* [redacted] B. Surv. M.I.S. Aust. * [redacted] B. Surv. (Hons); M.I.S. Aust. * [redacted] BTP. CPP.

Blakebrook Quarry
2018 Annual Monitoring Report

Our Ref: 18/616

Date: March 2019

Newton Denny Chapelle
SURVEYORS PLANNERS ENGINEERS

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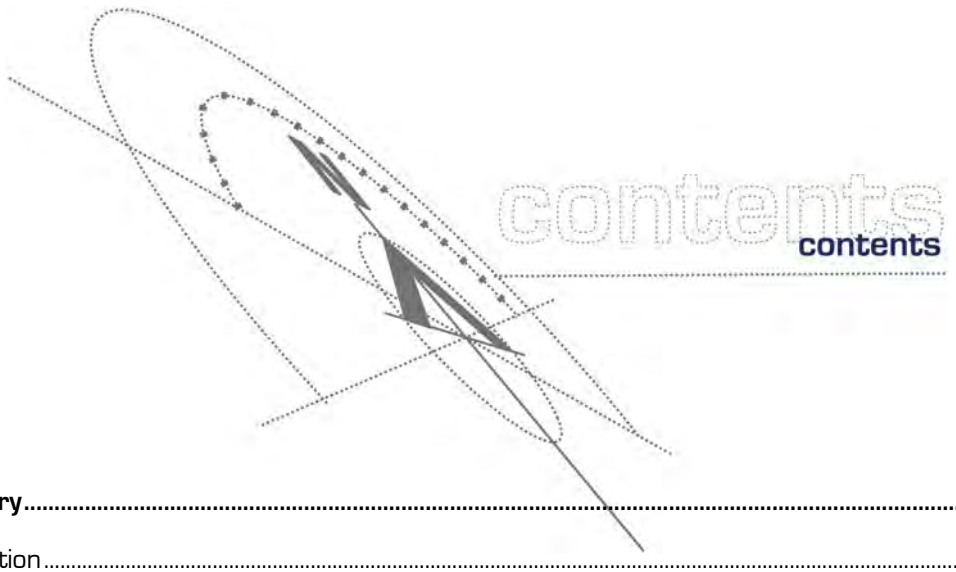


Attachments:

1. Part 3A Approval No.07_0020 (Mod 1)
2. DPE Comments of 2017 AEMR
3. EPA Licence 3384
4. 2017/2018 Production Return
5. 2018 Truck Movements
6. 2018 Noise Monitoring Report
7. 2018 Blast Monitoring Results
8. Air Quality Monitoring Results
9. High Volume Air Sampling Assessment
10. Site Water Balance
11. Surface Water Monitoring Results
12. Preliminary Water Quality Investigation
13. Clarence Morton Bio Region Water Quality
14. Groundwater Monitoring Results
15. Community Consultative Committee
16. Information Available on LCC Website.
17. Complaints Register

i Preamble

Blakebrook Quarry is a basalt quarry located off Nimbin Road approximately 6 kilometres north-west of Lismore. **Plate i** provides a Location Plan of the quarry, whilst **Plate ii** provides an air view of the quarry, including areas set aside for the purpose of environmental offsets.

The quarry is operated by Northern Rivers Quarry and Asphalt (NRQA) which is a commercial entity operated by Lismore City Council. The quarry is identified as a 'State significant' resource and provides a range of quarry products to northern NSW. Material provided include: aggregates, drainage rock, road base, basalt and argillite products, metal dust, fill material and select fill (overburden).

The quarry initially started operations in 1979 with development consent formally granted by Lismore City Council in 1995. Approval was granted for the expansion of the quarry in November 2009 via Part 3A Approval No. 07_0020. This approval was issued by the Minister for Planning and was subject to an extensive list of consent conditions. In September 2017, approval was issued for Modification 1 to the consent. A copy of the approval (as modified) is provided at **Attachment 1**.

One of the conditions of the approval requires the Quarry Operator to prepare an annual review of the environmental performance of the quarry and submit this documentation to the Department of Planning & Environment (DPE). The current report has been prepared to comply with this requirement.

Note: An Asphalt Plant also operates within the boundary of Blakebrook Quarry. The asphalt plant is subject to a separate development application and has different approval, operating and reporting requirements. The current AEMR therefore relates to the quarry only, and not the Asphalt Plant.

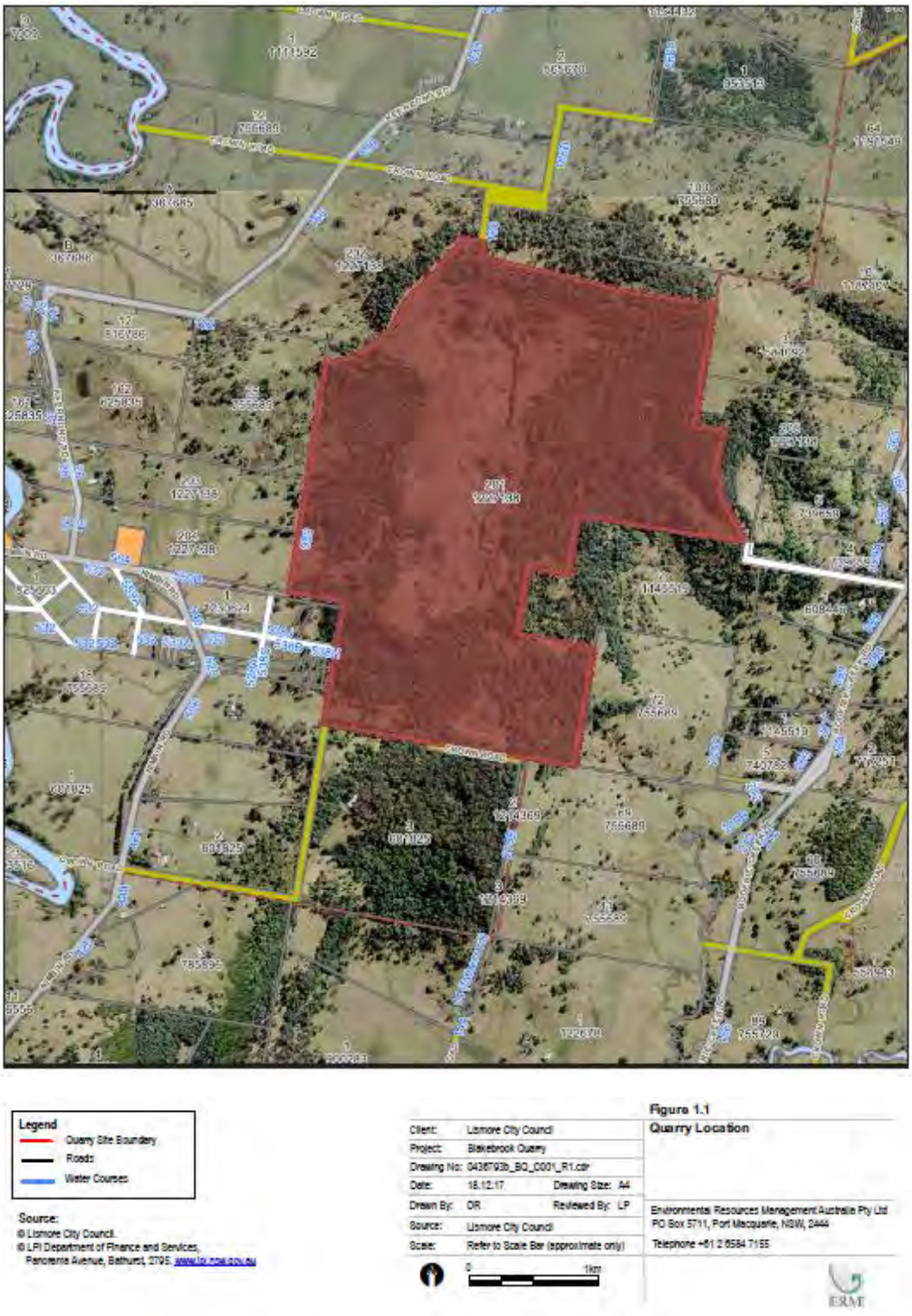


Plate i – Location Plan (Topographic Map Extract)

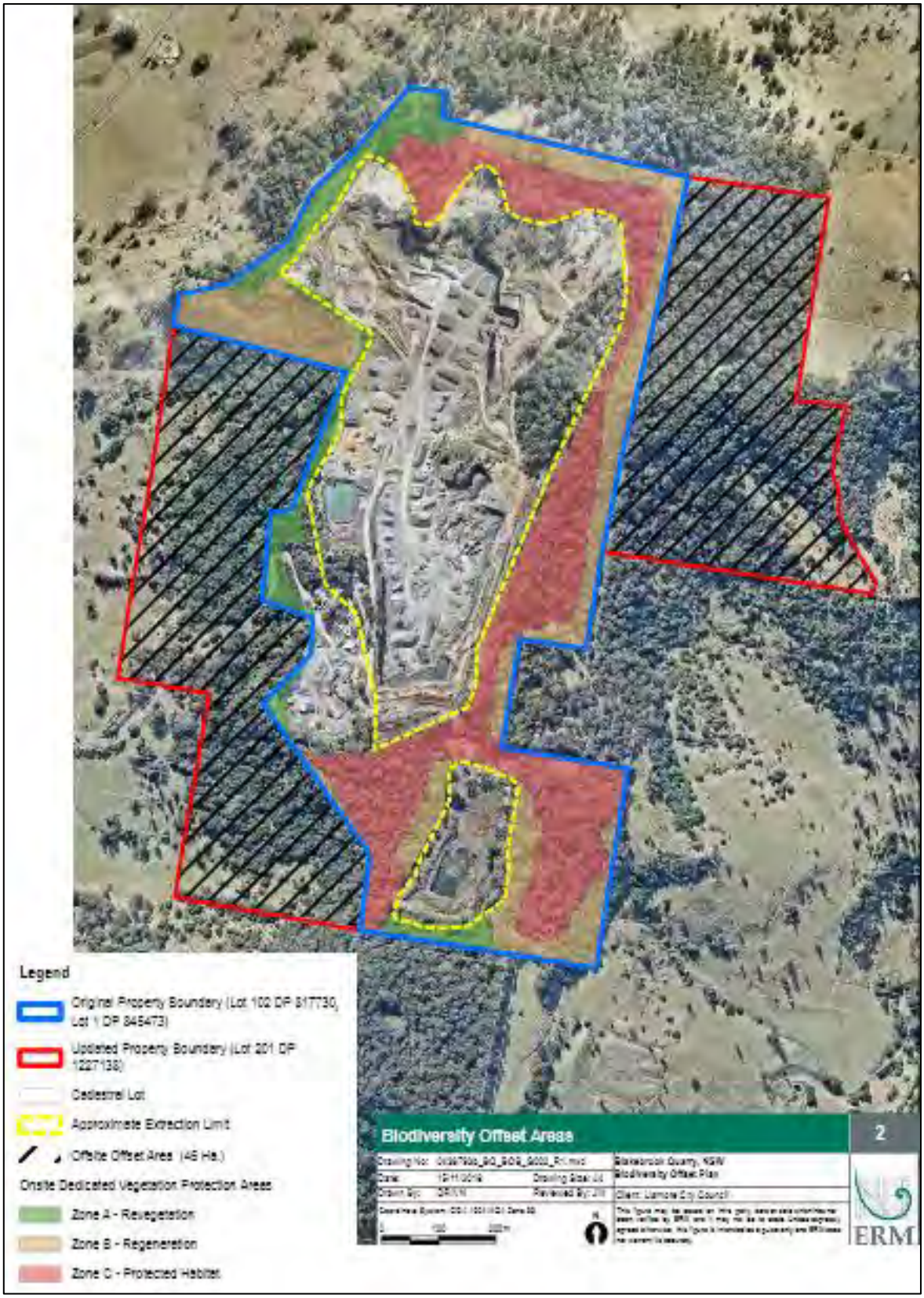


Plate ii –Environmental Offset Areas
(Image Source: Biodiversity Offset Plan, ERM,)

Part 1 - Preliminary

1.1 Introduction

1.1.1 Purpose

Newton Denny Chapelle (NDC) has been engaged by Lismore City Council (LCC) to complete the 2017 Annual Environmental Management Report (AEMR) for Blakebrook Quarry. This report is prepared in response to Schedule 5 Condition 11 of the Blakebrook Quarry Part 3A Approval No. 07_0020 (Mod 1).

1.1.2 Reporting Period

This AEMR relates to the reporting period 1 January 2018 to 31 December 2018 and will be submitted to the DPE in March 2018. It details actions taken during 2018, provides a snapshot of progress on compliance issues and elaborates on planned activities for the coming year.

1.1.3 Information Provided

The information contained herewith is provided in accordance with the requirements of Condition 11 of the approval (as modified) and the comments provided by DPE in response to the 2017 annual review.

It is noted that the Asphalt Plant which operates within the quarry footprint does not form part of development approval MP 07_0020 (Mod 1). Rather, the Asphalt Plant is approved and regulated via DA 1990/431 (as amended) approved by Lismore City Council and EPA Licence No.3384. Accordingly, the environmental performance of the Asphalt Plant does not form part of the current AEMR for Blakebrook Quarry.

1.2 Relevant Approvals

S75W Approval (Modification 1) to Project Approval 07_0020 was approved in September 2017. A copy of the relevant Notice of Modification is provided at **Attachment 1**. The approval was issued by the Minister for Planning and expires on 31 December 2039.

Blakebrook Quarry is also subject to EPA Licence 3384 which is issued by the NSW Environment Protection Authority pursuant to the *Protection of the Environment Operations Act 1997*. The licence provides details with respect to a range of

environmental thresholds to be complied with during the operation of the Quarry. The Licence is reviewed annually, with a copy of the current Licence provided at **Attachment 3.**

1.3 Applications to Amend Approval

Two applications have been prepared in 2018 relating to the operation of the quarry. These are summarised as follows:

1. An application was lodged to DPE in January 2018 to amend Part 3A Approval No. 07_0020 (Mod 1) relating to truck movements. The amendment sought to provide for an increase in the number of truck movements permitted at the quarry to enable an average of 100 truck movements a day across the month with a maximum permissible on one day of 135 truck movements. This application was subsequently withdrawn.

2. An application was lodged to DPE on 11 January 2019 to amend Part 3A Approval No. 07_0020 (Mod 1) to amalgamate the approvals for the Asphalt Plant and the Quarry. DPE have requested further information concerning the project. LCC and the consultant team are currently reviewing this information prior to preparing a response.

   As part of the above, a request has been made to DPE seeking changes to a number of conditions and commitments within the approval notice that are considered to be either duplicates, inaccurate reflections of operations or onerous requirements. These requests are to be formalised into the formal application to amend the approval.

1.4 DPE Response to 2017 Audit

1.4.1 Introduction

The 2017 Audit was submitted to DPE on 29 March 2018. The following sequence of correspondence then occurred:

a) DPE Letter (Undated) received by LCC on 17 July 2018 outlining a number of additional information requirements to be provided not later than 27 July 2018.
b) LCC Letter to DPE dated 26 July 2018 responding to the additional information requirements; and
c) DPE Letter to LCC dated 29 August 2018 providing final comments on 2017 Audit.

Copies of these letters are provided at **Attachment 2** and a summary of the key matters is provided below.

1.4.2 Schedule 2 – Condition 8 (Production Data)

DPE Comment (17/6/18): *The Department has reviewed the 2017 AEMR and considers it to be generally in accordance with the approval. However, in accordance with Schedule 2, Condition 4, the Secretary requests that the following information be provided to the Department by 27 July 2018:*

a) Schedule 2, Condition 8- Production data provided in Section 1.4 and 2.1.3 states that 14,253 tonnes were produced during the reporting period. A review of Figure 2.1 shows that this value would have been surpassed within the first two months of operation. Please review these sections and provide the correct production value;

LCC Response (26/07/18): LCC advised that: "The production data provided within Section 1.4 and 2.1.3 was incorrectly typed. The correct figure of production for the period of 1 January 2017 to 31 December 2017 was 142,530 tonnes".

1.4.3 Schedule 2 – Condition 8 (Truck Numbers)

DPE Comment (17/6/18): *Schedule 2, Condition 8 - The Department notes that the truck movement data submitted as Attachment 7 only provides data from 3 July 2017 onwards. Please provide truck movement data for the entire reporting period to ensure compliance with Schedule 2, Condition 8 of the approval; and*

LCC Response (26/6/18): LCC provided updated data incorporating to entire reporting period.

