes and hairline or slight cracks (Category 0 and 1 of Appendix C – Australian Standard AS 2870-2011).
8. Archicentre Australia's liability shall be limited to the provision of a new inspection and report or the payment of the cost of a new inspection and report, at the election of Archicentre Australia.
9. The Archicentre Australia Property Maintenance Guide constitutes a vital part of the architect's recommendations and failure to observe either the recommendations in the report or the Property Maintenance Guide could lead to premature deterioration of the property.
10. The Health and Safety Warnings constitutes a vital part of Archicentre Australia's recommendation to you. Failure to observe the provisions of the warning sheet could jeopardise the safety of the occupants.
11. The Report and its appendices and attachments, as issued by Archicentre Australia, takes precedence over any oral advice or draft reports, to the extent of any inconsistencies, and only the Report and its appendices and attachments, which form a vital part of the architect's recommendations, shall be relied upon by you.
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13. Reference to Archicentre Australia in this Report and any other documentation includes, where the context permits, its agents and representatives authorised to act on its behalf.
14. These Terms and Conditions are in addition to, and do not replace or remove, any rights or implied guarantees conferred by the Competition and Consumer Act 2010 or any other consumer protection legislation.

Previous defects shown in report dated 6/12/2011, 29/07/2013, & 12/10/2015

Photograph no. 1 *Showing minor cracking category 1; apparent soil subbase settlement & appearing reasonably stable. Minimal apparent deterioration consistent with normal anticipated natural soil movement*

Photograph no. 2 *as photograph no. 1 note*

Photograph no. 3 *Showing missing edge pavers. No noticeable change or further apparent deterioration*

Photograph no. 4 *Showing uneven brick edging, mortar washout from joints extensively; some further deterioration consistent with nature of jointing method used + normal anticipated natural soil movement*

Photograph no. 5 *as photograph no. 4 note*

Photograph no. 6 *Showing 1 no. cracked paver. No noticeable change or further deterioration*

Photograph no. 6a *as photograph no. 6 note*

Photograph no. 7 *Showing loose brick edging reinstated + mortar washout to joints. No noticeable change or further deterioration.*

Photograph no. 7a *Showing new paved area added since last inspection; no apparent defect; work rectification carried out as previously identified defect in paving described in photograph 8 note below.*

Photograph no. 8 *Showing reinstated paver edging .*

Photograph no. 9 *Showing hairline cracking category 0 to garage concrete slab; appearing reasonably stable. No noticeable change or further apparent deterioration*

Photograph no. 10 *Showing minor cracking at vulnerable (sill) points, apparent soil subbase settlement, possibly minor further deterioration consistent with soil movement, allocated to wear & tear; & appearing reasonably stable.*

Photograph no. 11 *as photograph 1 note*

Photograph no. 12 *as photograph 1 note*

Photograph no. 13 *as photograph 1 note*

Photograph no. 14 *as photograph 10 note*

Photograph no. 15 *as photograph 10 note*

Photograph no. 16 *apparent new minor category 0 cracking to garage slab; is within code tolerances and appears unlikely to develop into a significant structural issue. Appears due to minimal soil movement.*

Photograph no. 17 *apparent new minor category 1 cracking appearing at at garage lintol/wall junction (a vulnerable stress point). Appears unlikely to develop into a significant structural issue,.& appears due to minimal soil settlement.*

