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Our Ref: 2669/PJ/FD/140111

14 January 2011

Department of Planning
23-32 Bridge Street
SYDNEY NSW 2001

Attention: Kane Winwood

Dear Kane

Re: Submission – Oberon White Granite Quarry Environmental Assessment

Umwelt (Australia) Pty Limited (Umwelt) has been requested by Hugh & Sue Webb to provide a submission in regard to Mudgee Stone's proposed expansion and extension of Oberon White Granite Quarry on Lot 2 DP 1089826 (Lot 2) which has the potential to adversely impact on Hugh & Sue Webb's land (Lot 12 DP 603429) which adjoins the western boundary of Lot 2 DP 1089826.

On 14 August 2008, Hugh & Sue Webb lodged a development application (DA 23/09) with Oberon Council for the establishment of a dwelling on Lot 12. At its Ordinary Meeting on 17 February 2009, Council resolved that:

Development Application 23/09 to construct a dwelling on Site 3 on Lot 12 in DP 603429, 173 Titania Road, Oberon be refused **until such time as** the proponents can provide to Council the following:

- a) An independent noise assessment prepared by an approved Acoustic Consultant, identifying the appropriate noise contour in relation to proposed Site 3;
- b) Architectural plans of a proposed future dwelling showing noise attenuation construction methods;
- c) Documentary evidence that all other outstanding issues identified in Staff Report A3 to Council's 17 February 2009 Ordinary meeting have been addressed by the proponents to the satisfaction of the development staff.

The wording of the resolution indicates that if the additional information was provided, the development application would no longer be refused. This was discussed with Oberon Council and, to avoid future confusion or legal challenges, it was decided to lodge a new DA. Council resolved at its meeting on 21 September 2010 that DA fees would be waived for any new application provided that the DA was lodged within six months and the value of the proposed development didn't increase from \$184,000.

Umwelt was engaged by Hugh & Sue Webb to supply the additional information requested by Council at its meeting of 17 February 2009 in regard to DA 23/09. This information has been provided in a Statement of Environmental Effects (SEE) (Umwelt 2011) that accompanied a new development application for a dwelling on Lot 12 DP 603429 that was lodged with Oberon Council on 14 January 2011.

As identified by Oberon Council's resolution of 17 February 2009, one of the major issues raised by Council in regard to DA 23/09 was predicted noise levels at the dwelling site as a result of quarry operations from the proposed expanded Oberon White Granite Quarry. The predicted noise levels were prepared by Spectrum Acoustics as part of the quarry expansion EA that was prepared by R W Corkery & Co Pty Limited on behalf of Mudgee Stone and is currently on exhibition.

The topographic information used in undertaking the noise assessment that was prepared by Spectrum Acoustics for the proposed extension of Oberon White Granite Quarry was based on the LPMA 1:25,000 topographic series. As shown on attached **Figures 1** and **2**, there are errors with the 1:25,000 topographic series information at this location and consequently the noise model used does not accurately reflect the real topography and does not reflect a significant noise attenuating ridge that exists between Webb's proposed dwelling site on Lot 12 and Oberon White Granite Quarry.

Hugh & Sue Webb engaged qualified surveyors Tablelands & Buttsworth to survey the intervening landform in early 2010. As shown on **Figure 2**, the actual landform between the quarry and the dwelling location is up to 25 metres higher than depicted on the 1:25000 topographic series sheet that was used in the noise modelling. As a result, the intervening terrain between the quarry and the dwelling location provides significantly greater noise attenuation than the 1:25000 topographic series landform that was used by Spectrum Acoustics for the Oberon White Granite Quarry Environmental Assessment.

The errors with the topographic model were brought to the attention of Robert Corkery and Scott Hambly of R W Corkery & Co Pty Limited and Spectrum Acoustics. Copies of **Figures 1** and **2** showing the actual surveyed topography between the proposed dwelling on Lot 12 and the quarry were provided to R W Corkery & Co Pty Limited on 12 August 2010 as pdfs and were subsequently provided on 18 August 2010 as DXF files.