DPE Response (29/8/18): *The Department has reviewed the additional truck movement data and has found no exceedances of the allowable daily limit. Please ensure that the Appendix is updated to include all truck data and that the document is uploaded to your website;*

1.4.4 Schedule 3 – Condition 19 (Water Quality)

DPE Comment (17/6/18): *- Schedule 3, Condition 19 - In accordance with Section 7.4 of the currently approved Groundwater Management Plan and Section 7.3 of the currently approved Soil and Water Management Plan, as required by Schedule 3, Condition 19 of the approval, the Department has noted multiple occasions where groundwater quality trigger values, as described in ANZECC (2000) Australian and New Zealand Guidelines for fresh and marine water quality, have been exceeded. Exceedances for pH, Aluminium, Copper, Nickel, Lead, Zinc and Mercury have been found upon review of Attachment 11 and 13. Please provide the circumstances under which exceedances of the approved criteria went unreported and what is currently being done to manage groundwater.*

LCC Response (26/6/18): LCC provided copy of the 'Water Quality Investigation Report' (Attachment 14 to 2017 Audit) which explained and provided justification for the exceedance.

Additional information was also provided by LCC with respect to a number of related matters.

DPE Response (29/8/18): *The Department has reviewed the Water Quality Investigation Report and has found that the identified exceedances were discussed in this attachment. In all subsequent reports, please ensure that any exceedances are clearly identified and discussed within the AEMR, The Department also requests that all exceedances are reported immediately to the Department when LCC becomes aware of them, as required by Schedule 5, Condition 2, with a written report to follow within 6 days, as required by Schedule 5, Condition 3.*

1.4.5. Information to be provided in future AEMR (17/6/18)

In addition to the above matters, DPE requested that the 2018 AEMR incorporate the following matters as outlined in **Table 1**.

Table 1 – Response to DPE Requirements

Requirement	Response
Schedule 3, Condition 10 - Air quality monitoring data for the reporting period is to be tabulated to show compliance with the limits shown in Table 4: Air Quality Criteria;	The assessment against Schedule 3, Condition 10 includes a tabulation of the data as requested. Refer Statement of Compliance against Schedule 3 Condition 10.
Ensure that the requested Statement of Compliance against each condition of the approval contains all relevant information.	The structure of the AEMR has been revised to ensure that a full Statement of Compliance is provided against each condition. Refer Part 2.
The above requests should be tabulated within the next AEMR, with specific section references as to where each point has been addressed within the report.	**Table 1** provides this information.

1.4.6 Other DPE Comments (Undated Letter)

DPE Comment: *Additionally, the Department notes that the Quarry currently has outstanding management plan amendments as requested on 24 April 2018. Please ensure that the requested amendments are provided to the Department by specified due dates.*

LCC Response: The following Management Plans were updated and submitted in accordance with agreed timeframes.

- Aboriginal Heritage Management Plan (v3.1, August 2018)
- Air Quality Management Plan (v3.1, August 2018)
- Environmental Management Strategy (v3.1, August 2018)
- Operational Traffic Management Plan (v3.1, August 2018)
- Noise and Blast Management Plan (v3.1, August 2018)
- Biodiversity and Rehabilitation Management Plan (v3.1, August 2018)

The updates and approval of the Biodiversity Offset Strategy (BOS), Soil and Water Management Plan (SWMP) and Biodiversity and Rehabilitation Management Plan (BRMP) were delayed in finalising (the latter due to a typo within a DPE letter). In 2018 LCC progressively worked on finalising these reports and in December 2018 a final draft BOS and SWMP were provided to DPE. At that time, the BRMP was awaiting a final edit associated with the acceptance of the BOS. Each of these plans were approved by DPE in early 2019.

We note that the above represented a significant commitment of resources by Quarry Management.

DPE Comment: Lastly, please be advised that during the 2018 reporting period an Independent Environmental Audit is required to be undertaken accordance with Schedule 5, Condition 12.

LCC Response: The required Audit was completed by GeoLINK in December 2018 and submitted to DPE on 14 February 2019.

DPE Comment: A detailed Groundwater Assessment is also due to be submitted to the Department by 30 December 2018, in accordance with Schedule 3, Condition 17. Please ensure that both are completed during the 2018 reporting period.

LCC Response: The Groundwater Assessment was submitted to DPE on 20 December 2018. DPE subsequently requested further information and provided an extension for the completion of the work. DPE have accepted LCC changes, however are unable to 'approve' the document without feedback from the Natural Resources Access Regulator (NRAR). LCC continues to correspond with NRAR for a response.

Part 2 – Statement of Compliance

2.1 Introduction

Part 2 provides a comprehensive compliance assessment relating to each condition of consent applicable to MP07_0020. Each condition is reproduced in full and then followed by the findings of the 2018 AEMR.

The restructure of the Statement of Compliance (compared to previous versions of this document) has occurred as a direct response to the feedback from DPE with respect to the 2017 document.

Schedule 1 – Description of Approval

Schedule 1 describes the development, approval dates and delegations. No compliance statement is required.

Schedule 2 – Administrative Conditions

Schedule 2 - Condition 1 (Minimise Harm)

Condition

In addition to meeting the specific performance measures and criteria established under this approval, the Proponent must implement all reasonable and feasible measures to prevent or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.

Compliance Statement

Noted.

Schedule 2 - Condition 2 (Comply with Approval)

Condition

The Proponent must carry out the project:

(a) generally in accordance with the EA and EA (Mod 1); and

(b) in accordance with the conditions of this approval, Project Layout Plan and the Statement of Commitments.

Compliance Statement

Noted.

Schedule 2 - Condition 3 (Interpretation)

Condition

If there is any inconsistency between the documents in condition 2(a), the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.

Compliance Statement

Noted.

Schedule 2 - Condition 4 (Compliance with Written Instruction)

Condition

The Proponent must comply with any written requirement/s of the Secretary arising from the Department's assessment of:

(a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval (including any stages of these documents);

(b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with this approval;

(c) and the implementation of any actions or measures contained in these documents.

Compliance Statement

Section 1.3 summarises the specific DPE information requirements to be incorporated within the 2018 AEMR and documents how these requirements have been incorporated into the current 2018 report.

Schedule 2 - Condition 5 (Surrender of Former Consent)

Condition

By 30 June 2010, the Proponent shall surrender development consent DA 95/239 to the relevant consent authority to the satisfaction of the Secretary.

Compliance Statement

Completed.

Schedule 2 - Condition 6 (Expiry of Approval)

Condition

The Proponent may carry out quarrying operations on the site until 31 December 2039.

Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional requirements and undertakings to the satisfaction of the Secretary. Consequently, this approval will continue to apply in all respects other than the right to conduct quarrying operations until the rehabilitation of the site and those requirements and undertakings have been carried out to the standard required by the applicable conditions.

Compliance Statement

Noted. Rehabilitation requirements not applicable to current stage of development.

Schedule 2 - Condition 7 (Quarry Depth)

Condition

The Proponent must not undertake quarrying operations below 55 m AHD in the northern pit or 105 m AHD in the southern pit.

Note: Drainage sumps may be constructed below this level with the agreement of the Secretary.

Compliance Statement

Quarry operations did not extend below the nominated levels in 2018.

Schedule 2 - Condition 8 (Limits on Approval)

Condition

The Proponent must not:

(a) transport more than 600,000 tonnes of quarry materials from the site per calendar year; or

(b) dispatch more than 100 laden trucks from the site on any calendar day.

Note: Dispatch of laden trucks is also controlled under condition 1 of Schedule 3.

Compliance Statement

(a) Quarry Materials

Production data is formally collated based on the financial year (as per Schedule 2 Condition 14). The 2017/18 Production Return is provided at **Attachment 4** and indicates that production for that period was 216088 Tonnes. This is substantially less than the 600,000 Tonnes permitted by Schedule 2 -Condition 8.

(b) Truck Movements

Attachment 5 contains a schedule of recorded truck movements from the site, whilst **Table 2** summarises the maximum daily truck movement for each month in 2018.

Table 2– Summary of Truck Movements 2018

	January	February	March	April	May	June	July	August	September	October	November	December
Highest Number of Trucks / Day	99	100	94	100	**105**	100	96	58	70	45	43	64
Average Number of Trucks / Day	32.7	37.4	37.2	39.7	66.4	46.5	39	26	27.9	13.9	13.8	12.3
Total Number of Trucks /Month	850	936	1005	1032	1726	1209	1015	675	726	374	359	331

Other than for one occurrence in May, the vehicle movements are in accordance with the terms of Schedule 2 Condition 8. On 16 May 2018 laden truck movements exceeded the daily permitted allowance of 100 vehicles.

LCC reported the exceedance to DPE in an email letter dated 17 May 2018, with a follow up letter issued concerning the investigation findings on 21 May 2018. In a letter dated 6 July 2018, DPE advised as follows:

> *"...The Department has now finalised its investigation and has determined to take no official enforcement action against LCC on this occasion. In taking this approach, the Department has considered that LCC reported the exceedance promptly in accordance with Schedule 5, Condition 8 and that no reported material harm occurred as a result of the exceedance in this instance.*
>
> *The Department has also considered that following the exceedance, LCC has implemented an 'approach capacity monitoring' methodology and that the software will now capture movements based on product categories rather than customers..."*

Schedule 2 - Condition 9 (New Buildings & Structures)

Condition

Structural Adequacy

The Proponent must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Notes:

- *Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for any proposed building works;*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.*

Compliance Statement

Noted. No buildings constructed in 2018.

Schedule 2 – Condition 10 (Demolition)

Condition

Demolition

The Proponent must ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.

Compliance Statement

Noted. No demolition of structures in 2018.

Schedule 2 – Condition 11 (Protection of Public Infrastructure)

Condition

Protection of Public Infrastructure

Unless the Proponent and the applicable authority agree otherwise the Proponent must:

(a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and

(b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project.

Note: This condition does not apply to damage to roads caused as a result of general road usage or otherwise addressed by contributions required by condition 13 of Schedule 2.

Compliance Statement

No damage to public infrastructure occurred as the result of the project in 2018.

Schedule 2 – Condition 12 (Plant & Equipment)

Condition

The Proponent must ensure that all the plant and equipment used at the site, or to monitor the performance of the project is:

(a) maintained in a proper and efficient condition; and

(b) operated in a proper and efficient manner.

Compliance Statement

Council fleet maintenance is managed by contracted fleet suppliers. Contractors evaluated as part of the procurement process must have adequate operation, maintenance and safety procedures in place.

Environmental monitoring largely completed by contractors. A condition of engagement requires that a regular maintenance program completed for all monitoring equipment.

Schedule 2 – Condition 13 (Roads Contributions)

Condition

The Proponent must pay Council an annual financial contribution toward the maintenance of local roads used for haulage of quarry products. The contribution must be determined in accordance with the Lismore City Council Section 94 Contribution Plan, 2004, or any subsequent relevant contributions plan adopted by Council.

Compliance Statement

S7.11 fees are paid to Lismore City Council on a monthly basis.

Schedule 2 – Condition 14 (Production Data)

Condition

The Proponent must:

(a) from the commencement of quarrying operations provide calendar year annual quarry production data to DRG using the standard form for that purpose; and

(b) include a copy of this data in the Annual Review.

Compliance Statement

Annual production data was provided to the Department of Trade on 17 July 2018. A copy of the supplied data is provided at **Attachment 4**.

Schedule 2 – Condition 15 (Compliance with Conditions)

Condition

The Proponent must ensure that all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.

Compliance Statement

LCC advises that staff are briefed on approval requirements (relevant to their responsibilities) as part of the induction process.

Schedule 2 – Condition 16 (Extraction Limits)

Condition

The Proponent must ensure that the boundaries of the approved limits of extraction are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits.

Compliance Statement

LCC advises that extraction boundaries are clearly identified on site with metal stakes. These were viewed by DPE officers at their last inspection.

Schedule 3 – Specific Environmental Conditions

NOISE – HOURS OF OPERATION

Schedule 3 - Condition 1 (Hours of Operation)

Condition

The Proponent must comply with the operating hours set out in Table 1.

Table 1: Operating hours

Activity	Permissible Hours
Quarrying operations including loading and dispatch of laden trucks	7 am to 6 pm Monday to Friday
	7 am to 3 pm Saturday
	At no time on Sundays or public holidays
Blasting	10 am to 3 pm Monday to Friday (except public holidays)
	At no time on Sundays or public holidays
Maintenance	May be conducted at any time, provided that these activities are not audible at any privately-owned residence

Compliance Statement

The following observations are made with respect to hours of operation of the quarry:

a) Quarry opening hours are provided below:
   - 7am - 4pm Monday to Wednesday
   - 7am - 3.30pm Thursday and Friday

   The opening hours are compliant with the approved operating hours for the premises.

b) Blasting operations have occurred within the specified hours (refer to assessment against Schedule 3 - Condition 6); and

c) Quarry Management advises that no significant maintenance was completed outside of the nominated operating hours.

Schedule 3 – Condition 2 (Exception to Hours of Operation)

Condition

The following activities may be carried out outside the hours specified in condition 1 above:

(a) delivery or dispatch of materials as requested by Police or other public authorities; and

(b) emergency work to avoid the loss of lives, property or to prevent environmental harm.

In such circumstances, the Proponent must notify the Secretary and affected residents prior to undertaking the activities, or as soon as is practical thereafter.

Compliance Statement

Quarry Management advises that no significant works or activities were completed outside of the operating hours nominated in Schedule 3 Condition 1.

Schedule 3 – Condition 3 (Noise)

Condition

The Proponent must ensure that the noise generated by the project does not exceed the criteria in Table 2 at any residence on privately-owned land.

Table 2: Noise criteria dB(A)

Receiver	Day $L_{Aeq\ (15\ minute)}$
Location 2	36
All other locations	35

Noise generated by the project is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy. Appendix 5 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, the noise criteria in Table 2 do not apply if the Proponent has an agreement with the relevant landowner to exceed the noise criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

Compliance Statement

a) Environmental Assessment Predictions

The Noise Impact Assessment lodged with the development application included the following predicted operational noise levels.

Table 3: Predicted Operational Noise Levels

Receiver Area	Predicted Noise LA_{eq} dB(A) Scenario			PSNL LA_{eq} dB(A)
	1.	2.	3.	Day
Location 1	33	33	33	38
Location 2	34	36	36	38
Location 3	<30	<30	<30	35
Location 4	<30	<30	<30	35
Location 5	33	33	31	35
Location 6	<30	<30	<30	35
Location 7	35	35	33	35

Notes:

- Scenario 1 – proposed overburden stripping
- Scenario 2 – proposed central operation
- Scenario 3 – proposed northern operation

b) Monitoring Results

The 2018 Annual Noise Monitoring Assessment was completed in November 2018 by Ambience Audio Services. A copy of the report documenting the findings of this assessment is provided at **Attachment 6.**

The report advises that the 'background noise' observations at each of the monitoring locations are impacted by birds, insects, cattle, local & distant traffic and distant aircrafts. At all locations, the quarry was not audible to the observer.

The following extract from the assessment report summarises the measured noise levels at the nominated receiver locations.

Plate 1 – Extract Noise Monitoring Report

Measurement Summary 6th Nov 2018								
	Start time	Elapsed time	LAFmax [dB]	LCeq [dB]	LAeq [dB]	LCeq-LAeq [dB]	LAF10 [dB]	LAF90 [dB]
R1	10:16:01 AM	0:15:00	69.7	51.1	46.4	4.7	49.0	34.4
R2	10:46:18 AM	0:15:00	59.9	46.0	39.6	6.3	42.6	26.3
R3	11:13:05 AM	0:15:00	52.2	44.4	33.1	11.3	35.3	27.1
R4	09:02:55 AM	0:15:00	53.6	44.4	37.5	6.9	40.7	32.4
R6	09:40:29 AM	0:15:00	72.5	51.4	46.4	5.0	45.6	32.5
Top of Quarry	08:23:08 AM	3:31:55	90.6	85.0	82.0	2.9	83.0	81.1

Note:
The above results are the ambient noise levels and includes noise from the rural surroundings and quarry noise if audible.

The conclusion of the report goes on to advise as follows:

> *"A noise monitoring survey was conducted to assess compliance of quarry operational noise levels at the Northern Rivers Quarry and Asphalt quarry at Blakebrook. Measurements were undertaken with calibrated noise monitoring equipment and conducted in general accordance with procedures laid down in Australian Standard AS 1055.1-1997 and the NSW Industrial Noise Policy.*
>
> *The Blakebrook Quarry operates under EPL No. 3384. Condition L6.1 stipulates that noise from the premises must not exceed 35dB(A) LAeq,15min during the day (7am to 6pm) Monday to Saturday.*
>
> *Measurements were conducted at 5 receiver locations while the quarry was operating under load conditions. The quarry was not audible at the receiver locations.*
>
> *The quarry operational noise levels (LAeq,15min) were not able to be accurately assessed at residential receiver monitoring locations as the quarry noise was not audible.*

It is estimated from the recorded LA90,15 min levels and observations, that the quarry noise levels are below the Project Specific Noise Level of 35 dB(A) Leq,15mins at Receiver locations 1, 2, 3, 4 and 6."