Photograph 1

Photograph 2

Photograph 3

Photograph 4

Photograph 5

Photograph 6

Photograph 6a

Photograph 7

Photograph 7a

Photograph 8

Photograph 9

Photograph 10

Photograph 11

Photograph 12

Photograph 13

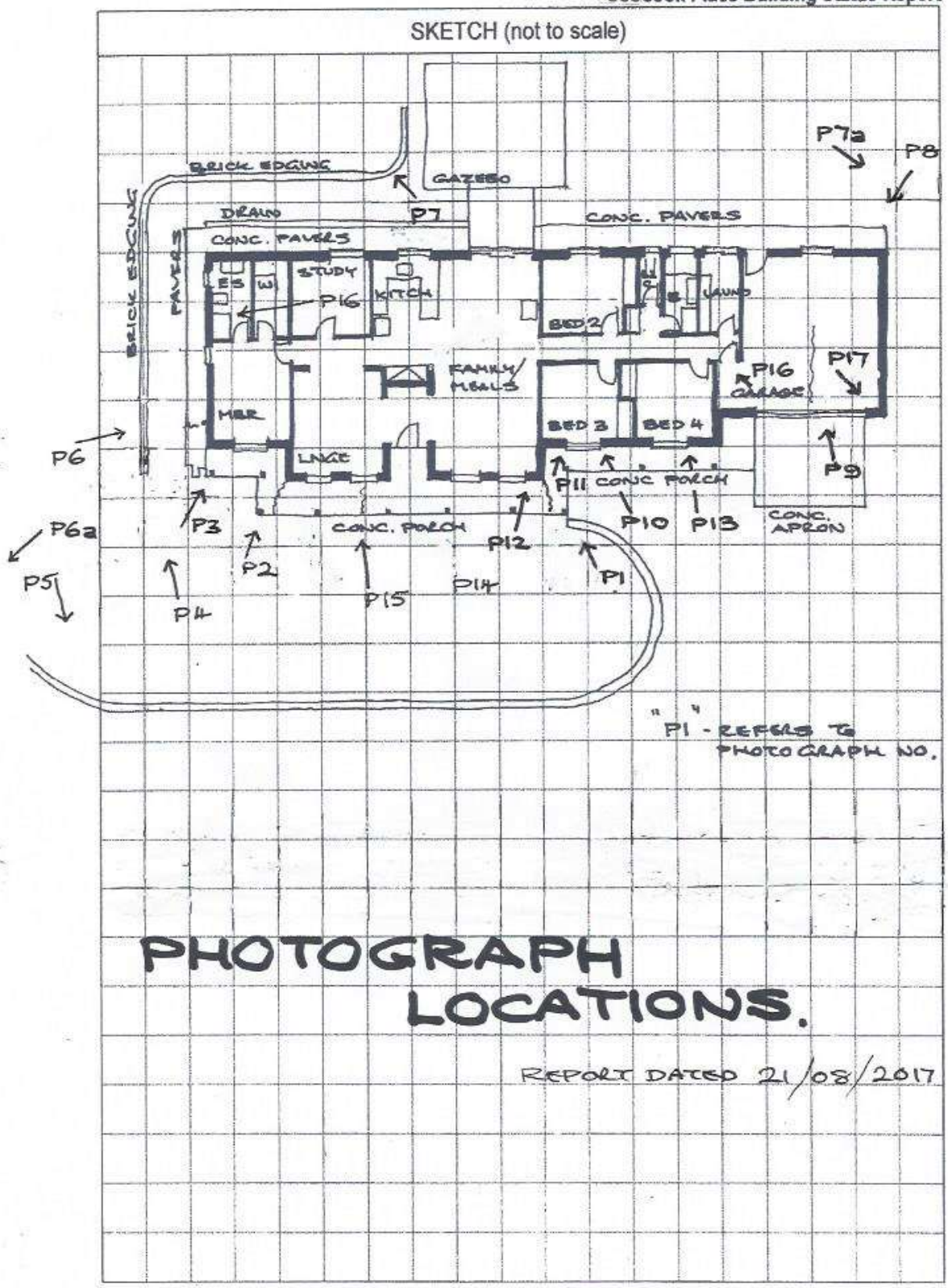
Photograph 14

Photograph 15

Photograph 16

Photograph 17

Coocook Place Building Status Report



Appendix B – Noise Compliance Assessment

Noise and Sound Services

Environmental Noise Compliance Report

For the Expansion of:-

Lubke Quarry, 'Cromer'
Hume Highway,
Holbrook, NSW.