Following provision of this information, Spectrum Acoustics remodelled the noise predictions for the proposed dwelling site on Lot 12 on behalf of R W Corkery & Co Pty Limited. As set out in the email from Ross Hodge of Spectrum Acoustics to Scott Hambly of R W Corkery & Co Pty Limited (see **Attachment 1**), the modelling showed that the revised topography reduces the predicted noise levels under worst case conditions (south-south-east prevailing wind conditions) by 4 to 5 dBA with the resultant predicted noise levels being 35.8 dBA at Year 1, 33.8 dBA at Year 2 and 36.9 dBA at Year 20. On this basis, predicted worst case noise levels at the proposed dwelling site on Lot 12 will be 1 to 2 dBA above the planning goal of 35 dBA at Years 1 and 20 respectively with operations in between these time periods not expected to exceed the 35 dBA planning goal.

It is noted that the additional noise modelling undertaken by Spectrum Acoustics on behalf of R W Corkery & Co Pty Limited is not included or mentioned in the Environmental Assessment (EA) for the proposed extension of Oberon White Granite Quarry that is currently on exhibition. It is also noted that the errors in the topographic model used by Spectrum Acoustics for the quarry were also not mentioned or rectified even though R W Corkery was advised of these errors on 12 August 2010 and 18 August 2010. As a result, R W Corkery has included information in the EA (particularly in regard to topography and noise emissions on Lot 12) that it knows is not correct and as a result is false and misleading.

We note that the EA for Oberon White Granite Quarry prepared by R W Corkery, based on the noise modelling undertaken by Spectrum Acoustics using the 1:25,000 series topography, predicts that in excess of 50% of Lot 12 could be adversely affected by noise impacts from the proposed quarry extension but has failed to provide any information as to what mitigation measures may be able to be implemented as part of the proposed quarry development to reduce noise impacts on Lot 12 to an acceptable level.

There is no discussion on whether it is feasible to utilise noise attenuation measures on equipment or measures to minimise noise impacts. It is noted that a 6 metre high acoustic bund wall is proposed to be maintained along the southern boundary of the quarry to reduce noise impacts on dwellings to the south of the quarry. Looking at the quarry plan provided in the EA, sufficient space appears to exist to construct a similar acoustic bund along the western side of the quarry adjacent to Lot 12. This could significantly reduce noise impacts from future quarry operations on Lot 12. In addition, truck traffic noise impacts could be reduced by making the proposed northern egress from the weighbridge (see Figure 2.3 of Oberon White Granite EA) a two way road and removing the need for truck traffic along the existing access along the north-western boundary of the site adjacent to Lot 12. Removal of truck traffic from this area would reduce noise impacts from trucks and enable additional acoustic bunds to be constructed between the quarry loading operations and Lot 12.

Similarly, no mitigation measures in regard to blasting impacts (vibration and overpressure) or dust impacts on Lot 12 have been considered in the EA. It is considered, given the significant portion of Lot 12 that is predicted by R W Corkery to be adversely affected by the proposed quarry extension,

that it would be prudent and necessary for the applicant to detail what noise, blasting and dust mitigation measures are feasible to be incorporated into the quarry operation and that the Department of Planning as the consent authority and Oberon Council as the determining authority for the proposed dwelling, having acknowledged that a dwelling can be built on Lot 12, should be seeking to have this information made available before the application to extend the quarry is determined.

In objection to DA 23/09, Mudgee Stone identified three possible alternate building sites on Lot 12. Each of these alternate sites have been analysed and have significant constraints as discussed in the SEE (Umwelt 2011). Analysis indicates that the proposed dwelling site on Lot 12 is the only viable dwelling site of the four sites identified.

It is the responsibility of the applicant for the proposed quarry extension to assess potential impacts on adjoining properties and identify whether suitable mitigation measures to reduce adverse impacts are feasible or not. The EA prepared by R W Corkery for the proposed extension to Oberon White Granite Quarry has failed to provide this information and should not be determined or supported until such information is provided.

The fact that the quarry site has been identified as an Alaskite resource under a Section 117(2) direction from the Minister for Planning in December 1994 does not negate the need for the applicant to ensure that quarry operations do not adversely impact on adjoining land uses. This includes identifying and implementing feasible noise, dust and vibration measures. No feasible mitigation measures in regard to impacts on the use of Lot 12 have been identified in the EA.