LCC has approached DPE with respect to adjusting the terms of the approval to better address the noise monitoring findings for the site.

NOISE – OPERATION CONDITIONS

Schedule 3 – Condition 4 (Noise Monitoring)

Condition

The Proponent must:

(a) implement best practice management to minimise the construction, operational and road transportation noise of the project;

(b) minimise the noise impacts of the project during meteorological conditions when the noise criteria in this approval do not apply (see Appendix 5);

(c) carry out noise monitoring (at least every 3 months or as otherwise agreed with the Secretary) to determine whether the project is complying with the relevant conditions of this approval; and

(d) regularly assess noise monitoring data and modify and/or stop operations on site to ensure compliance with the relevant conditions of this approval, to the satisfaction of the Secretary.

Note: Required frequency of noise monitoring may be reduced if approved by the Secretary.

Compliance Statement

Noise monitoring is completed on an annual basis in November consistent with previous monitoring periods. In 2018, no complaints were received with respect to noise generation at the quarry. Accordingly, LCC is of the view that more frequent monitoring is not warranted.

NOISE – MANAGEMENT PLAN

Schedule 3 – Condition 5 (Noise Management Plan)

Condition

The Proponent must prepare a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:

(a) be prepared in consultation with the EPA;

(b) be submitted to the Secretary within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary;

(c) describe the measures to be implemented to ensure:

- *compliance with the noise criteria and operating conditions of this approval;*
- *best practice management is being employed; and*
- *the noise impacts of the project are minimised during meteorological conditions under which the noise criteria in this approval do not apply [see Appendix 5];*

(d) describe the proposed noise management system; and

(e) include a monitoring program to be implemented to measure noise from the project against the noise criteria in Table 2.

The Proponent must implement the Noise Management Plan as approved from time to time by the Secretary.

Compliance Statement

The Noise and Blast Management Plan (Rev 3.1) was updated in August 2018 and submitted to DPE on 24 August 2018. The report was approved by DPE on 28 August18.

BLASTING – IMPACT ASSESSMENT CRITERIA

Schedule 3 – Condition 6 (Blast Parameters)

Condition

The Proponent must ensure that blasting on site does not cause any exceedance of the criteria in Table 3.

Table 3: Blasting Criteria

Receiver	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Any residence on privately-owned land	120	10	0%
	115	5	5% of the total number of blasts over a period of 12 months

However, these criteria do not apply if the Proponent has a written agreement with the relevant owner to exceed the limits in Table 3, and the Proponent has advised the Department in writing of the terms of this agreement.

Note: In early 2016, agreement was reached with the owner of Receiver 9 (located at Lot 8 DP 240441) concerning noise monitoring results at that property. DPE was advised of this agreement in May 2016. Accordingly, the above assessment criteria do not apply to Receiver 9.

Compliance Statement

a) Environmental Assessment Predictions

The environmental assessments concluded that compliance with the above criteria should be able to be achieved during operation.

b) Monitoring Results

Blasting occurred on 6 occasions in 2018, with formal blast monitoring occurring at combinations of the following locations:

- MP1 – [redacted] Nimbin Road
- MP 2 - [redacted] Boorie Creek Road
- MP 3 - [redacted] Nimbin Road

A summary of the blast monitoring results is provided within **Table 3,** with full blast reports contained within **Attachment 7.** As indicated, each of the blasts met the required environmental parameters for Ground Vibration and Airblast Overpressure. Blasting also:

- did not exceed 2 blasts per month as specified within Schedule 3 - Condition 7; and
- occurred between 10am and 3pm, Monday – Friday as required by Schedule 3 - Condition 1.

Table 3 – 2018 Blast Monitoring Results

Date	Blast #	Time	Ground Vibration mm/sec *(Limit – 5mm/sec)*			Airblast Overpressure dB(Lin Peak) *(Limit – 115dB(Lin Peak))*		
			Monitor #			Monitor #		
			1	2	3	1	2	3
05.02.18	32	13.05	<TL*	2.50mm/s	1.10mm/s	<TL**	104.2dBL	109.5dBL
09.04.18	33	14.27	-	0.93mm/s	1.44mm/s	-	104.9dBL	105.5dBL
12.06.18	34	14.38	0.51mm/s	<TL*	1.16mm/s	98.8dBL	<TL**	98.8dBL
18.06.18	34	12.20	-	1.03mm/s	2.05mm/s	-	104.9dBL	109.2dBL
18.07.18	35	14.41	-	<TL*	<TL*	-	<TL**	<TL**
12.09.18	36	14.58	-	<TL*	<TL*		<TL**	<TL**
			* TL = Equipment Trigger Level (0.51mm/s)			**TL = Equipment Trigger Level (110dBL)		

With respect to the blasts completed on 12 June 2018 and 18 June 2018, we note that the records indicate that these were both 'Blast 34'. The blast contractor advises that on 12/6/18, they could not access the second part of the drilled area due to wet conditions. They then returned the following week and loaded and fired the second area. As such, it was technically the same blast, they used the same blast numbering (BL 34). We note that no other blasts were completed within the month and accordingly the quarry remained within the allowable limit as specified in Schedule 3 Condition 7.

BLASTING – FREQUENCY

Schedule 3 – Condition 7 (Number of Blasts)

Condition

The Proponent may carry out a maximum of 2 blasts per month, unless an additional blast is required following a blast misfire. This condition does not apply to blasts required to ensure the safety of the quarry or workers on site.

Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the quarry.

Compliance Statement

As illustrated in **Table 3**, blasting frequency has not exceeded 2 blasts in any given month.

BLASTING - OPERATION CONDITIONS

Schedule 3 – Condition 8 (Blast Management)

Condition

During blasting operations, the Proponent must:
(a) implement best practice management to: protect the safety of people and livestock; protect public or private infrastructure and property from damage; and minimise the dust and fume emissions;
(b) operate a suitable system to enable the local community to get up-to-date information on the proposed blasting schedule on site; and
(c) carry out regular monitoring to determine whether the project is complying with the relevant conditions of this approval, to the satisfaction of the Secretary.

Compliance Statement

The updated Noise and Blast Management Plan completed in 2018 includes management measures relating to the these matters.

BLASTING – MANAGEMENT PLAN

Schedule 3 – Condition 9 (Blast Management Plan)

Condition

The Proponent must prepare a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:
(a) be submitted to the Secretary for approval within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary;
(b) describe the measures to be implemented to ensure compliance with the blast criteria and operating conditions of this approval;
(c) include measures to manage flyrock to ensure the safety or people and livestock and to protect property;
(d) include a monitoring program for evaluating and reporting on compliance with the blasting criteria in this approval;

(e) include local community notification procedures for the blasting schedule, in particular to nearby residences; and
(f) include a protocol for investigating and responding to complaints related to blasting operations.
The Proponent must implement the Blast Management Plan as approved from time to time by the Secretary.

Compliance Statement

The Noise and Blast Management Plan (Rev 3.1) was updated and submitted to DPE on 18 July 2018. DPE endorsed the updated Management Plan on 28 August 2018.

AIR QUALITY - IMPACT ASSESSMENT CRITERIA

Schedule 3 – Condition 10 (Air Quality)

Condition

The Proponent must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not cause exceedances of the criteria in Table 4 at any residence on privately-owned land.

Table 4: Air quality criteria

Pollutant	Averaging Period	Criterion	
Particulate matter < 10 µm (PM_{10})	Annual	[a,d] 25 µg/m³	
Particulate matter < 10 µm (PM_{10})	24 hour	[b] 50 µg/m³	
Total suspended particulates (TSP)	Annual	[a,d] 90 µg/m³	
[c] Deposited dust	Annual	[b] 2 g/m²/month	[a,d] 4 g/m²/month

Notes to Table 4:

a) Cumulative impact (i.e. increase in concentrations due to the project plus background concentrations due to all other sources).

b) Incremental impact (i.e. increase in concentrations due to the project alone, with zero allowable exceedances of the criteria over the life of the project.

c) Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air – Determination of Particulate Matter - Deposited Matter - Gravimetric Method.

d) Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.

e) "Reasonable and feasible avoidance measures" includes, but is not limited to, the operational requirements in conditions 11, 12 and 13 to develop and implement an air quality management system that ensures operational responses to the risks of exceedance of the criteria.

Compliance Statement

Dust monitoring stations are established at three sites around the Quarry NW, SW and East. Results from the 2018 monitoring period is provided at **Attachment 8**. A review of this

documentation confirms that the monitoring has been completed in accordance with the required schedule of 30 days (+/- 2 days).

In addition, in response to a request from DPE, a High Volume Air Sampling Assessment (HVAS) was completed to ascertain the particulate concentrations. The HVAS Assessment concluded that the air quality is '*well below the ambient standards*'. A copy of this assessment is provided at **Attachment 9**.

As indicated in **Table 4**, annual results comply with the applicable annual average suspended solids criteria of 4. g/m²/month. It is noted that the 2018 Air Quality Management plan confirms 'ash' as being the key measure for air quality associated with the Quarry.

Table 4 – Air Quality

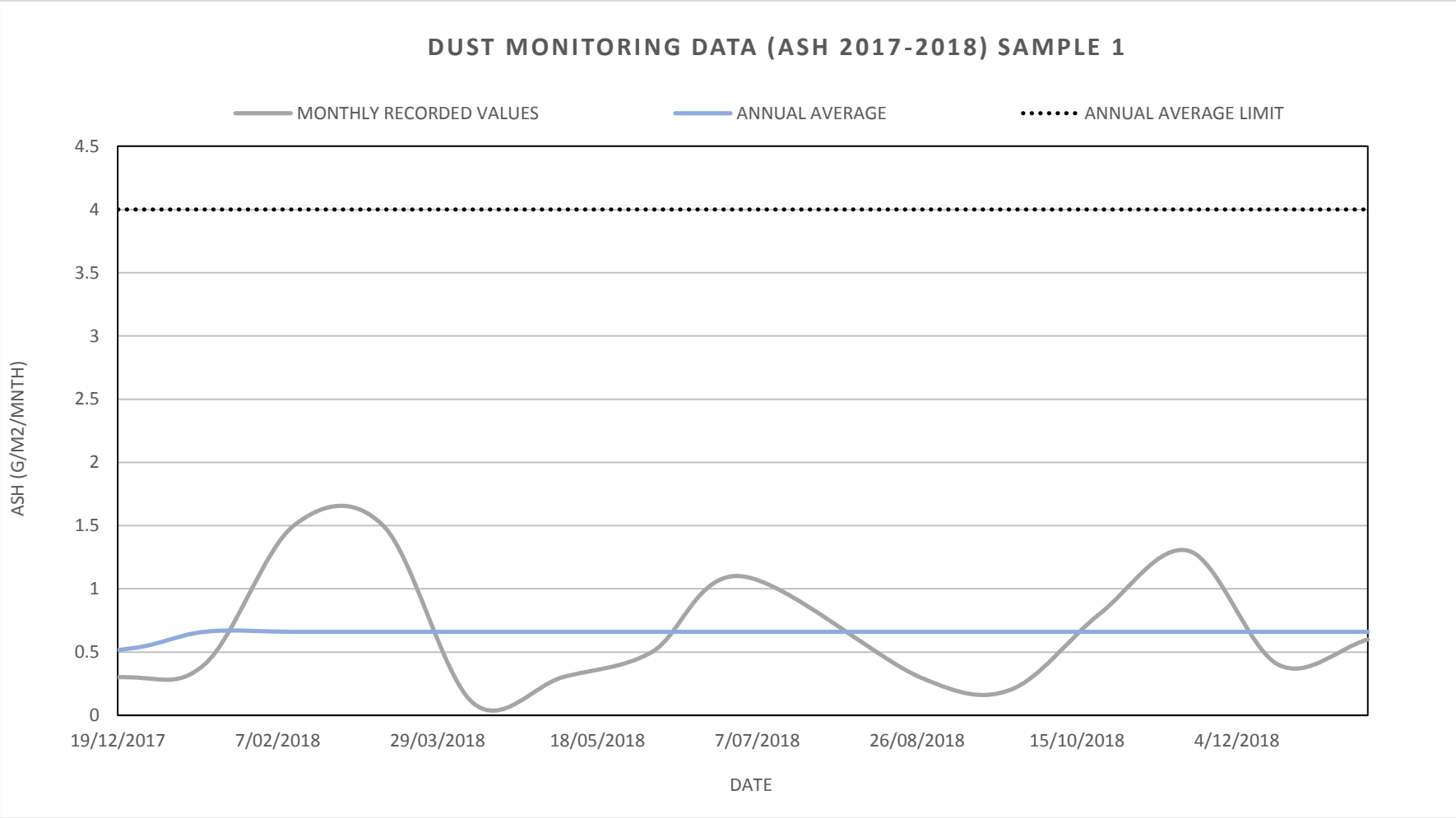
Pollutant	Averaging Period	Criterion	Blakebrook 2018 Results (Average)
Particulate Matter < 10 µm (PM10)	Annual	25 µg/m³	[1]NA
Particulate Matter < 10 µm (PM10)	24 Hour	50 µg/m³	[1]NA
Total suspended particulates (TSP)	Annual	90 µg/m³	[1]NA
Deposited Dust	Annual	Max 4g/m²/month	**Ash**
			0.77

Notes to Table 4:

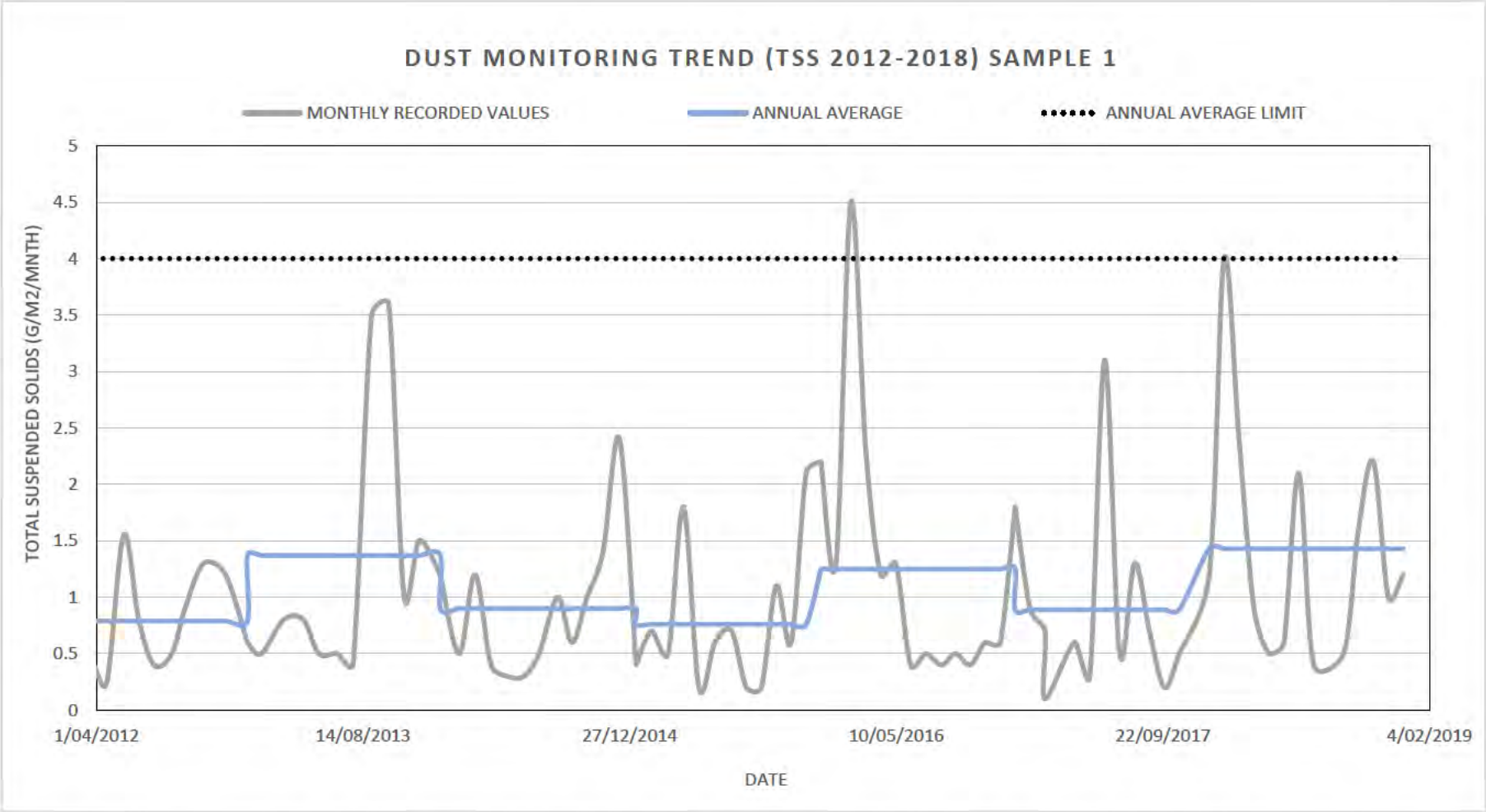
1. Ecotech Pty Ltd undertook HVAS) monitoring for inhalable particulates (PM_{10}). Results indicate that the air quality is well below the ambient standards. No additional monitoring required. Refer to Attachment 9.