April 2009

Report No. nss 21335 - Final

Prepared at the request of:-

Bald Hill Quarries Pty Ltd
Hume Highway, Holbrook, NSW, 2644

Prepared by:-

NOISE AND SOUND SERVICES
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A Member Firm of the **Association of Australian Acoustical Consultants**
ABN : 7277 134 9599

CONTENTS

		Page
1.	INTRODUCTION	1
2.	SITE DESCRIPTION	1
3.	CRITERIA	2
3.1	Noise Limits	2
3.2	Blasting	2
4.	COMPLIANCE ASSESSMENT	2
4.1	Quarry Noise	2
4.2	Blasting Overpressure and Vibration	4
5.	CONCLUSIONS	4
	APPENDIX A – ACOUSTICAL INSTRUMENTATION USED FOR THE COMPLIANCE ASSESSMENT	5

1. INTRODUCTION

Noise and Sound Services was requested by Bald Hill Quarries Pty Ltd of Hume Highway, Holbrook, NSW, 2644, to carry out a noise compliance assessment for an expansion of an operational quarry at Lubke Quarry, "Cromer', Hume Highway Holbrook, NSW. This noise compliance assessment, which also includes vibration, is required as part of the NSW Environmental Protection Authority General Terms of Approval, Environmental Protection Licence made under the Protection of the Environment Operations Act 1997 (notice No. 1077803).

2. SITE DESCRIPTION

This section describes the location site of the expansion and provides a detailed description of the working activity of the expansion.

The quarry is located at Lot 1 DP 585233 ('Cromer') which is approximately 5 km northeast of Holbrook. The site is situated on the south side of the Hume Highway with the entrance approximately 1.2 km south of the junction with Rankin Road. The surrounding area of the expansion is a rural zone and is surrounded by bush and farmland.

There is also a residence on the site but it is understood that this is owned and used by the quarry owner – hence it is not considered further in this noise compliance assessment. The nearest neighbouring residential properties and the approximate distances from the expansion are shown in Table 1 below:-

TABLE 1 - ALL NEIGHBOURING RESIDENTIAL PROPERTIES WITHIN A 2,500 METRE RADIUS OF THE SITE

Neighbouring Property Name	Direction	Distance (metres)
'Beenly'	West	1,430
'Jerapoohl'	West	1,530
'Rockly Falls'	Southwest	1,610
'Wonga Park'	Northeast	1,360
'Wongalee'	Northeast	1,850
'Rankin Park'/'Milton'	Northwest	2,340
'Quambatook'	South	2,390

Note:- Distances are from the nearest boundary of the quarry perimeter to 30 metres from the nearest wall of each resdience (to the nearest 10 metres)

3. CRITERIA

3.1 Noise Limits

The noise emissions from the premises must not exceed the criteria set out in the NSW Industrial Noise Policy (2000) at the nearest and potentially most affected noise sensitive receptors. As most areas away from the Hume Highway are quite rural areas this is taken as a noise limit ($L_{Aeq,\ 15\ minute}$), from the quarry of 35 dBA.

3.2 Blasting

3.2.1 Overpressure

The overpressure level from blasting operations on the premises must not:

- Exceed 115 dB (linear peak) for more than 5% of the total number of blasts over a period of 12 months; and
- Exceed 120 dB (linear peak) at any time

3.2.2 Vibration

Ground vibration peak particle velocity from blasting operations at the premises must not:

- Exceed 5 mm/s 115 dB (linear peak) for more than 5% of the total number of blasts over a period of 12 months; and
- Exceed 10 mm/s at any time

Note It is assumed that 'the premises' refers to the most affected.

4. COMPLIANCE ASSESSMENT

4.1 Quarry Noise

A site survey was carried out on Thursday 26 March 2009. Noise measurements where carried out close to the quarry during typical worst-case operation activities. This included the use of crushing plant conveyers, two front end loaders, a dozer and truck loading operations. The noise level ($L_{Aeq,\ 15\ minute}$) was **85 dBA** at an approximate distance of 10 metres from the quarry edge.