Hugh & Sue Webb's use of Lot 12 should not be sterilised or adversely impacted by the quarry operations, particularly where it has not been demonstrated that there are no feasible mitigation measures that could be implemented. This includes consideration of the scale of the quarry operation proposed. Our understanding is that the particular significance of the resource that led to the Section 117(2) direction is the suitability of the material for the ceramic industry due to its white colour and low iron and albite feldspar content. It is understood that this is a scarce resource and hence the Alaskite deposit was identified as being significant by the then Department of Mineral Resources.

The EA (R W Corkery & Co Pty Limited) states (Section 2.2.2) that approximately 30% of material from production blasts is not suitable for use by National Ceramic Industries. It is not clear from the EA how much of this significant resource will be supplied to the ceramic industry and how much will be used as road base and aggregate. At an intended production level of up to 250,000 tonnes per year, approximately 175,000 tonnes per year (i.e. 70% of 250,000 tonnes per year) would need to be used for the ceramic industry if the scarce resource was to be appropriately utilised. This is a significant increase from total (i.e. ceramic, decorative aggregate, aggregate and road base) production levels to date of 12,987 tonnes (2005/06), 17,760 tonnes (2006/07), 16,884 tonnes (2007/08) and 10,896 tonnes (2008/09) (see Section 1.5.3 of EA).

It is noted that these production levels have been well below the approved maximum production level of 25,000 tonnes per year. Based on this information, even if National Ceramic Industries increased its demand four fold in the future as suggested in the EA, it is unlikely that more than 70,000 to 80,000 tonnes a year of product would be required by National Ceramic Industries. This indicates that, at a proposed average production level of 200,000 tonnes per year, a significant component of this scarce Alaskite resource is planned to be used for road base, decorative and concrete aggregates.

The EA states in Section 2.2.3,

'It is notable that, to the Proponent's knowledge, other than the Oberon White Granite Quarry, the closest commercial quarry to Oberon which produces road base aggregates meeting RTA standards is located at Capertee approximately 80 km by road to the north'.

This is not correct. Oberon Quarries operates a basalt hard rock quarry that is located approximately 4 kilometres south of Oberon and approximately 4 kilometres from Oberon White Granite Quarry. The quarry produces road base and aggregate that meets RTA standards and is suitable for use in concrete. Oberon Quarries has approval to produce up to 400,000 tonnes per year of product and has significant available high quality hard rock resource and stockpiled product. It is noted that Oberon Quarries operations are not discussed in the EA. Given the scarcity of the Alaskite resource and the availability of alternative significant approved hard rock resource in the Oberon area, it would seem

that use of the Alaskite to produce road base products and concrete aggregate beyond the 30% from blasting that is not suitable for National Ceramic Industries, is not an appropriate use of the resource.

This has the potential to significantly impact on the justification for the proposed increase in scale of operation. It also has substantive bearing on the level of impact that may be experienced on Lot 12; production levels will effect noise generation, dust emissions and blasting impacts in particular.

There are several areas in the EA relating to the development application for the dwelling on Lot 12 (DA 23/09) and discussions between Hugh & Sue Webb and the applicant which Hugh & Sue Webb don't believe are a true reflection of these discussions. The possibility of an agreement between the owners of Lot 12 and Lot 2 was discussed on numerous occasions with Umwelt being party to these discussions.

In late 2010, the Directors of Mudgee Stone verbally advised Umwelt that they were not interested in reaching an agreement with the land owners of Lot 12. Lodgement of the new DA for dwelling on Lot 12 was delayed while efforts were made to establish an agreement between the two parties.

The additional information Council required for the development application for the proposed dwelling on Lot 12 (DA 23/09) has now been compiled and lodged with Oberon Council. The difficulty in providing this information has been that in assessing the application for the dwelling, Oberon Council has been relying on information regarding predicted impacts from the expanded quarry as provided by or on behalf of Oberon White Granite Quarry.

As set out above, there are numerous errors and inaccuracies in the information provided in the EA for the expansion of Oberon White Granite Quarry and appropriate mitigation measures for the quarry operation have not been addressed or considered. These errors and omissions have significant bearing on Oberon Council's consideration of the DA for a dwelling on Lot 12. As a result, Oberon Council is left in a position of trying to ensure that a significant resource is appropriately utilised and not sterilised while also trying to ensure that adjoining land uses are not unnecessarily sterilised or adversely impacted. As set out above, the necessary justification for the quarry expansion and significantly increased scale of operation (i.e. four fold increase in areas and tenfold increase in production) and assessment of suitable mitigation measures that could be implemented has not been undertaken or provided.