The following charts illustrate the data associated with the following:

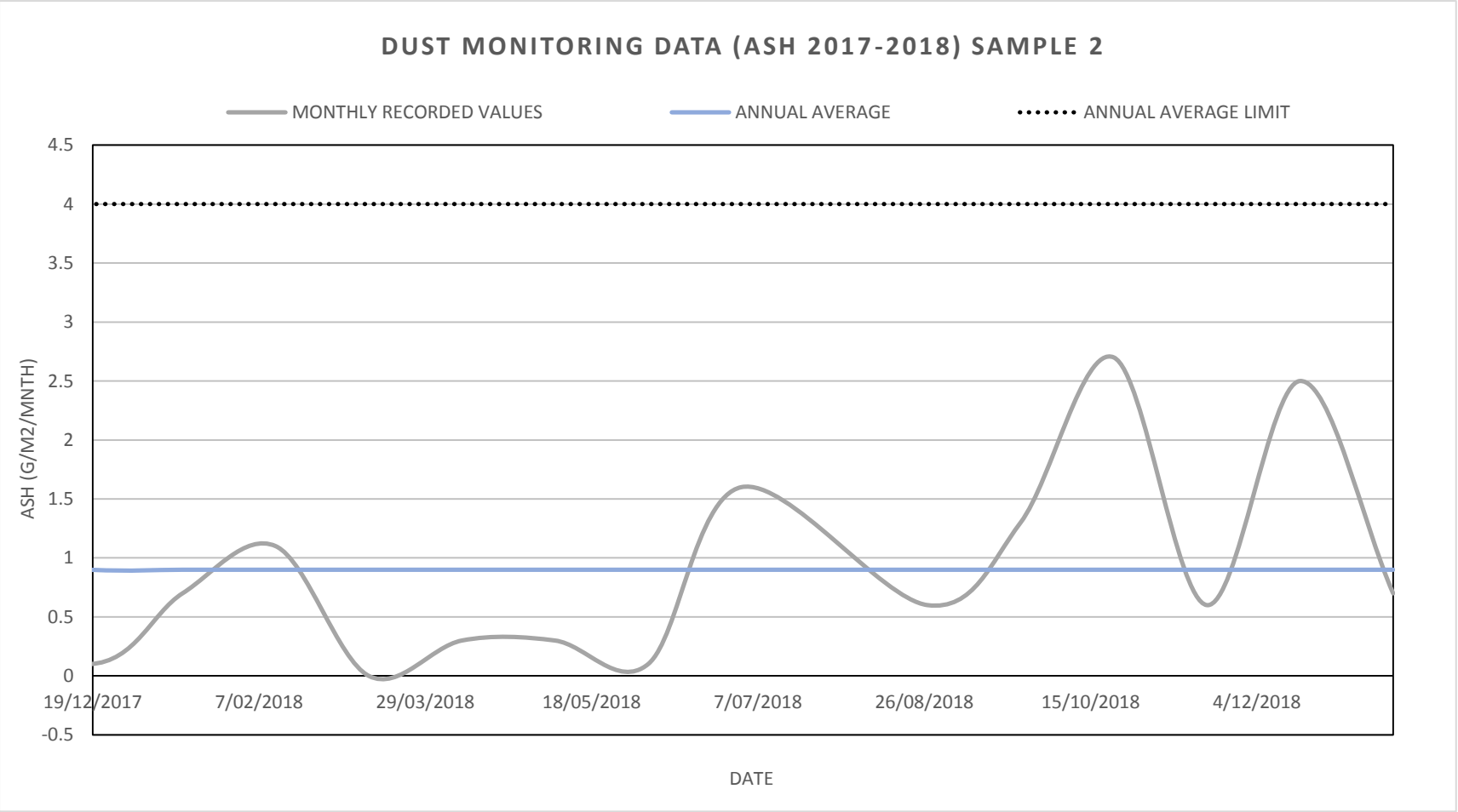
- Dust Monitoring Data (Ash 2017 - 2018) Sample 1
- Dust Monitoring Data (TSS 2012 - 2018) Sample 1
- Dust Monitoring Data (Ash 2017 - 2018) Sample 2
- Dust Monitoring Data (TSS 2012 - 2018) Sample 2
- Dust Monitoring Data (Ash 2017 - 2018) Sample 3
- Dust Monitoring Data (TSS 2012 - 2018) Sample 3



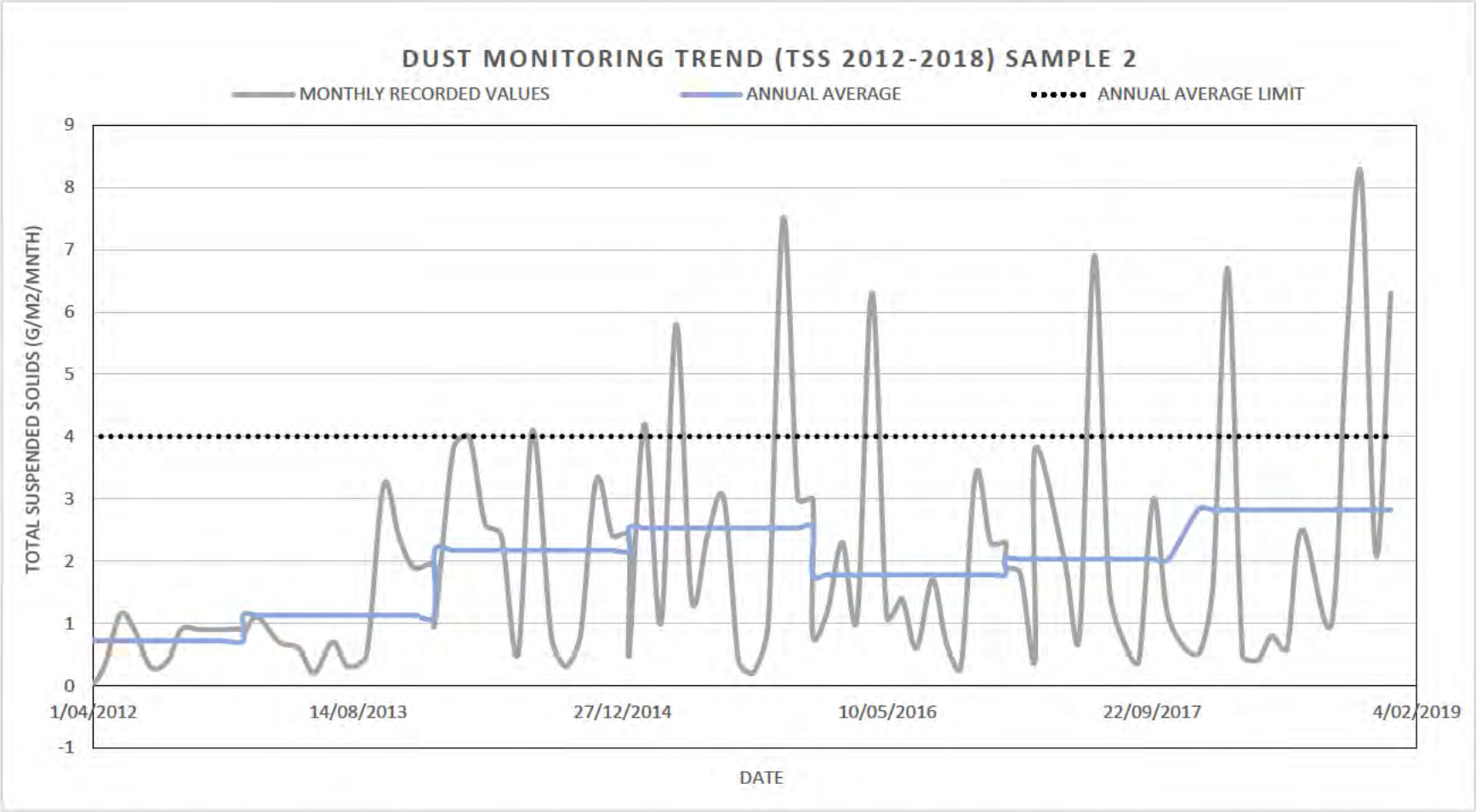
Notes: The above represents the total collected Ash per g/m²/month between the years of 2017 – 2018 at sample point 1, which are all well below the acceptable limit of 4g/m²/month. Due to the nature and composition of the hard rock resource, and the many pollutants that can makeup 'insoluble solids', ash will be used as the indicator of quarry dust contribution at sample point 1 (Air Quality Management plan v 3.1).



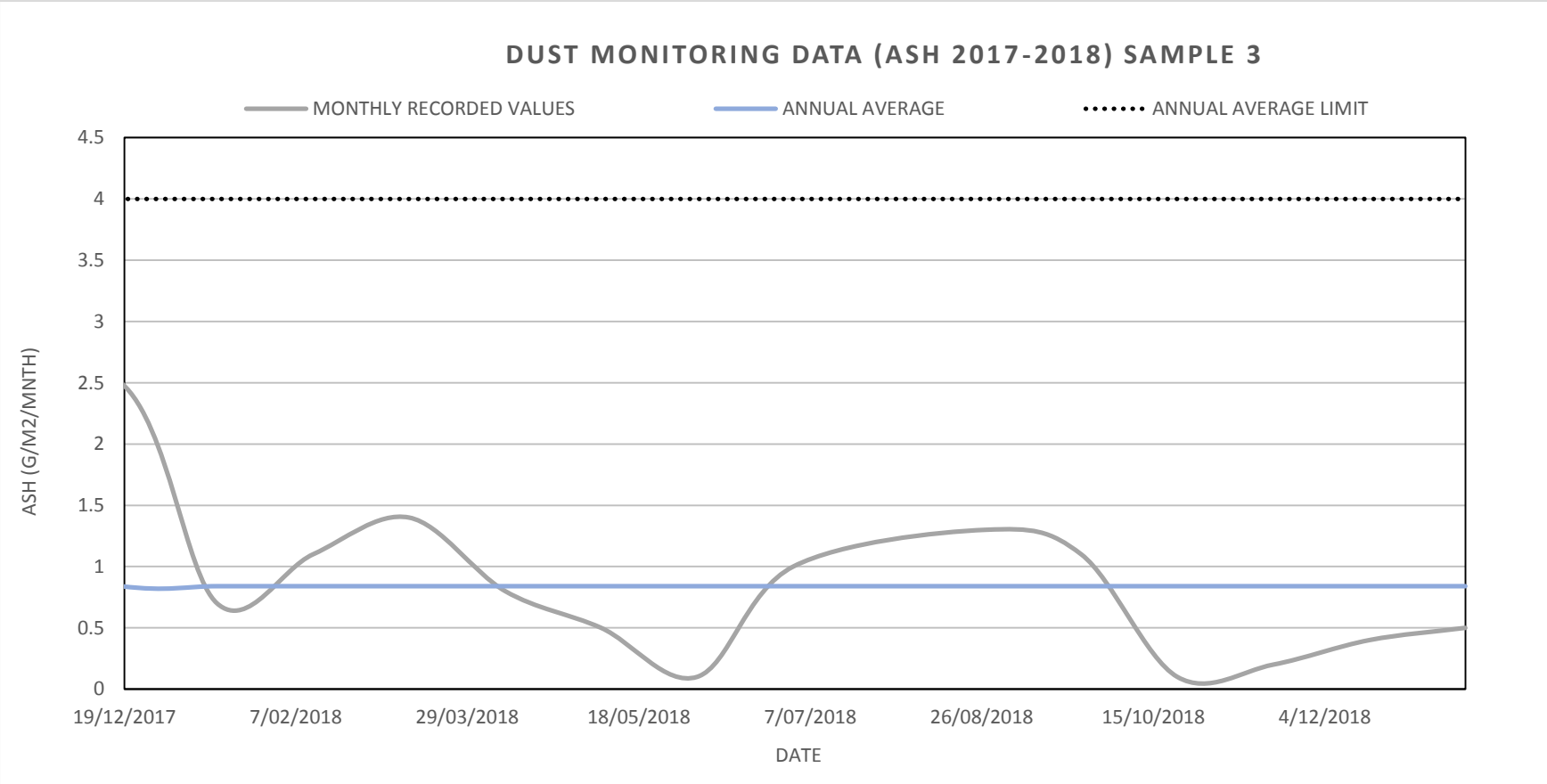
Notes: The above represents the Total Suspended Solid's (TSS) collected monthly from 2012-2018 at Sample Point 1 as completed historically by LCC. This arrangement was an oversight, as the earlier Air Quality Management Plan (2011) states that the deposited dust result is to be taken using the 'ash' result (rather than TSS). However, for the purpose of consistency between AEMR's a trend graph has been provided for the TSS.



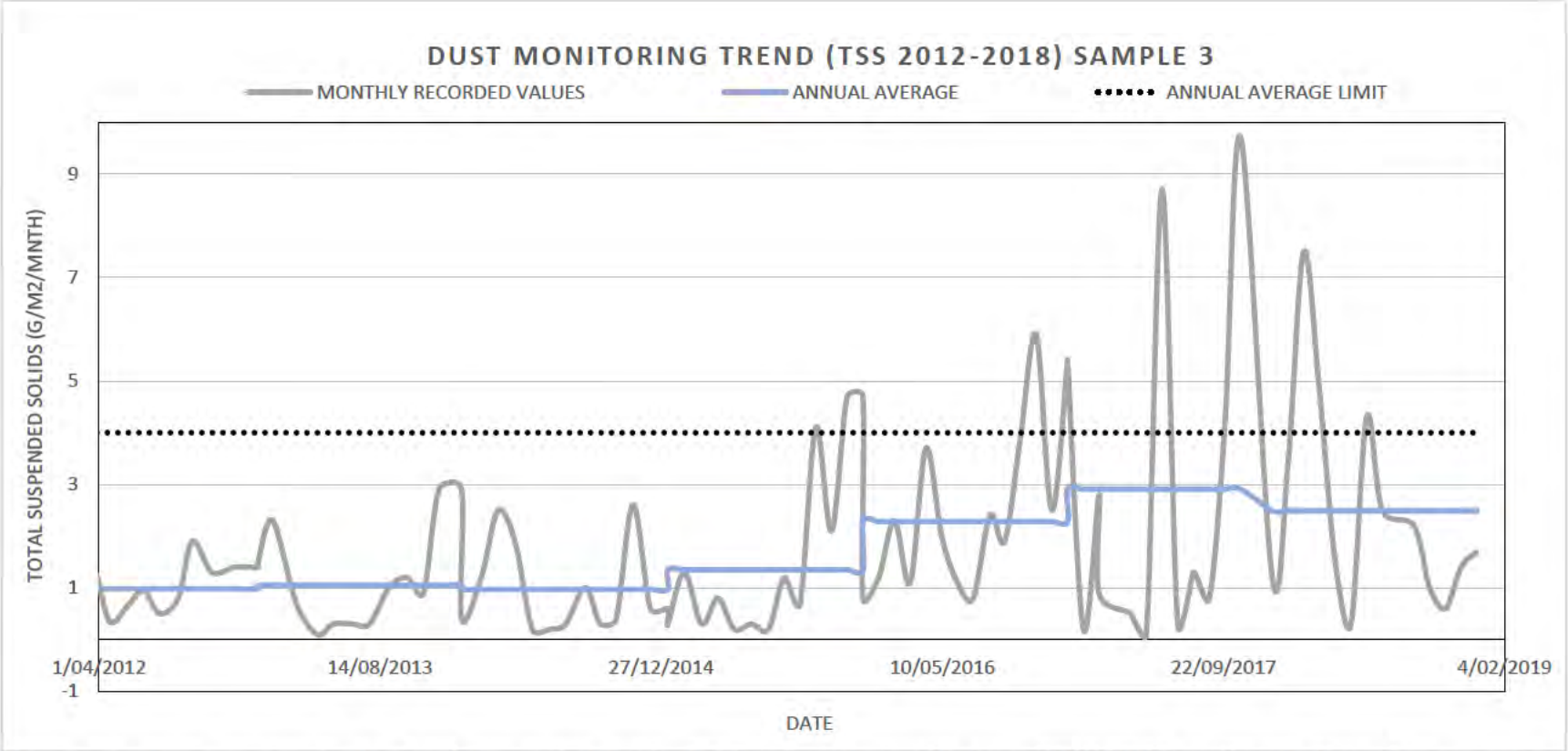
Notes: The above represents the total collected Ash per g/m²/month between the years of 2017 – 2018 at sample point 2, which are all well below the acceptable limit of 4g/m²/month. Due to the nature and composition of the hard rock resource, and the many pollutants that can makeup 'insoluble solids', ash will be used as the indicator of quarry dust contribution at sample point 2 (Air Quality Management plan v 3.1).