Site vists were carried out to the resdiences in the area. The dwelling at 'Beenly' was not assessable and appered to be uninhabited. The dwelling at 'Rockly Falls' is within the boundaries of Rockly Falls Quarry and this quarry was in opertion on the day of the visit. The dwelling at 'Wonga Park' is in a loction which is

sheilded from the Lubke Quarry due to natural topography. Therefore the dwelling at 'Jerapoohl', which has line-of-sight to Lubke Quarry, was chosen as the most affected noise sensitive receptor. Noise, overpressure and vibration measurements were carried out at 'Jerapoohl'.

4.1.1 Measurement Procedure

The measurements were carried out between 10:00 am and 12:15 pm on Thursday, 26 March 2009 at the 'Jerapoohl' residential façade facing Lubke Quarry. The 'fast' time weighting and 'A' frequency weighting were used. All measurements were taken at a height of approximately 1.5 metres. The results are necessarily a "snapshot" of the noise levels on the particular day of the survey. Noise levels can vary with time due to different weather or traffic conditions, also low level measurements can be affected by animal or insect noises. However, during the noise survey it was understood that the noise emission from the quarry were typical and the weather did not have an adverse effect on the measurements.

4.1.2 Measurement Results

It was not possible to obtain meaningful energy average ($L_{Aeq,\ 15\ minute}$) measurements at any noise sensitive receptors due to extraneous noise levels in the areas. At the 'Jerapoohl' residence the noise from the Lubke Quarry was only audible or measureable for brief periods when extranuous noise (road traffic on the Hume Highway, construction noise from a neighbouring property and bird noise) stopped. The ($L_{Aeq,\ 5\ second}$) was **30 dBA**. The background nosie level ($L_{A90,\ 15\ minute}$) minute measurement was between **36 dBA** and **45 dBA** as shown in Figure 1 below. The higher levels were due to construction noise from a neighbouring property and not the Lubke Quarry. The lower levels were due to a combination of the Lubke Quarry and ambient noise.

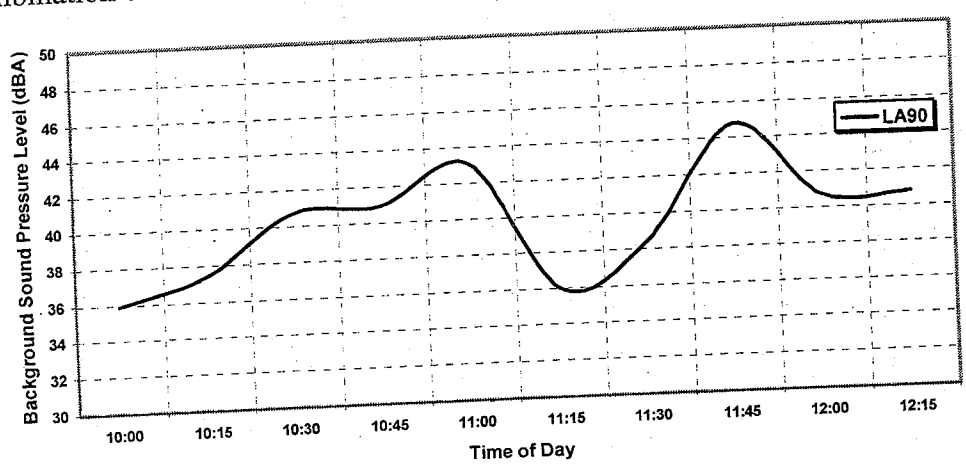


Figure 1. Measured Noise Levels at the 'Jerapoohl' Residence – Thursday, 26 March 2009.

4.2 Blasting Overpressure and Vibration

4.2.1 Measurement Procedure and Result - Overpressure

A measurement of the overpressure of a sample blast was carried out at approximately 11:55 am on Thursday, 26 March 2009 at the 'Jerapoohl' residential façade facing Lubke Quarry. The 'peak' time weighting and linear frequency weighting (2 Hz to 20 kHz) were used. The measurement was taken at a height of approximately 1.5 metres. The overpressure was **111 dB peak.**

4.2.2 Measurement Procedure and Result – Vibration

A sample blast at the quarry was carried out at approximately 11:55 am on Thursday, 26 March 2009. A measurement of the vibration from the blast was carried out at the 'Jerapoohl' residential façade facing Lubke Quarry. A triaxial velocity transducer (geophone) was carefully located on the concrete path close to the foundations of the 'Jerapoohl' residential façade facing Lubke Quarry. The peak particle velocity (vector sum) did not exceed **0.07 mm/s.**

Instrumentation used for the noise and vibration measurements is shown in Appendix A below.