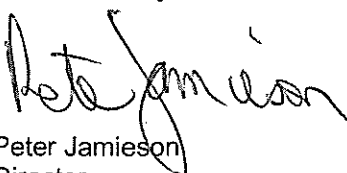
Assessment undertaken in preparing the SEE (Umwelt 2011) indicates that the dwelling that Hugh & Sue Webb seek to construct on Lot 12 can readily be undertaken in an environmentally acceptable manner.

It is our opinion that the Oberon White Granite Quarry resource could be quarried in a way and at a scale that would not adversely impact on a dwelling and its use on Lot 12 at the location proposed. The additional noise assessment undertaken by Spectrum Acoustics discussed above (see **Attachment 1**) demonstrates that, with additional mitigation measures that are in keeping with best practice, the potential impacts of the quarry could be appropriately managed to enable the scarce Alaskite resource to be utilised at an appropriate scale of operation whilst not adversely impacting on a dwelling on Lot 12.

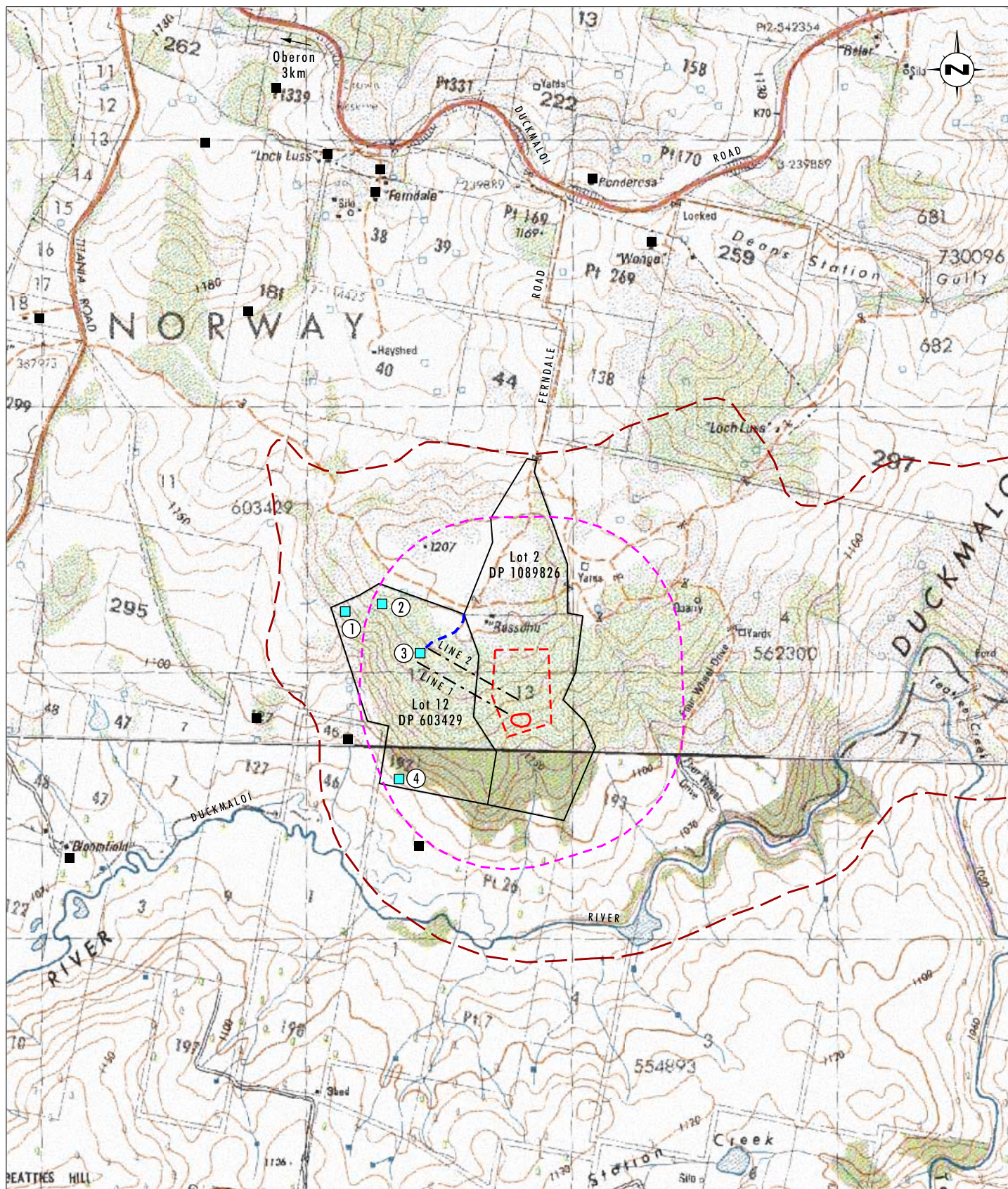
The additional information sought by Oberon Council in regard to DA 23/09 has been prepared (SEE Umwelt 2011) on the assumption that the proposed quarry expansion will comply with contemporary environmental performance requirements at the dwelling location.