Notes: The above represents the Total Suspended Solid's (TSS) collected monthly from 2012-2018 at Sample Point 2 as completed historically by LCC. This arrangement was an oversight, as the earlier Air Quality Management Plan (2011) states that the deposited dust result is to be taken using the 'ash' result (rather than TSS). However, for the purpose of consistency between AEMR's a trend graph has been provided for the TSS.



Notes: The above represents the total collected Ash per g/m²/month between the years of 2017 – 2018 at sample point 3, which are all well below the acceptable limit of 4g/m²/month. Due to the nature and composition of the hard rock resource, and the many pollutants that can makeup 'insoluble solids', ash will be used as the indicator of quarry dust contribution at sample point 3 (Air Quality Management plan v 3.1).



Notes: The above represents the Total Suspended Solid's (TSS) collected monthly from 2012-2018 at Sample Point 1 as completed historically by LCC. This arrangement was an oversight, as the earlier Air Quality Management Plan (2011) states that the deposited dust result is to be taken using the 'ash' result (rather than TSS). However, for the purpose of consistency between AEMR's a trend graph has been provided for the TSS.

OPERATING CONDITIONS

Schedule 3 – Condition 11 (Air Quality Management)

Condition

The Proponent must:

(a) implement best practice management to minimise the dust emissions of the project;

(b) regularly assess meteorological and air quality monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this approval;

(c) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see note d under Table 4);

(d) monitor and report on compliance with the relevant air quality conditions in this approval; and

(e) minimise the area of surface disturbance and undertake progressive rehabilitation of the site, to the satisfaction of the Secretary.

Compliance Statement

The updated the Air Quality Management Plan incorporates suitable management measures relating to the above matters.

AIR QUALITY - MANAGEMENT PLAN

Schedule 3 - Condition 12 (Air Quality Management Plan)

Condition

The Proponent must prepare an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:

(a) be submitted to the Secretary for approval within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary;

(b) describe the measures to be implemented to ensure: compliance with the air quality criteria and operating conditions of this approval; best practice management is being employed; and the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events;

(c) describe the proposed air quality management system;

(d) include an air quality monitoring program that: is capable of evaluating the performance of the project; includes a protocol for determining any exceedances of the relevant conditions of approval; and effectively supports the air quality management system.

The Proponent must implement the approved Air Quality Management Plan as approved from time to time by the Secretary.

Compliance Statement

LCC updated the Air Quality Management Plan for the Quarry in August 2018. The updated Plan was endorsed by DPE 28 on August 2018.

METEOROLOGICAL MONITORING

Schedule 3 – Condition 13 (Weather Station)

Condition

For the life of the project, the Proponent must ensure that there is a suitable meteorological station operating in the vicinity of the site that complies with the requirements in the Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales guidelines.

Compliance Statement

A meteorological weather station was installed on site on 12 February 2018.

GREENHOUSE GAS EMISSIONS

Schedule 3 - Condition 14 (Greenhouse Gas Emissions)

Condition

The Proponent must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site.

Compliance Statement

The vehicle fleet associated with the quarry, currently focuses on achieving US EPA Tier 3 Emission Standards and, where possible within budget limitations, aspires to Tier 4.

WATER SUPPLY

Schedule 3 - Condition 15 (Water Supply)

Condition

The Proponent must ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of operations under the approval to match its available water supply, to the satisfaction of the Secretary.

Compliance Statement

Noted. No water was required to be imported to the site in 2018.

WATER DISCHARGES

Schedule 3 - Condition 16 (Water Discharge)

Condition

The Proponent must comply with the discharge limits in any EPL, or with section 120 of the POEO Act.

Compliance Statement

No water discharge has occurred in the 2018 calendar year.

GROUNDWATER ASSESSMENT

Schedule 3 - Condition 17 (Groundwater Assessment)

Condition

The Proponent must undertake a detailed groundwater assessment to the satisfaction of the Secretary. This assessment must be:

(a) prepared by a suitably qualified expert in consultation with DPI Water;

(b) submitted to the Secretary for approval by 30 December 2018;

(c) approved by the Secretary before any extraction below 105 m AHD in the northern pit or below 118.5 m AHD in the southern pit;

(d) adequately assess groundwater resources affected by the northern and southern pits, to the proposed full extraction depths of those pits;

(e) adequately assess all groundwater impacts associated with proposed extraction;

(f) provide data for predicted groundwater pit inflows during and following extraction; and

(g) propose management measures to address pit inflows and impacts to groundwater resources.

The Proponent must implement the management measures proposed in the groundwater assessment to the satisfaction of the Secretary.

Compliance Statement

a) Ground Water Assessment

Work was ongoing on this assessment in 2018, with various updates provided to DPE relating to progress. An extension was granted by the DPE requiring the Detailed Groundwater Assessment to be submitted to DPE not later than 15 March 2019. As indicated in Section 1.4.6, LCC is awaiting a response from the Natural Resources Assessment Regulator. Once this is received, LCC and DPE will be in the position to finalise the report.

b) Schedule 3 - Condition 17(c)

DPE issued a 'show cause' notice on 7 March 2018 with respect to compliance with Schedule 3 – Condition 17(c). LCC provided information in response on 23 March 2018. Upon review of the documentation provided by LCC, DPE advised on 3 September 2018 as follows:

> *"The Department has now finalised its investigation and has determined to take no official enforcement action against LCC on this occasion. In taking this approach, the Department has considered the information supplied by LCC in the show cause response letter dated 23 March 2018 and taken into account that the current AHD measurements fall within the original EA predictions of 101 —100 m AHD."*

SOIL AND WATER MANAGEMENT

Schedule 3 - Condition 18 (Intercept of Groundwater)

Condition

If groundwater is encountered during quarrying operations in the South Pit under EA (Mod 1), the Proponent must cease quarrying operations until authorised to recommence by the Secretary.

Compliance Statement

Groundwater was not encountered during the operation of the Quarry in 2018.

Schedule 3 - Condition 19 (Soil and Water Management Plan)

Condition

The Proponent must prepare a Soil and Water Management Plan for the project to the satisfaction of the Secretary. This plan must:

(a) be prepared by suitably qualified and experienced person/s approved by the Secretary;

(b) be prepared in consultation with the EPA and DPI Water;

(c) be submitted to the Secretary for approval within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary; and

(d) include a:

(i) Site Water Balance that includes:

details of:

- *sources and security of water supply;*
- *water use and management onsite;*
- *any off-site water transfers; and*
- *reporting procedures; and*
- *measures to be implemented to minimise clean water use on site;*

(ii) Surface Water Management Plan, that includes:

- *a program for obtaining detailed baseline data on surface water flows and quality in water bodies that could potentially be affected by the project;*
- *a detailed description of the surface water management system on site including the:*
- *clean water diversion system;*
- *erosion and sediment controls;*
- *dirty water management system; and*
- *water storages; and*
- *a program to monitor and report on:*
    - *any surface water discharges;*
    - *the effectiveness of the water management system,*
    - *the quality of water discharged from the site to the environment;*
    - *surface water flows and quality in local watercourses;*

(iii) Groundwater Management Plan that includes:

- *a provision that requires the Proponent to obtain appropriate water licence(s) to cover the volume of any unforeseen groundwater inflows into the quarry from the quarry face or floor; and*
- *a monitoring program to manage potential impacts, if any, on any alluvium and associated surface water source near the proposed extraction area that includes:*
    - *identification of a methodology for determining threshold water level criteria;*
    - *contingency measures in the event of a breach of thresholds; and*
    - *a program to regularly report on monitoring.*

The Proponent must implement the approved Soil and Water Management Plan as approved from time to time by the Secretary.

Compliance Statement

a) Soil and Water Management Plan

LCC worked progressively on this document throughout 2018. DPE granted an extension to LCC for the completion of the updated Soil and Water Management Plan to 13 February 2019. LCC submitted the update plan on 12 February 2019, with final revisions submitted on 5 March 2019. The delay in finalising the document was linked to the need to utilise information prepared in association with the Groundwater Assessment.

b) Site Water Balance

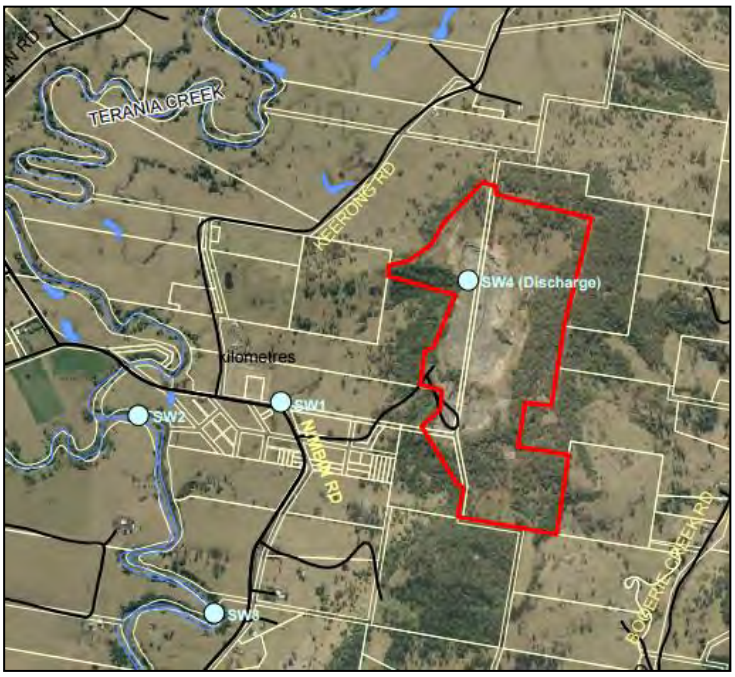
LCC engaged Gilbert and Sullivan to prepare the 2018 Site Water Balance, a copy of which is provided at **Attachment 10**. The report concludes that during the 2017 annual return period *"rainfall captured and stored within the quarry catchment provided sufficient supply for all on-site (not-potable) water usage*".

c) Surface Water Monitoring Results

Monitoring Stations

Surface water monitoring stations were established in June 2012 at four locations on the western side of the quarry in the locations illustrated on **Plate 2.**

Plate 2 – Water Sampling Points



Sampling Results - SW1, SW2 & SW3

Sampling was only undertaken on one occasion (December 2018) due to difficulties associated with accessing the nominated sampling sites (due to a combination of land ownership and topographic reasons). **Attachment 11** documents the full monitoring results. whilst the tables and figures below illustrate the key reporting parameters of pH, Total Suspended Solids (TSS), and Oil & Grease for the years 2013 – 2018.

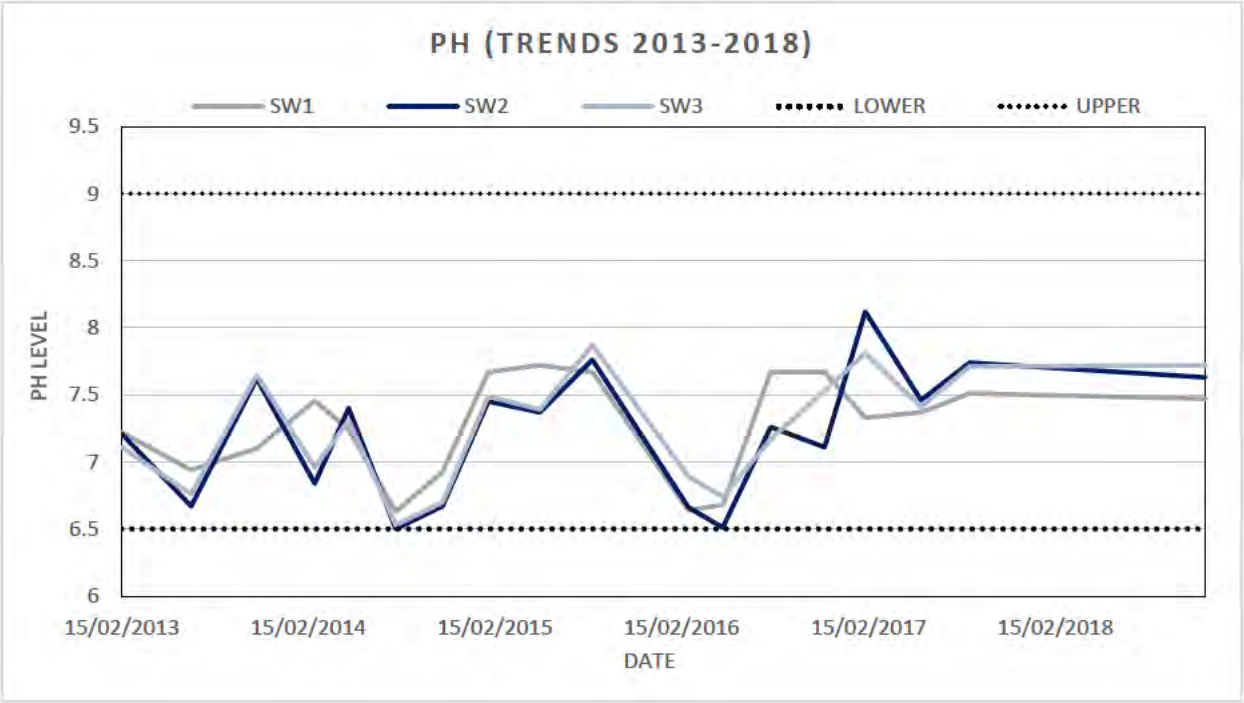
During 2018 LCC was in the process of developing and finalising a new SWMP with revised and accessible monitoring locations. In this regard, no landholder access agreements were previously in place relating to accessing sampling points. Furthermore, sampling at the licence boundary discharge locations (as opposed to the spill way of the sediment dam) were also not accessible.

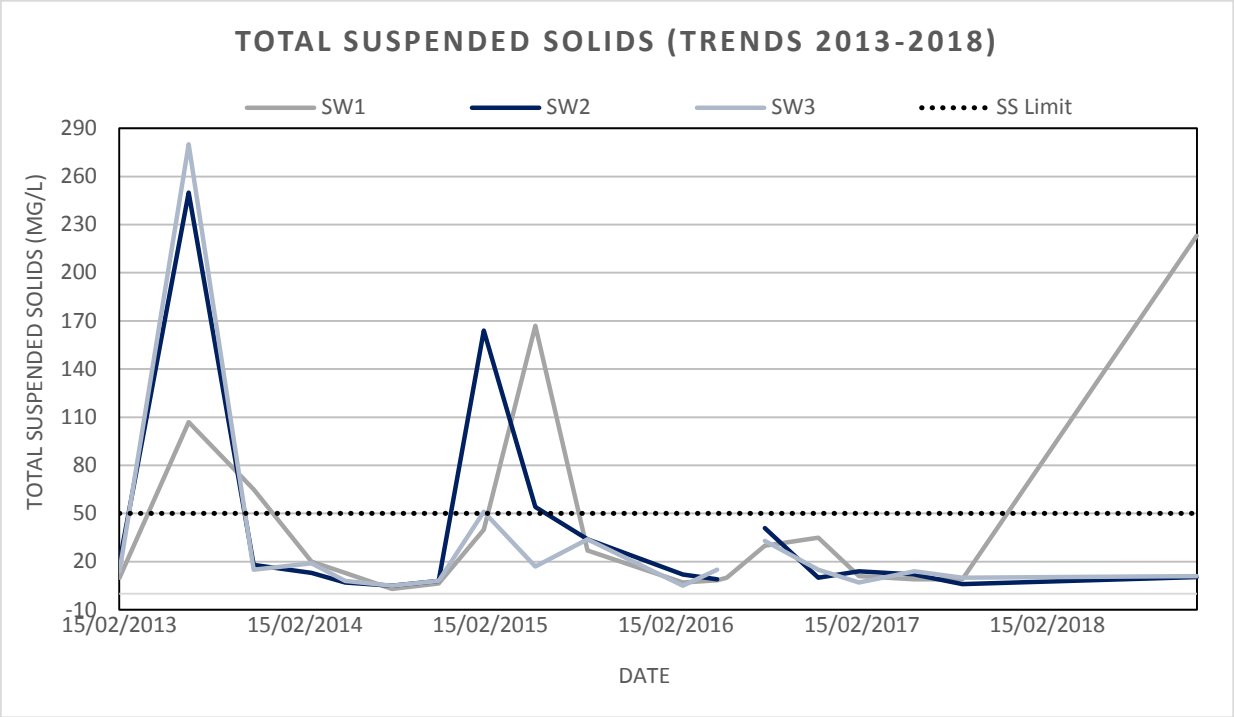
Given that monitoring locations are beyond the boundaries of the site and any flow crosses a number of land parcels not associated with the Quarry, the results should be used for