5. CONCLUSIONS

It can be seen from the assessment results that, on the day of the compliance assessment, the noise level from the quarry operations and the overpressure and vibration from the blast did not exceed the limits. These limits are set out in the NSW Environmental Protection Authority General Terms of Approval, Environmental Protection Licence made under the Protection of the Environment Operations Act 1997 (notice No. 1077803).

Date	Prepared by:	Status
2 April 2009	Ken Scannell MSc MAAS MIOA	Final

Important Note. *All products and materials suggested by 'Noise and Sound Services' are selected for their acoustical properties only. All other properties such as airflow, aesthetics, chemical, corrosion, combustion, construction details, decomposition, expansion, fire rating, smoke, ventilation, etc are outside of 'Noise and Sound Services' field of expertise and* ***must be*** *checked with the supplier or suitably qualified specialist before purchase.*

APPENDIX A - ACOUSTICAL INSTRUMENTATION USED FOR THE COMPLIANCE ASSESSMENT

The instrumentation used during the noise source survey consisted of a Brüel and Kjær sound level meter model 2250 (serial no. 2446904). This meter conforms to Australian Standard AS IEC 61672.1-2004 : '*Electroacoustics - Sound level meters – Specifications*' as a class 1 precision sound level meter and has an accuracy suitable for both field and laboratory use. The calibration of the meter was checked before and after the measurement period with a Brüel and Kjær acoustical calibrator model 4231 (serial no. 2445349). No significant system drift occurred over the measurement period.

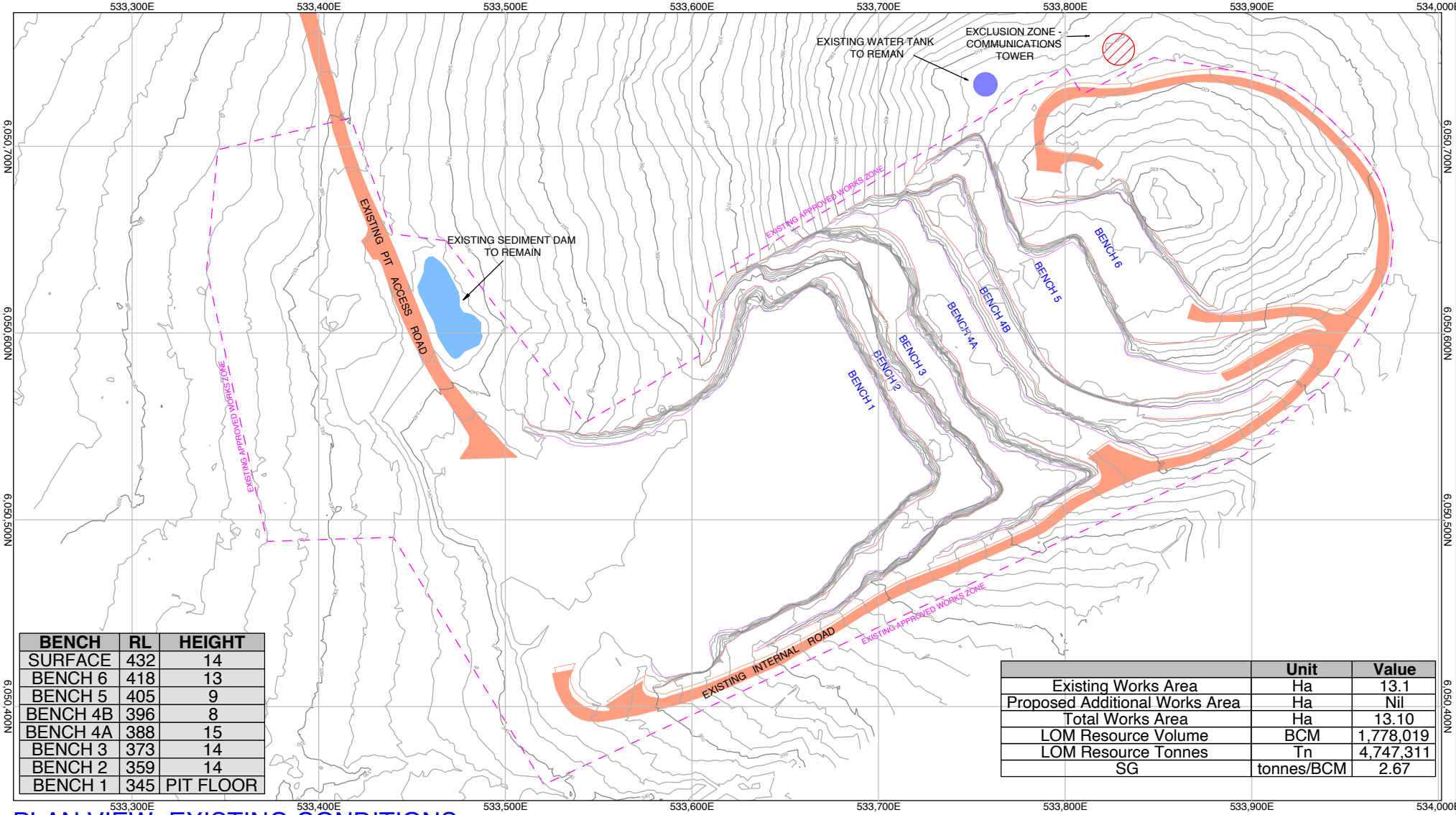
The sound level meter and calibrator have been checked, adjusted and aligned to conform to the Brüel and Kjær factory specifications and issued with conformance certificates within the last 24 months as required by the regulations. The internal test equipment used is traceable to the National Measurement Laboratory at C.S.I.R.O., Lindfield, NSW, Australia.