If you would like to discuss any aspects of this further, please don't hesitate to contact me on 0417 675 377.

Yours faithfully



Peter Jamieson
Director
enc



Source: DPI, NSW (2000)

0 0.25 0.5 1.0 km
1:20 000

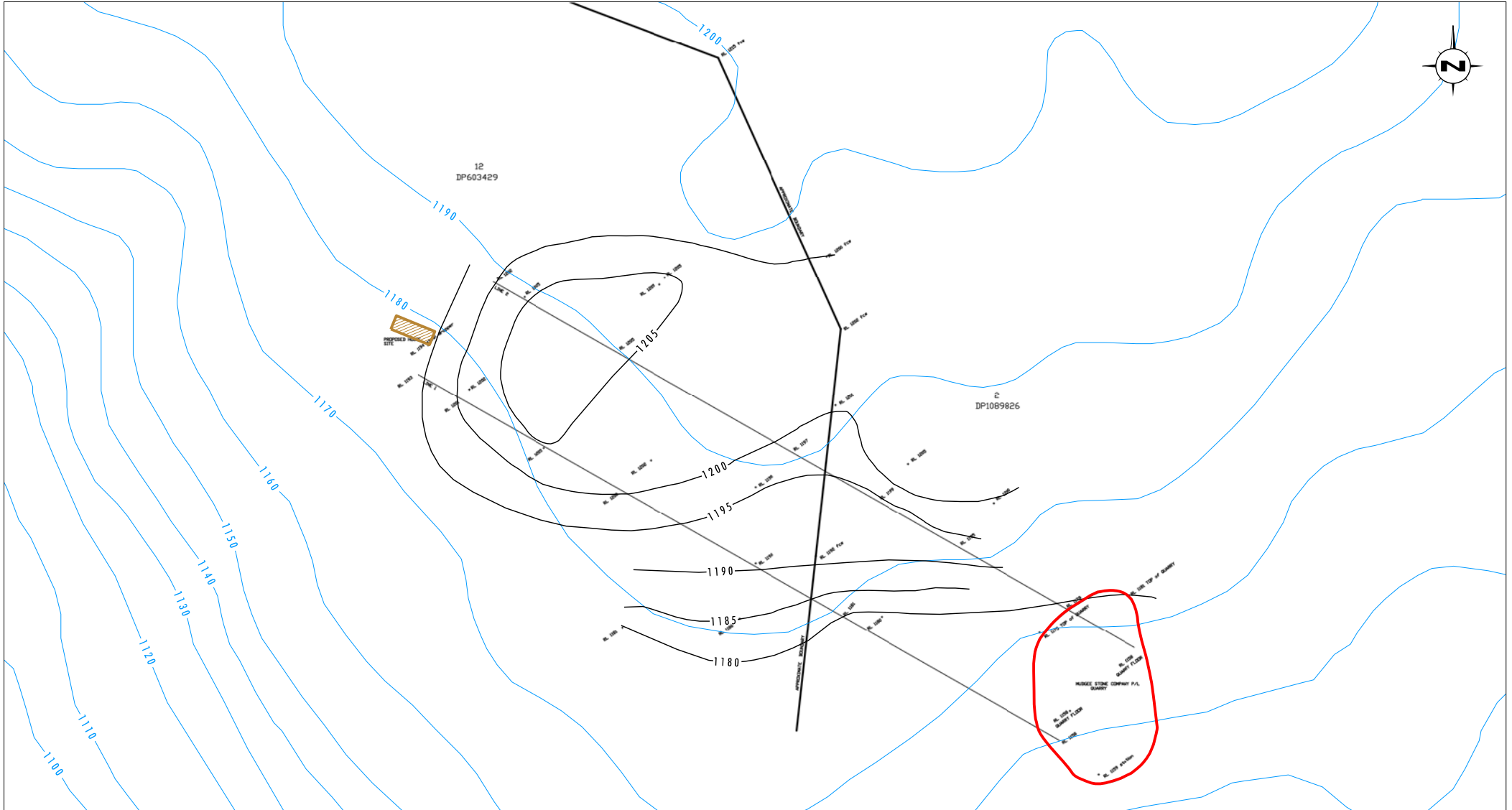
Legend

- Existing Quarry
- Oberon Alaskite Resource Boundary
- Proposed Oberon White Granite Quarry
- 500m Buffer from Proposed Quarry
- Existing Residence
- Identified Dwelling Sites on Lot 12
- Long Section Lines
- Access Track

File Name (A4): V1/2669_001.dgn

FIGURE 1

**Proposed Dwelling
Lot 12 DP 603429
Oberon**



Source: Tablelands & Buttsworth Surveyors (2010), NSW LPI (2000)
Note: 1:25 000 Contour Interval 10m, Surveyed Contours 5m

0 50 100 150m
1:3000

Legend

- Existing Quarry
- Proposed Dwelling Footprint
- 1:25 000 Topographic Map Series Contours
- Ground Survey Contours

FIGURE 2

Topographic Details
Lot 12 DP 603429
Oberon

ATTACHMENT 1

**Email Spectrum Acoustics/
R W Corkery Pty Limited**

From: R.W. Corkery & Co Pty Limited [bristane@rwcorkery.com]
Sent: Wednesday, 25 August 2010 4:04 PM
To: pjamieson@umwelt.com.au
Cc: limesales@bigpond.com
Subject: 709: Oberon - Webb's Potential Dwelling Prelim Noise Results

Dear Peter,

As requested, please find attached the preliminary noise result for the Webb's potential dwelling at Oberon.

Kind regards
Scott Hollamby

RW Corkery & Co Pty Limited
Geological and Environmental Consultants

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From: Ross Hodge [<mailto:Ross@spectrumacoustics.com.au>]
Sent: Friday, 20 August 2010 9:49 AM