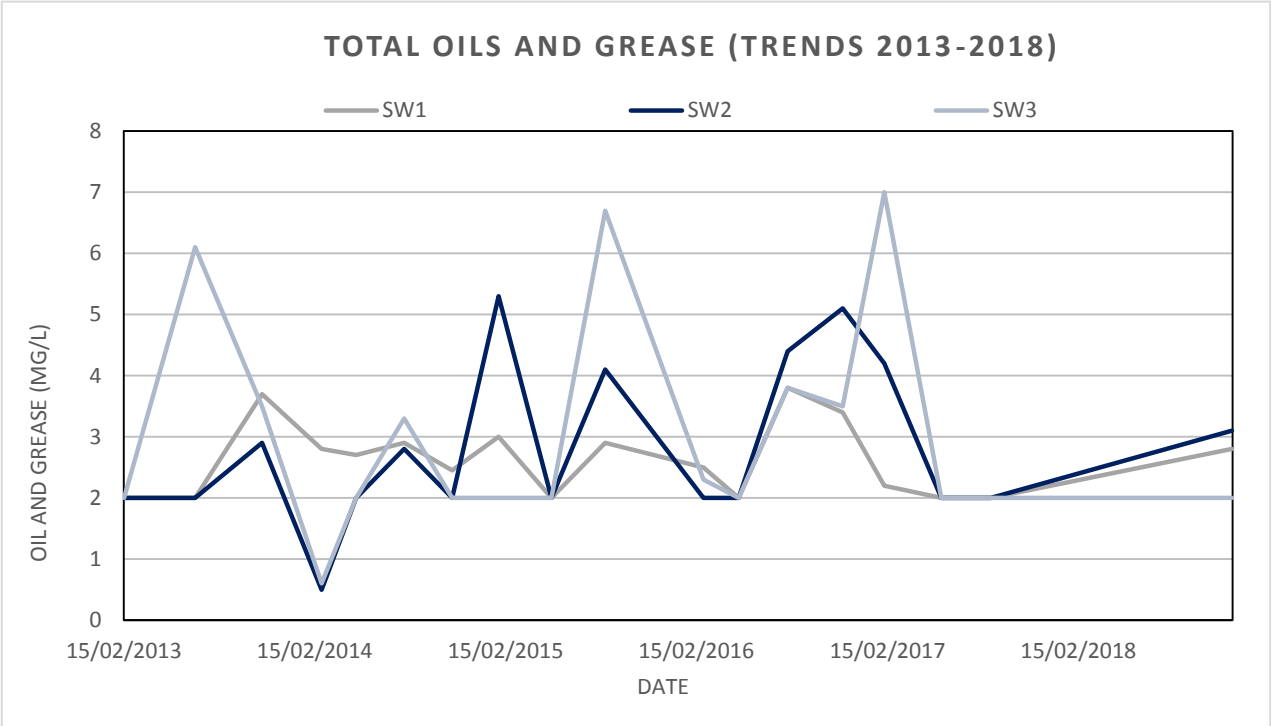
general background determination purposes only. The new SWMP should ensure improved compliance moving forward. We note also that no discharge occurred during 2018, accordingly the likelihood of environmental harm associated with the above is low.

Table 5 – Surface Water Monitoring

Analysis	ANZECC (Trigger Values for Freshwater)	Blakebrook Quarry 2018 (Average results)
pH units	6.5-9.0	7.600
Conductivity (µs/cm)	1500	436.000
Nitrate (NO_3)	0.7	<0.005
Aluminium (A1)	0.055	0.180
Total Arsenic (As)	0.024	0.004
Cadmium (Cd)	0.0002	<0.001
Chromium (Cr)	n/s	<0.001
Copper (Cu)	0.0014	0.001
Mercury (Hg)	0.0006	<0.0005
Nickel (Ni)	0.011	0.002
Oil and Grease	No visible sheen or detectable odour	2.95 (mg/L)
Total Suspended Solids (mg/L)	50*	81.500
Lead (Pb)	0.0034	<0.001
Zinc (Zn)	0.008	0.006




TOTAL SUSPENDED SOLIDS (TRENDS 2013-2018)
SW1
SW2
SW3
SS Limit
TOTAL SUSPENDED SOLIDS (MG/L)
290
260
230
200
170
140
110
80
50
20
-10
15/02/2013
15/02/2014
15/02/2015
15/02/2016
15/02/2017
15/02/2018
DATE


TOTAL OILS AND GREASE (TRENDS 2013-2018)
SW1
SW2
SW3
OIL AND GREASE (MG/L)
8
7
6
5
4
3
2
1
0
15/02/2013
15/02/2014
15/02/2015
15/02/2016
15/02/2017
15/02/2018
DATE

Sampling Results - SW4

SW4 is typically sampled only at time of water discharge. No discharge has occurred in 2018 and, accordingly, no records are provided for this sampling point.

Trends and Observations

The results for 2018 broadly fit within the trends of 2013 – 2018. These results must be considered in the context of the characteristics of the discharge point from the quarry – namely an informal dirt gully located within a property utilised for cattle grazing

d) Ground Water Monitoring Results & Notices of Exceedance

Quarterly ground water monitoring results are provided at **Attachment 14** and within Table 6, below. As indicated, exceedances to the Groundwater Monitoring Results have occurred on the following occasions:

- May 2018;
- July 2018;
- October 2018; and
- December 2018.

The groundwater monitoring results indicated that (to varying degrees) the sample results exceeded the trigger levels relating to Conductivity, Aluminium, Copper, Zinc, pH and Nickel.

The results for June, September and December were each reported to DPE promptly after LCC received the results. The April results were not reported, due to an oversight by previous quarry personnel.

As part of the notification processes, a copy of the report titled 'Bioregional Assessment of Water Resources of Clarence Bioregion' (**Attachment 13**) was provided to DPE. For the September results, the following clarification was provided by LCC:

> *"(the) Regional assessment of groundwater quality for the Clarence-Moreton bioregion...indicates that majority of the monitoring results for the site are below the maximum ranges found within the groundwater of basalt geology of the region (pages 43-49) therefore we consider these exceedances minor as a result of the natural geological environment*
>
> *Council is currently undertaking a detailed groundwater assessment due to Department of Planning and Environment by end of this year. As part of this investigation Council plans to re-evaluate background groundwater triggers for the site."*

On each occasion the DPE advised that it did not intend to take further action on this matter.

Table 6 – Groundwater Sampling Results

Sample Point	Date	pH	Total Suspended Solids (mg/L)	Total oils & grease (mg/L)	Nitrate (mg/L/N)	Silver (mg/L)	Aluminium (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Lead (mg/L)	Selenium (mg/L)	Zinc (mg/L)	Mercury (mg/L)
ANZECC Trigger Values for Freshwater		6.5-9.0			0.7		0.055	0.024	0.0002		0.0014			0.0011	0.0034		0.008	0.0006
NHMRC Trigger Values for Drinking Water		6.5-8.5			50		0.2	0.007	0.002		2			0.02	0.01		3	0.001
GW1 BQS1-S	6/04/2018	6.65	28	<1	0.039	<0.001	0.24	<0.001	<0.001	0.002	0.005	0.792	0.142	0.01	0.001	<0.002	0.024	<0.0005
	27/06/2018	6.81	25	8	0.036	<0.001	0.188	<0.001	<0.001	0.002	0.004	1.292	0.175	0.008	0.001	<0.005	0.027	<0.0005
	20/09/2018	7.12	541	4.3	0.049	<0.001	0.634	<0.001	<0.001	0.001	0.003	2.73	0.151	0.008	0.004	<0.002	0.096	<0.0005
	5/12/2018	6.84	252	<2	0.029	<0.001	0.487	<0.001	<0.001	0.001	0.004	2.627	0.151	0.008	0.002	<0.002	0.043	<0.005
GW2 BQS1-I	6/04/2018	7.93	20	<1	0.042	<0.001	0.107	0.001	<0.001	<0.001	0.002	0.382	0.112	0.005	<0.001	<0.002	0.038	<0.0005
	27/06/2018	8.12	540	4	0.019	<0.001	1.084	0.001	<0.001	0.002	0.003	5.811	0.18	0.011	0.005	<0.005	0.143	<0.0005
	20/09/2018	8.1	205	5	0.046	<0.001	0.31	0.001	<0.001	0.001	0.003	0.678	0.097	0.004	0.002	<0.002	0.052	<0.0005
	5/12/2018	8.16	448	<2	<0.005	<0.001	0.804	0.001	<0.001	0.001	0.006	4.888	0.157	0.007	0.004	<0.002	0.142	<0.0005
GW3 BQS1-D	6/04/2018	8.27	78	<1	0.046	<0.001	0.343	0.001	<0.001	0.002	0.003	1.021	0.045	0.009	0.001	<0.002	0.048	<0.0005
	27/06/2018	8.3	207	3	0.077	<0.001	0.599	0.001	<0.001	0.002	0.003	2.155	0.059	0.009	0.004	<0.005	0.08	<0.0005
	20/09/2018	8.43	436	7.4	0.044	<0.001	0.961	0.001	<0.001	0.003	0.003	3.93	0.079	0.01	0.005	<0.002	0.125	<0.0005
	5/12/2018	8.29	264	<2	0.075	<0.001	0.356	0.001	<0.001	0.001	0.005	1.102	0.049	0.01	0.004	<0.002	0.048	<0.0005
GW4 BQN1-B	6/04/2018	7.07	3	4	<0.005	<0.001	<0.005	0.002	<0.001	<0.001	<0.001	1.891	0.152	<0.001	<0.001	<0.002	0.005	<0.0005
	27/06/2018	7.13	6	4	<0.005	<0.001	0.003	0.003	<0.001	<0.001	0.002	2.104	0.15	<0.001	<0.001	<0.005	0.011	<0.0005
	20/09/2018	7.22	2	3.7	<0.005	<0.001	<0.005	0.002	<0.001	<0.001	<0.001	1.74	0.15	<0.001	<0.001	<0.002	0.003	<0.0005
	5/12/2018	7.04	21	<2	<0.005	<0.001	<0.005	0.003	<0.001	<0.001	<0.001	1.705	0.148	<0.001	<0.001	<0.002	0.003	<0.0005
GW5 BQN1-A	6/04/2018	9.94	164	<1	0.11	<0.001	0.948	0.001	<0.001	0.004	0.005	0.899	0.077	0.005	0.001	<0.002	0.017	<0.0005
	27/06/2018	11.34	125	<2	0.356	0.001	1.936	0.001	<0.001	0.008	0.019	2.062	0.113	0.037	0.002	<0.005	0.041	<0.0005
	20/09/2018	9.53	132	1.7	0.076	<0.001	0.536	0.001	<0.001	0.004	0.003	0.5	0.049	0.003	0.001	<0.002	0.009	<0.0005
	5/12/2018	9.7	151	<2	0.374	<0.001	0.952	0.001	<0.001	0.004	0.006	0.94	0.066	0.004	0.001	<0.002	0.016	<0.0005
GW6 BQN1-D	6/04/2018	8.71	36	4	0.014	<0.001	0.424	0.003	<0.001	0.003	0.103	1.342	0.029	0.005	<0.001	<0.002	0.031	<0.0005
	28/06/2018	9.1	21	3	0.068	<0.001	0.476	0.003	<0.001	0.005	0.043	1.749	0.033	0.009	<0.001	<0.005	0.04	<0.0005
	20/09/2018	9.06	3100	2.9	0.04	<0.001	44.5	0.009	0.001	0.102	0.796	158	1.315	0.3	0.007	0.004	1.23	<0.0005
	5/12/2018	8.9	89	<2	0.096	<0.001	1.112	0.004	<0.001	0.005	0.119	4.069	0.074	0.01	0.001	<0.002	0.066	<0.0005
GW7 BQN2-B	6/04/2018	11.01	65	<1	0.222	<0.001	0.213	0.004	<0.001	<0.001	0.001	0.073	0.055	0.001	<0.001	<0.002	0.01	<0.0005
	28/06/2018	11.07	101	3	0.277	<0.001	0.947	0.004	<0.001	0.001	0.006	0.535	0.026	0.005	0.001	<0.005	0.045	<0.0005
	20/09/2018	11.22	107	1.5	0.268	<0.001	0.181	0.003	<0.001	0.001	0.001	0.097	0.004	0.001	<0.001	<0.002	0.006	<0.0005
	5/12/2018	9.21	17	2	0.068	<0.001	0.094	0.003	<0.001	<0.001	0.002	0.059	0.013	0.001	<0.001	<0.002	0.004	<0.0005
GW8 BQN2-A	6/04/2018	8.23	16	<1	0.085	<0.001	0.102	0.002	<0.001	0.002	0.013	0.187	0.03	0.023	<0.001	<0.002	0.027	<0.0005
	28/06/2018	8.13	45	8	0.147	<0.001	0.189	0.004	<0.001	0.003	0.01	0.301	0.039	0.011	0.001	<0.005	0.021	<0.0005
	20/09/2018	8.05	13	1.6	0.081	<0.001	0.059	0.002	<0.001	0.001	0.009	0.157	0.039	0.013	<0.001	<0.002	0.012	<0.0005
	5/12/2018	8.01	344	3	0.023	<0.001	0.451	0.005	<0.001	<0.001	0.007	1.484	0.11	0.009	0.002	<0.002	0.02	<0.0005
GW9 BQN2-D	6/04/2018	8.81	15	<1	0.06	<0.001	0.079	0.002	<0.001	<0.001	0.002	0.129	0.015	<0.001	<0.001	<0.002	0.012	<0.0005
	28/06/2018	8.85	773	4	0.072	<0.001	0.559	0.002	<0.001	0.001	0.013	4.528	0.065	0.008	0.005	<0.005	0.169	<0.0005
	20/09/2018	8.94	30	1.5	0.054	<0.001	0.077	0.002	<0.001	<0.001	0.003	0.12	0.007	0.001	<0.001	<0.002	0.01	<0.0005
	5/12/2018	8.92	470	3	0.073	<0.001	0.228	0.002	<0.001	<0.001	0.005	1.526	0.036	0.003	0.002	<0.002	0.057	<0.0005

TRANSPORT

MONITORING OF PRODUCT TRANSPORT

Schedule 3 - Condition 20 (Record of Truck Movements)

Condition

The Proponent must keep accurate records of all laden truck movements to and from the site (including time of arrival and dispatch) and publish a summary of records on its website every 6 months.

Compliance Statement

Suitable records are available indicating the laden truck movements to the site. A review of the LCC Website on 26 March 2019 indicates that records are provided for the 2018 calendar year.

ROAD UPGRADES

Schedule 3 - Condition 21 (Road Upgrades)

Condition

The Proponent must undertake the following road upgrade works generally in accordance with the recommendations in the EA, and to the satisfaction of the RMS:

a) upgrade the intersection of the Quarry Access and Nimbin Road to a 'Type AUR Intersection Treatment', prior to 31 December 2010;

b) upgrade the guard rails on the approaches to Booerie Creek Bridge prior to 31 December 2010;

c) upgrade the Booerie Creek Road and Nimbin Road intersection to a 'Type BAR Right Turn Treatment on the Through Road' prior to 31 December 2010;

d) upgrade the Wilson Street and Nimbin Road intersection to a 'Type CHR Right Turn Bay Treatment' prior to 31 December 2010; and

e) re-align Nimbin Road and the Quarry Access intersection to meet the AUSTROADS sight distance requirements for vehicles travelling in both directions through the intersection prior to 31 December 2011.

Note: The road works must be constructed in accordance with the relevant RMS or AUSTROADS standards, and signposted and lit in accordance with AS:1742 – Manual of Uniform Traffic Control Devices and AS/NZ 1158:2005 – Lighting for Roads and Public Spaces.

Compliance Statement

All required roadworks were completed prior to 2018.

OPERATING CONDITIONS

Schedule 3 - Condition 22 (Road Upgrades)

Condition

The Proponent must:

(a) restrict truck movements from the quarry to an average of 50 laden trucks a day until all road upgrades works required by condition 20 of Schedule 3, are met or unless otherwise approved by the Secretary;

(b) ensure that all laden trucks entering or exiting the site have their loads covered, with the exception of loads consisting solely of boulders greater than one tonne in weight;

(c) ensure that all laden trucks exiting the site are cleaned of material that may fall from vehicles, before leaving the site; and

(d) use its best endeavours to ensure that appropriate signage is displayed on all trucks used to transport product from the project so they can be easily identified by road users.

Compliance Statement

All roadworks referenced in Item (a) are complete.

The Operational Traffic Management Plan (refer Schedule 3 Condition 3.23) includes measures to address Items (b), (c) and (d).