The instrumentation used for the blast vibration measurement consisted of a Texcel Pty Ltd., Compact Texcel monitor model CTM (serial no. 3114). This meter utilises a tri-axil geophone which has an accuracy of +/- 5% at 31.5 Hz and a band width of 4.5 to 500 Hz suitable for both field and laboratory use. The vibration meter was checked, adjusted and aligned to conform to the Texcel Pty Ltd, factory specifications and issued with conformance certificates within the last two years.

The instrumentation used for the blast overpressure consisted of a Brüel and Kjær sound level meter model 2231 (serial no. 1371469). The 2231 meter conforms to Australian Standard 1259 "*Acoustics - Sound Level Meters*", (1990) as a type 1 precision sound level meter and has an accuracy suitable for both field and laboratory use. The calibration of the 2231 meter was checked before and after the measurement period with a Brüel and Kjær acoustical calibrator model 4231 (serial no. 2445349). No significant system drift occurred over the measurement periods.

The sound level meter and calibrator have been checked, adjusted and aligned to conform to the Brüel and Kjær factory specifications within the last 24 months and issued with a conformance certificate. The internal test equipment used is traceable to the National Measurement Laboratory at C.S.I.R.O., Lindfield, NSW, Australia.

Appendix C – Current Mine Plan



BENCH	RL	HEIGHT
SURFACE	432	14
BENCH 6	418	13
BENCH 5	405	9
BENCH 4B	396	8
BENCH 4A	388	15
BENCH 3	373	14
BENCH 2	359	14
BENCH 1	345	PIT FLOOR

	Unit	Value
Existing Works Area	Ha	13.1
Proposed Additional Works Area	Ha	Nil
Total Works Area	Ha	13.10
LOM Resource Volume	BCM	1,778,019
LOM Resource Tonnes	Tn	4,747,311
SG	tonnes/BCM	2.67