To: scott@rwcorkery.com
Subject: Oberon

Gooday Scott,

I've done some modelling runs with the "new" topography included.

All modelling done with the south south east wind as this is worst case for the receiver of the prevailing conditions. Exception is the sleep disturbance which was +3 temp inversion. Results as follows

Year 1 site preparation - FEL on quarry floor, 2 x product trucks, water cart, dozer on access road and excavator at sediment dam. Total received noise **35.8 dB(A) Leq (15 min)**.

Year 5 operations – FEL at stockpile, dozer on veg strip, 30t truck east of pit, excavator in pit, crusher on quarry floor, water cart east of quarry, 2 x product trucks. Total received noise **33.8 dB(A) Leq (15 min)**.

Year 20 operations – FEL at stockpile, drill on bench, 30t truck east of pit, excavator north end of quarry, crusher on quarry floor, water cart east of quarry, 2 x product trucks. Total received noise **36.9 dB(A) Leq (15 min)**.

Year 5 operations with rock hammer – noise sources as before with rock hammer operating. Total received noise **38.4 dB(A) Leq (15 min)**.

Sleep disturbance – impact noise at truck loading point. Received noise **44.7 dB(A) Lmax**.

The results seem to show that the noise levels are about 4 to 5 dB(A) lower as a result of the partial barrier effects of the hill. The Lmax level is fairly similar because it comes from the loading point to the north of the quarry and topo effects are lessened.

Cheers
Ross

Ross Hodge
Principal/Director

Spectrum Acoustics

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