TRAFFIC MANAGEMENT PLAN

Schedule 3 - Condition 23 (Traffic Management Plan)

Condition

The Proponent must prepare a Traffic Management Plan for the project to the satisfaction of the

Secretary. This plan must:

a) be prepared in consultation with the RMS and Council;

b) be submitted to the Secretary for approval within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary;

c) describe the processes in place for the control of truck movements entering and exiting the site;

d) include a Drivers' Code of Conduct that details the safe and quiet driving practices that must be used by drivers transporting products to and from the quarry;

e) describe the measures to be put in place to ensure compliance with the Drivers' Code of Conduct; and

f) propose measures to minimise the transmission of dust and tracking of material onto the surface of the public road from vehicles leaving the quarry.

The Proponent must implement the approved Traffic Management Plan as approved from time to time by the Secretary.

Compliance Statement

LCC updated the Operational Traffic Management Plan for the Quarry in August 2018. The updated Plan was endorsed by DPE on 28 August 2018.

ABORIGINAL HERITAGE MANAGEMENT PLAN

Schedule 3 - Condition 24 (Aboriginal Heritage Management Plan)

Condition

The Proponent must prepare an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. The plan must:

(a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;

(b) be prepared in consultation with OEH and the Registered Aboriginal Parties;

(c) be submitted to the Secretary for approval within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary; and

(d) include a description of the measures that would be implemented to:

- *protect, monitor and manage known sites of archaeological significance;*
- *manage any new Aboriginal objects or relics that are discovered;*
- *store Aboriginal heritage items salvaged on site; and*
- *ensure ongoing consultation and involvement of the Registered Aboriginal Parties in the conservation and management of Aboriginal cultural heritage on the site.*

The Proponent must implement the approved Aboriginal Heritage Management Plan as approved from time to time by the Secretary.

Compliance Statement

LCC updated the Aboriginal Heritage Management Plan for the Quarry in August 2018. The updated Plan was endorsed by DPE on 28 August 2018. A copy of the updated Plan is available on the LCC Website.

Schedule 3 - Condition 25 (Aboriginal Heritage)

Condition

If any item or object of Aboriginal heritage significance is identified on site, the Proponent must ensure that:

(a) all work in the immediate vicinity of the suspected Aboriginal item or object ceases immediately;

(b) a 10 m buffer area around the suspected item or object is cordoned off; and

(c) the OEH is contacted immediately.

Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the National Parks and Wildlife Act 1974.

Compliance Statement

LCC advises that no items or objects of Aboriginal Cultural Heritage significance were identified in 2018. The updated the Aboriginal Heritage Management Plan (refer Condition 3.25) includes an Unexpected Finds Procedure, which will further guide staff actions in the event that an item or object of Aboriginal Cultural Heritage is discovered.

BIODIVERSITY OFFSET STRATEGY

Schedule 3 – Condition 5 (Habitat Offsets)

(Note: Condition numbering appears to be an error within the Notice of Determination)

Condition

The Proponent must:

(a) implement the Biodiversity Offset Strategy (see Table 5);

(b) ensure that adequate resources are dedicated towards the implementation of this strategy;

(c) provide appropriate long term security for the offset area; and

(d) provide a timetable for the implementation of the offset strategy prior to 30 June 2010, or as otherwise agreed by the Secretary, to the satisfaction of the Secretary.

Table 5: Biodiversity Offset Strategy

Offset Areas	Minimum Size
On-site offset (Protection Zone in Appendix 4)	17.6 hectares
Off-site offset (within Lismore local government area, and not already within a conservation area)	45 hectares
Total	62.6 hectares

Note: Mechanisms to provide appropriate long-term security to the land within the Biodiversity Offset Strategy in accordance with the NSW Biodiversity Offset Policy for Major Projects 2014, include a BioBanking Agreement, Voluntary Conservation Agreement or an alternative mechanism that provides for a similar conservation outcome.

Compliance Statement

The formal Biodiversity Offset Strategy was prepared and submitted to DPE on 20 December 2019. DPE provided comments in early 2019.

62.6 ha of environmental offsets are required to be provided in total (17.6ha 'on-site' and 45ha 'off-site'). The process for transferring the 45 hectares of 'offsite' environmental offsets to the

quarry site is complete and Blakebrook Quarry is now located on Lot 201 DP 1227138, Parish of Blakebrook, County of Rous.

In order to demonstrate the ongoing protection of the required total quantum of offset area, LCC has made an application to rezone the 45ha of 'off-site' offsets from a rural zone to E2 Environmental Conservation Zone pursuant to the Lismore Local Environmental Plan 2012.

REHABILITATION OBJECTIVES

Schedule 3 - Condition 26 (Rehabilitation Strategy)

Condition

The Proponent must rehabilitate the site to the satisfaction of the Secretary. This rehabilitation must be generally consistent with the rehabilitation strategy in the EIS and must comply with the objectives in Table 6.

Table 6: Rehabilitation Objectives

Feature	Objective
All areas of the site affected by the project	• Safe • Hydraulically and geotechnically stable • Non-polluting • Fit for the intended post-mining land use(s) • Final landform integrated with surrounding natural landforms as far as is reasonable and feasible, and minimising visual impacts when viewed from surrounding land
Surface Infrastructure	• Decommissioned and removed, unless otherwise agreed by the Secretary
Quarry benches and pit floor	• Landscaped and vegetated using native tree and understorey species
Final Void	• Minimise the size, depth and slope of the batters of the final void • Minimise the drainage catchment of the final void

Compliance Statement

No site rehabilitation was required, or occurred, in 2018.

PROGRESSIVE REHABILITATION

Schedule 3 - Condition 27 (Progressive Rehabilitation)

Condition

The Proponent must rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed *areas that are not active and which are not ready for final rehabilitation.*

Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to future re-disturbance

Compliance Statement

No site rehabilitation was required, or occurred, in 2018

BIODIVERSITY AND REHABILITATION MANAGEMENT PLAN

Schedule 3 - Condition 28 (Biodiversity Management Plan)

Condition

The Proponent must prepare a Biodiversity and Rehabilitation Management Plan for the project to the satisfaction of the Secretary. This plan must:

(a) be prepared by a suitably qualified expert;

(b) be prepared in consultation with OEH and Council;

(c) be submitted to the Secretary for approval within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary;

(d) provide details of the conceptual final landform and associated land uses for the site;

(e) describe how the implementation of the Biodiversity Offset Strategy will be integrated with the overall rehabilitation of the site;

(f) include a Koala Management Plan prepared in accordance with SEPP 44;

(g) include detailed performance and completion criteria for evaluating the performance of the Biodiversity Offset Strategy and rehabilitation of the site (including progressive rehabilitation), including triggers for any necessary remedial action;

(h) describe the short, medium and long term measures to be implemented to:

- *manage remnant vegetation and habitat on site, including within the Biodiversity Offset Strategy area; and*
- *ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;*

(i) include a detailed description of the measures described in paragraph (h) to be implemented over the next 3 years (to be updated for each 3 year period following initial approval of the plan) including the procedures to be implemented for:

- *maximising the salvage of environmental resources within the approved disturbance area, including tree hollows, vegetative and soil resources, for beneficial reuse in the enhancement of the offset area or site rehabilitation;*
- *restoring and enhancing the quality of native vegetation and fauna habitat in the biodiversity offset and rehabilitation areas through assisted natural regeneration, targeted vegetation establishment and the introduction of fauna habitat features;*
- *protecting vegetation and fauna habitat outside the approved disturbance area on-site, including core Koala habitat;*
- *minimising the impacts on native fauna, including undertaking pre-clearance surveys;*
- *establishing vegetation screening to minimise the visual impacts of the site on surrounding receivers;*
- *ensuring minimal environmental consequences for threatened species, populations and habitats;*
- *collecting and propagating seed;*
- *controlling weeds and feral pests*
- *controlling erosion; and*

- *managing bushfire risk;*

(j) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria;

(k) identify the potential risks to the successful implementation of the Biodiversity Offset Strategy, and include a description of the contingency measures to be implemented to mitigate these risks; and

(l) include details of who is responsible for monitoring, reviewing, and implementing the plan.

The Proponent must implement the Biodiversity and Rehabilitation Management Plan as approved from time to time by the Secretary.

Compliance Statement

The Biodiversity Rehabilitation Management Plan was submitted to DPE in August 2018. In 2019, following the approval of the BOS, the BRMP was again amended and submitted to DPE for approval. This was subsequently approved on 14 March 2019.

BIODIVERSITY AND REHABILITATION BOND

Schedule 3 - Condition 29 (Biodiversity and Rehabilitation Bond)

Condition

Within 6 months of the approval of the Biodiversity and Rehabilitation Management Plan, the Proponent must lodge a Biodiversity and Rehabilitation Bond with the Department to ensure that the Biodiversity Offset Strategy and rehabilitation of the site are implemented in accordance with the performance and completion criteria set out in the plan and the relevant conditions of this approval. The sum of the bond must be determined by:

(a) calculating the full cost of implementing the Biodiversity Offset Strategy;

(b) calculating the cost of rehabilitating all disturbed areas of the site, taking into account the likely surface disturbance over the next 3 years of quarrying operations; and

(c) employing a suitably qualified quantity surveyor or other expert to verify the calculated costs, to the satisfaction of the Secretary.

Notes:

Alternative funding arrangements for long term management of the Biodiversity Offset Strategy, such as provision of capital and management funding as agreed by OEH as part of a BioBanking Agreement, or transfer to conservation reserve estate can be used to reduce the liability of the Biodiversity and Rehabilitation Bond.

If capital and other expenditure required by the Biodiversity and Rehabilitation Management Plan is largely complete, the Secretary may waive the requirement for lodgement of a bond in respect of the remaining expenditure.

If the Biodiversity Offset Strategy and/or rehabilitation of the site area are completed (or partially completed) to the satisfaction of the Secretary, then the Secretary will release the bond (or relevant part of the bond). If the Biodiversity Offset Strategy and rehabilitation of the site are not completed to the satisfaction of the Secretary, then the Secretary will call in all or part of the bond, and arrange for the completion of the relevant work.

Compliance Statement

The applicable bond will be reviewed in 2019. The review will occur within 6 months of the completion of the final Biodiversity and Rehabilitation Management Plan and within 3 months of the Independent Environmental Audit (refer Schedule 3 – Condition 30).

Schedule 3 – Condition 30 (Review of Biodiversity Bond)

Condition

Within 3 months of each Independent Environmental Audit (see Condition 12 of Schedule 5), the Proponent must review, and if necessary revise, the sum of the Biodiversity and Rehabilitation Bond to the satisfaction of the Secretary. This review must consider the:

(a) effects of inflation;

(b) likely cost of implementing the Biodiversity Offset Strategy and rehabilitating all disturbed areas of the site (taking into account the likely surface disturbance over the next 3 years of the project); and

(c) performance of the implementation of the Biodiversity Offset Strategy and rehabilitation of the site to date.

Compliance Statement

The applicable bond will be reviewed in 2019. The review will occur within 3 months of the Independent Environmental Audit and within 6 months of the completion of the final Biodiversity and Rehabilitation Management Plan (refer Schedule 3 – Condition 29).

VISUAL

Schedule 3 – Condition 31 (Visual Impacts)

Condition

The Proponent must implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project to the satisfaction of the Secretary.

Compliance Statement

Quarry operations are located below the tree line and do not intrude on the landscape of visual character of the locality. LCC advises that they are not aware of any complaints with respect to visual impacts associated with the Quarry.

WASTE

Schedule 3 – Condition 32 (Waste Management)

Condition

The Proponent must:

(a) manage on-site sewage treatment and disposal in accordance with the requirements of its EPL, and to the satisfaction of the EPA and Council;

(b) minimise the waste generated by the project;

(c) ensure that the waste generated by the project is appropriately stored, handled, and disposed of; and

(d) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.

Compliance Statement

LCC advises that in 2018 waste management practices at the quarry involved the following:

- Waste generated by staff are separated into general waste and recyclables;
- Lismore City Council 'standard' waste collection service does not extend to the quarry. Accordingly, waste is delivered to the Wyrallah Road Waste Management Facility by quarry staff on an 'as needs' basis'.
- Used oil and chemicals (when applicable) drums / containers are transported to the Wyrallah Road Waste Management Facility by quarry staff on an 'as needs' basis'
- Crushed glass from the Wyrallah Road Waste Management Facility is mixed with quarry product road base. The EPA Licence has been varied to allow the acceptance of glass sand for this purpose.
- No waste (other than the glass product referenced above) is stored or processed on site.

Schedule 3 - Condition 33 (Waste Management)

Condition

Except as expressly permitted in an EPL, the Proponent must not receive waste at the site for storage, treatment, processing, reprocessing or disposal.

Compliance Statement

LCC advises that in 2018 the only waste product received and processed on the site is glass, which is mixed with quarry product and sold for road base.

LIQUID STORAGE

Schedule 3 – Condition 34 (Storage of Liquids)

Condition

The Proponent must ensure that all tanks and similar storage facilities (other than for water) are protected by appropriate bunding or other containment, in accordance with the relevant Australian Standards.

Compliance Statement

LCC advises that in 2018 there were no changes to the former methods of storing liquids, namely:

- A 20,000 litre self bunded fuel tank is provided on site within a bessa block bund;
- Oils and lubricants are stored in suitable containers with self contained bunding; and
- Chemicals associated with the on-site laboratory are stored within suitable containers within a bunded shed.

DANGEROUS GOODS

Schedule 3 - Condition 35 (Dangerous Goods)

Condition

The Proponent must ensure that the storage, handling, and transport of dangerous goods is done in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the Dangerous Goods Code.

Compliance Statement

Quarry stores include ethanol (for laboratory use), hydraulic and transmission fluids and oils. These liquids, in addition to diesel fuel, are stored as outlined in the assessment against Schedule 3 Condition 34.

Schedule 3 - Condition 36 (Fire)

Condition

The Proponent must:

(a) ensure that the project is suitably equipped to respond to any fires on site; and

(b) assist the Rural Fire Service and emergency services to the extent practicable if there is a fire in the vicinity of the site.

Compliance Statement

LCC advises that in 2018:

- The quarry was equipped with both fire extinguishers and water carts, with this equipment maintained on a regular basis.;
- No fires occurred on the quarry grounds; and
- The quarry was not called upon by the RFS to attend to any fires in the vicinity of the quarry.

Schedule 4 – Additional Procedures

NOTIFICATION OF LANDOWNERS

Schedule 4 - Condition 1 (Notification of Exceedance)

Condition

As soon as practicable, and no longer than 7 days, after obtaining monitoring results showing:

- *an exceedance of any criteria in Schedule 3, the Proponent must notify the affected landowners in writing of the exceedance, and provide regular monitoring results, at least every 3 months, to each affected landowner until the project is again complying with the relevant criteria; and*
- *an exceedance of any air quality criteria in Schedule 3, the Proponent must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and current tenants of the land (including the tenants of land which is not privately-owned).*

Compliance Statement

In the 2018 exceedances occurred with respect to the following criteria in Schedule 3:

- Schedule 3 - Condition 19 – Ground Water Monitoring Results

Given the nature of the exceedances, LCC determined that there were no landholders adversely impacted on these occasions. Accordingly, no notification of neighbours was required in 2018.

INDEPENDENT REVIEW

Schedule 4 – Condition 2 (Independent Review if Impacts)

Condition

If an owner of privately-owned land considers the project to be exceeding the relevant criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land. If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Proponent must:

(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:

- *consult with the landowner to determine his/her concerns;*
- *conduct monitoring to determine whether the project is complying with the relevant criteria in Schedule 3; and*
- *if the project is not complying with these criteria, then identify measures that could be implemented to ensure compliance with the relevant criteria; and*

(b) give the Secretary and landowner a copy of the independent review; and

(c) comply with any written requests made by the Secretary to implement any findings of the review.

Compliance Statement

No neighbours have requested an independent assessment of the impacts of the development on their land in 2018.

PROPERTY INSPECTIONS

Schedule 4 - Condition 3 (Baseline Dilapidation Reports)

Condition

Prior to 30 June 2010, the Proponent must advise all owners of privately-owned land within 2 kilometres of proposed blasting activities, and any other landowner nominated by the Secretary, that they are entitled to a property inspection to establish the baseline condition of the property.

Compliance Statement

All notifications and associated inspections required by this condition were completed prior to 2018.

Schedule 4 – Condition 4 (Property Investigations)

Condition

If the Proponent receives a written request for a property inspection from any such landowner, the Proponent must:

(a) commission a suitably qualified person, whose appointment has been approved by Secretary, to inspect and report on the condition of any building or structure on the land, and recommend measures to mitigate any potential blasting impacts; and

(b) give the landowner a copy of this property inspection report.

Note: It is preferable for the property inspection to be carried out prior to the commencement of blasting activities on the site, and the Proponent should facilitate this occurring wherever possible.

Compliance Statement

No landholder has requested an independent property investigation in 2018.