PLAN VIEW -EXISTING CONDITIONS

1:2000

BALD HILL QUARRY

Rev:	Rev. Date:	Description	Drwn	Chkd	Apvd
B	25/04/23	FINAL REVIEW	NH	NM	
A	03/03/23	PRELIMINARY	NH	NM	

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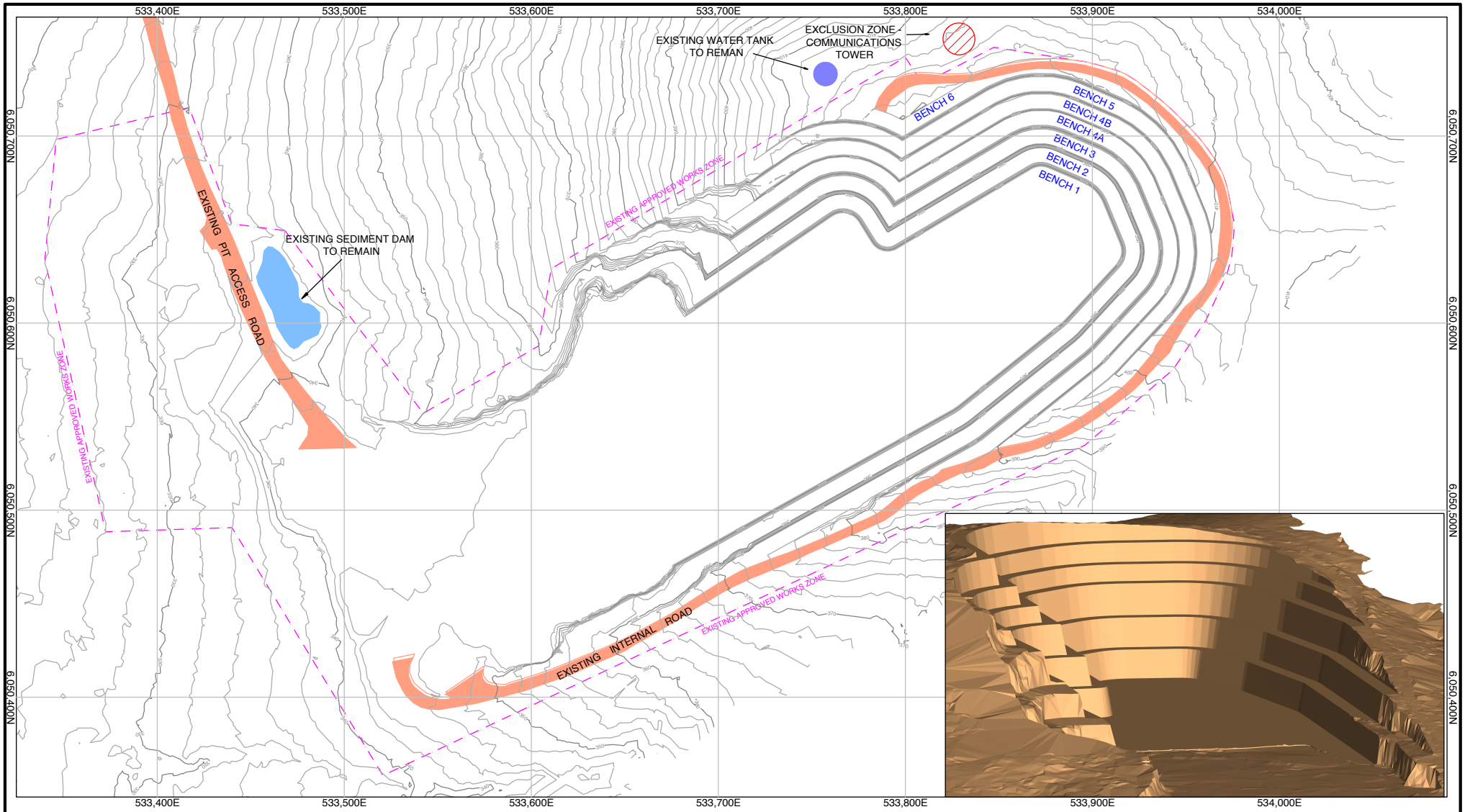
Project Title: BALD HILL QUARRY
Project No: BHQ01

Drawing Title:
HOLBROOK QUARRY - EXISTING CONDITIONS

Originator: MALKIN CONSULTING
Datum: GDA 94
Grid: MGA 55
Scale: 1:2000

Figure/Drawing No.:-
BHQ01-111



PLAN VIEW - ULTIMATE PLAN

1:2000

FINAL PIT- 3D MODEL

BALD HILL QUARRY

Rev:	Rev. Date:	Description	Drwn	Chkd	Apvd
B	25/04/23	FINAL REVIEW	NH	NM	
A	03/03/23	PRELIMINARY	NH	NM	

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Project Title: BALD HILL QUARRY
Project No: BHQ01

Drawing Title:
HOLBROOK QUARRY - ULTIMATE PLAN

Originator: MALKIN CONSULTING
Datum: GDA 94
Grid: MGA 55
Scale: 1:2000

Figure/Drawing No.:-
BHQ01-113

Notes attached to Holbrook Quarry Mine Plan

Geotechnical Considerations

Geology.

The rock mass is a micro-granite (micro adamellite) an intrusive acid igneous rock having a silica (quartz) content of 33%.

Lithology.

Massive, largely consistent, hard and durable with shallow (localised pockets up to 2m) surface weathered zone. Crystal size generally increases from E to W across the exposure.

Weathered zone associated with vertical joints (oriented approx. N-S) located close to the Western boundary is distinguished only by its pale cream to slight blue colours (as distinct from the pink mass).

Joint sets and faulting.

3 dominant joint sets (and numerous minor joint sets) are typical to this rock mass. No faulting has been found to date. A near vertical Basalt dyke (approx. 400mm thick) traverses the site roughly E-W, now well clear of the active quarry areas.

Failure Mechanisms.

Small scale wedge failures associated with minor joint sets. No evidence of planar failure or toppling.

There is a very low risk of a hydrological slip mechanism being present in this homogenous igneous structure.

Short and long term stability.

With sound blasting practices, short and long term stability is considered to be very good. Consideration and management of potential single rock or small scale wedge failures should be undertaken at all times. Current 15m high benches are geotechnically competent. The effective slope angle of 10-15deg is considered stable at all orientations.

Quarry Design Objectives

Haul roads:

Width 1.5 times largest vehicle width.

Bench Height:

Max 15m

Bench Width:

Min 5m

Face angle:

5 degrees from vertical

Berm Height:

Min ½ largest wheel diameter

John Wilkinson BSc Geology Geophysics FIQ

1-5-2023

Reference - Guide Health and Safety at Quarries NSW RR 2018)

Appendix D – Intersection Report

Garry Gaffney trading as

Regional Transport Planning

ABN 41 813 428-421

79 Kincaid Street Wagga Wagga NSW 2650
Phone 0269 215757 Mob. 0439 656769
Email gaffneyg@bigpond.net.au

24 August 2011

James Laycock
Blueprint Planning

Haul road intersection conditions – "Cromer Quarry", Hume Highway, Holbrook (Lot 7 DP 1129439)

You have requested Regional Transport Planning to inspect the entrance to the above quarry off the Hume Highway and to comment on provision for entering and exiting haul trucks. I understand that the output of the quarry is to be temporarily increased for 3 years from 200,000 tonnes (133,333 m^3) per annum to 400,000 tonnes (266,666 m^3) per annum to supply the Hume Highway Holbrook bypass project. I also understand the number of truck movements that will result from the increased production at the quarry.

I am familiar with the site having done a Traffic Impact Statement for the existing quarry in 2007. At that time the highway had only the current north bound carriageway operating and as a two-way road.

I inspected the entrance recently to observe the new provision for turning trucks for the dual carriageway layout.

I am of the opinion that the current layout of the entrance is ideal for the safe entrance and exit of heavy vehicles when the increased production is in operation.

Yours faithfully

Garry Gaffney
CPE; MAITPM