Schedule 4 - Condition 5 (Property Investigations)

Condition

If any owner of privately-owned land within 2 kilometres of proposed blasting activities, or any other landowner nominated by the Secretary, claims that his/her property, including vibration-sensitive infrastructure such as water supply or underground irrigation mains, has been damaged as a result of blasting at the project, the Proponent shall within 3 months of receiving this request:

(a) commission a suitably qualified person whose appointment has been approved by the Secretary to investigate the claim and prepare a property investigation report; and

(b) give the landowner a copy of the report.

If this independent investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damage to the satisfaction of the Secretary.

If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.

Compliance Statement

No landholder has requested an independent property investigation in 2018.

Schedule 5 – Environmental Management, Reporting & Auditing

ENVIRONMENTAL MANAGEMENT STRATEGY

Schedule 5 - Condition 1 (Environmental Management Strategy)

Condition

The Proponent must prepare an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:

(a) be submitted to the Secretary for approval within 6 months of the Secretary requiring preparation of the strategy by notice to the Proponent;

(b) provide the strategic framework for environmental management of the project;

(c) identify the statutory approvals that apply to the project;

(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;

(e) describe the procedures to be implemented to:

- *keep the local community and relevant agencies informed about the operation and*
- *environmental performance of the project;*
- *receive, record, handle and respond to complaints;*
- *resolve any disputes that may arise during the course of the project;*
- *respond to any non-compliance;*
- *respond to emergencies; and*

(f) include:

- *copies of any strategies, plans and programs approved under the conditions of this approval; and*
- *a clear plan depicting all the monitoring to be carried out under the conditions of this approval.*

The Proponent must implement any Environmental Management Strategy as approved from time to time by the Secretary.

Compliance Statement

LCC updated the Environmental Management Strategy for the Quarry in August 2018. The updated Plan was endorsed by DPE on 28 August 2018. A copy of the updated Plan is available on the LCC Website.

EVIDENCE OF CONSULTATION

Schedule 5 - Condition 2 (Consultation with Agencies)

Condition

Where consultation with any State or local agency is required by the conditions of this approval, the Proponent must:

(a) consult with the relevant agency prior to submitting the required document to the Secretary for approval;

(b) submit evidence of this consultation as part of the relevant document;

© describe how matters raised by the agency have been addressed and any matters not resolved; and

(d) include details of any outstanding issues raised by the agency and an explanation of disagreement between any agency and the Proponent.

Compliance Statement

The updated Environmental Management Strategy (refer Schedule 5 – Condition 1) includes a list of Consultation Agencies as required by various conditions of consent.

MANAGEMENT PLAN REQUIREMENTS

Schedule 5 - Condition 3 (Preparation of Management Plans)

Condition

The Proponent must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:

(a) detailed baseline data;

(b) a description of:
- *the relevant statutory requirements (including any relevant approval, licence or lease conditions);*
- *any relevant limits or performance measures/criteria; and*
- *the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;*

(c) a description of the measures that to be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;

(d) a program to monitor and report on the:
- *impacts and environmental performance of the project; and*
- *effectiveness of any management measures (see (c) above);*

(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;

(f) a program to investigate and implement ways to improve the environmental performance of the project over time;

(g) a protocol for managing and reporting any:
- *incidents;*
- *complaints;*
- *non-compliances with statutory requirements; and*
- *exceedances of the impact assessment criteria and/or performance criteria; and*

(h) a protocol for periodic review of the plan.

Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

Compliance Statement

As outlined herein, various Management Plans have been prepared and submitted to the Department for review in 2018. This AEMR has not reviewed the processes to develop these documents or the content or adequacy thereof, as it is assumed that the DPE review will assess each plan in accordance with the applicable conditions of approval.

APPLICATION OF EXISTING MANAGEMENT PLANS

Schedule 5 - Condition 4 (Application of Management Plans)

Condition

The Proponent must continue to apply existing approved management plans, strategies or monitoring programs that have most recently been approved under this approval, until the approval of a similar plan, strategy or program under this approval.

Compliance Statement

Noted.

REVISION OF STRATEGIES, PLANS & PROGRAMS

Schedule 5 - Condition 4 (Review of Strategies and Plans)

Note: Condition numbering appears to be an error within the approval notice.

Condition

Within 3 months of the submission of an:

(a) incident report under condition 9 below;

(b) Annual Review under condition 11 below;

(c) audit report under condition 12 below; and

(d) any modifications to this approval,

the Proponent must review the strategies, plans and programs required under this approval, to the satisfaction of the Secretary. The proponent must notify the Department in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary.

Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the project.

Compliance Statement

Issues associated with the reported exceedance to the groundwater monitoring results are being reviewed and addressed as part of the broader Groundwater Management Plan. Refer to the assessment against Schedule 3 - Condition 17 and Schedule 3 – Condition 18.

UPDATING AND STAGING OF STRATEGIES, PLANS OR PROGRAMS

Schedule 5 - Condition 5 (Update to Strategies and Plans)

Condition

To ensure that strategies, plans or programs required under this approval are updated on a regular basis, and that they incorporate any appropriate additional measures to improve the environmental performance of the project, the Proponent may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Proponent may also submit any strategy, plan or program required by this approval on a staged basis. The Secretary may approve a revised strategy, plan or program required under this approval, or the staged submission of any of these documents, at any time. With the agreement of the Secretary, the Proponent may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this approval. While any strategy, plan or program may be submitted on a staged basis, the proponent will need to ensure that the operations associated with the project are covered by suitable strategies, plans or programs at all times.

If the submission of any strategy, plan or program is to be staged; then the relevant strategy, plan or program must clearly describe the specific stage/s of the project to which the strategy, plan or program applies; the relationship of this stage/s to any future stages; and the trigger for updating the strategy, plan or program.

Compliance Statement

Noted. As indicated elsewhere, a range of updates to the Management Plans and Strategies have been submitted to DPE for endorsement in 2018.

ADAPTIVE MANAGEMENT

Schedule 5 – Condition 6 (Notification of Exceedance)

Condition

The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must as soon as becoming aware of any exceedance:

(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not reoccur;

(b) consider all reasonable and feasible options for remediation (where relevant);

(c) within 14 days of the exceedance occurring, submit a report to the Secretary describing these remediation options and any preferred remediation measures or other course of action; and

(d) implement remediation measures as directed by the Secretary; to the satisfaction of the Secretary.

Compliance Statement

As outlined against Schedule 3 - Condition 17, LCC provided required notifications to DPE with respect to the exceedance in Groundwater Monitoring outcomes on three (3) out of four (4) occasions.

COMMUNITY CONSULTATIVE COMMITTEE

Schedule 5 - Condition 7 (Community Consultative Committee)

Condition

The Proponent must establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Secretary. The CCC must be operated in general accordance with the Department's Community Consultative Committee Guidelines, November 2016 (or later version).

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.*
- *In accordance with the guidelines, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council and the local community.*

Compliance Statement

The CCC has met on two occasions in 2018 (March and November). Minutes from these meetings are provided at **Attachment 15** and are also available on the LCC Website. The CCC will be held annually in the future due to the lack of attendance. This approach was discussed and agreed at the November meeting and complies with the framework within the Community Consultative Committee Guidelines.

Schedule 5 - Condition 8 (Reporting of Incidents)

Condition

The Proponent must immediately notify the Secretary (using the contact name, email address and phone number provided by the Department from time to time) and any other relevant agencies of any incident.

Compliance Statement

Exceedances to the requirements of Schedule 3 have occurred on four (4) occasions in 2018, all of which relate to the groundwater monitoring results. A description of these events is provided within the Compliance Statements relative to Schedule 3 – Condition 19.

Table 6 summarises the timelines associated with the reporting of the event. As indicated, 3 of the 4 exceedances were reported promptly to the DPE, although there is generally a delay of a few days (as opposed to 'immediately' as required by the terms of the approval).

We note that Quarry personnel have changed since the April 2018 incident and that all subsequent exceedances have been reported as required.

Table 7 – Notice of Exceedance

Groundwater Results Exceeding Certain Trigger Limits	Date that LCC became aware of the exceedance / incident.	First Reported to DPE	Follow up reporting to DPE
April 2018	N/a	Did not occur	Did not occur
June 2018	10 July 2018	23 July 2018 - Included detailed technical justification	No follow-up reporting required.
September 2018	5 October 2018	19 October 2018 – Included detailed technical justification	No follow-up reporting required.
December 2018	23 December 2018	4 January 2018 – Included detailed technical justification (Note: Christmas / New Year holiday shutdown)	No follow-up reporting required.

Schedule 5 - Condition 9 (Reporting of Incidents)

Condition

Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested. This report must include the time and date of the incident, details of the incident, measures implemented to prevent re-occurrence and must identify any non-compliance with this approval.

Compliance Statement

Refer to comment against Schedule 5 - Condition 8.

REGULAR REPORTING

Schedule 5 - Condition 10 (Information to be Provided Online)

Condition

The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.

Compliance Statement

The information requirements as listed in Schedule 5 Condition 4 are available on the LCC website. **Attachment 16** provides a list of the documentation available as at 28 March 2019. As indicated, all required information was available on the website.

ANNUAL REVIEW

Schedule 5 - Condition 11 (Information to be Provided Online)

Condition

By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent must submit a review to the Department reviewing the environmental performance of the project to the satisfaction of the Secretary. This review must:

(a) describe the project (including any progressive rehabilitation) that was carried out in the previous calendar year, and the project that is proposed to be carried out over the current calendar year;

(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against the:

- *relevant statutory requirements, limits or performance measures/criteria;*
- *requirements of any plan or program required under this approval;*
- *monitoring results of previous years; and*
- *relevant predictions in the documents listed in condition 2(a) of Schedule 2;*

(c) evaluate and report on:

- *the effectiveness of the air quality and noise management systems; and*
- *compliance with the performance measures, criteria and operating conditions in this approval.*

(d) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;

(e) identify any trends in the monitoring data over the life of the project;

(f) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies;

(g) describe what measures will be implemented over the current calendar year to improve the environmental performance of the project.

The Proponent must ensure that copies of the Annual Review are submitted to Council and are available to the Community Consultative Committee (see condition 7 of Schedule 5) and any interested person upon request.

Compliance Statement

The 2018 Annual Review will be submitted to DPE in March 2019 in accordance with the adopted timeframes.

The 2018 Review has been restructured to provide clear reporting against each Condition within the approval. In addition, Section 3 Part 3.1 provides a summary of key matters which have arisen in the preparation of the 2018 Annual Review and the actions proposed to resolve these issues.

INDEPENDENT ENVIRONMENTAL AUDIT

Schedule 5 - Condition 12 (3 Year Independent Audit)

Condition

Within three years of the date of grant of this project approval, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission, commence and pay the full cost of an Independent Environmental Audit of the project. This audit must:

(a) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;

(b) include consultation with the relevant agencies and the CCC;

(c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL or necessary water licences for the project (including any assessment, strategy, plan or program required under these approvals);

(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;

(e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and

(f) be conducted and reported to the satisfaction of the Secretary.

Compliance Statement

The most recent Independent Environmental Audit was undertaken in December 2018 / January 2019 by GeoLINK. This document was finalised and issued to DPE on 14 February 2019.

Schedule 5 - Condition 13 (Implementation of Audit Recommendations)

Condition

Within 12 weeks of commencing this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of these recommendations as required. The Proponent must implement these recommendations, to the satisfaction of the Secretary.

Compliance Statement

The most recent Independent Environmental Audit was finalised and issued to DPE on 14 February 2019.

ACCESS TO INFORMATION

Schedule 5 - Condition 14 (Information to be Available Online)

Condition

Within 3 months of the determination of Modification 1, until the completion of all works, including rehabilitation and remediation the Proponent must:

(a) make the following information publicly available on its website:

- *the documents listed in condition 2(a) of Schedule 2;*
- *current statutory approvals for the project;*
- *all approved strategies, plans and programs required under the conditions of this approval;*
- *a comprehensive summary of the monitoring results of the project, reported in accordance with the specifications in any conditions of this approval, or any approved plans and programs;*

- *a complaints register, updated monthly;*
- *the annual reviews of the project;*
- *any independent environmental audit as described in condition 12 above, and the Proponent's response to the recommendations in any audit; and*
- *any other matter required by the Secretary; and*

(b) keep this information up-to-date, to the satisfaction of the Secretary.

Compliance Statement

Attachment 16 provides a schedule confirming that the information listed above is available on the LCC Website.

Attachment 17 provides a copy of the Complaint Register for 2018, with the register also available on the LCC website: With respect to the 2018 register, this has been updated on a monthly basis as required. We note that LCC advised that they are reviewing the content of the Register to ensure compliance with applicable privacy legislation.

Appendix 5 – Noise Compliance Assessment

APPLICABLE METEOROLOGICAL CONDITIONS

Appendix 5 - Condition 1 (Weather Parameters)

Condition

The noise criteria in Table 2 are to apply under all meteorological conditions except the following:

(a) wind speeds greater than 3 m/s at 10 m above ground level; or

(b) temperature inversion conditions between 1.5°C and 3°C/100 m and wind speed greater than 2 m/s at 10 m above ground level; or

(c) temperature inversion conditions greater than 3°C/100 m.

Compliance Statement

Noted

DETERMINATION OF METEOROLOGICAL CONDITIONS

Appendix 5 - Condition 2 (Meteorological Station)

Condition

Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station required under Condition 13 of Schedule 3.

Compliance Statement

The meteorological station was installed onsite in early 2018.

The 2018 Acoustic Assessment did not rely on this data. Rather, the assessment utilised data from Lismore Airport (as had been the case for all preceding assessments). LCC advises that this was an oversight and has been noted for future acoustic assessments.

Recommended Action: LCC adjust processes to ensure that future noise monitoring is conducted utilising the data collected from the on-site meteorological station. In March 2018, LCC formally advised the applicable contractor of this requirement.

Appendix 5 - Condition 3 (Timing of Assessment)

Condition

A noise compliance assessment must be undertaken within two months of commencing mining operations under EA (Mod 1). The assessment must be conducted by a suitably qualified and experienced acoustical practitioner and must assess compliance with the noise criteria in Table 2. A report must be provided to the Secretary and EPA within 1 month of the assessment.

Compliance Statement

Mod 1 was approved in September 2017. The required noise compliance assessment was completed in November 2017.

Appendix 5 - Condition 4 (Methodology of Assessment)

Condition

Unless the Secretary agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial Noise Policy (as amended from time to time), in particular the requirements relating to:

(a) monitoring locations for the collection of representative noise data;

(b) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment;

(c) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration; and

(d) the use of an appropriate modifying factor for low frequency noise to be applied during compliance testing at any individual residence if low frequency noise is present (in accordance with the INP) and before comparison with the specified noise levels in the approval

Compliance Statement

The 2018 Acoustic Assessment (**Attachment 6**) has been completed in accordance with the NSW Industrial Noise Policy.

Part 3 – Summary of Findings & Future Actions

3.1 Summary of Non-Compliances

The 2018 AEMR has identified the following non-compliances:

- Schedule 2 – Condition 8 (Truck Movements) – On one occasion in May 2018, there was an exceedance in the number of permitted daily truck movements. This was reported to DPE who decided to take no further action on this matter.
- Schedule 3 – Condition 19 (Groundwater) – The 2018 Groundwater Sampling Results exceeded a number of applicable parameters, with the results directly linked to the underlying geology of the locality. One occasion (April 2018), the results were not reported to the DPE. A personnel change has occurred since this time. Subsequent exceedances were reported promptly to the DPE, although there is generally a delay of several days due to resourcing limitations (as opposed to 'immediately' as required by the terms of the approval). On each of these occasions DPE decided to take no further action.
- Schedule 3 – Condition 19 (Surface Water) - Sampling was only undertaken on one occasion rather than quarterly due to difficulties associated with accessing the nominated sampling sites. However, LCC is in the process of finalising a new SWMP which incorporates revised monitoring points which are located in positions which are readily accessible and which will better reflect the actual discharge from the quarry (as opposed to the surrounding farmlands). This should ensure improved compliance moving forward. We note also that no discharge occurred during 2018, accordingly the likelihood of environmental harm associated with the above is low.
- Appendix 5 – Condition 2 (Noise Monitoring) – The Noise Monitoring had utilised weather records from the Lismore Airport, rather than those compiled from the onsite meteorological station installed in March 2018. LCC has adjusted processes to ensure that the on-site records are utilised in the future.

3.2 Status of Actions Identified in 2017 AEMR

The 2017 AEMR identified a number of actions and measures to improve environmental performance which were to be completed in 2017. The individual actions and advice with respect to progress on the completion of these tasks is provided below:

- **Action 1:** Update the Bushland Regeneration Plan to incorporate the 45ha of environmental offsets, with a particular focus on koala habitat.

2018 Response: This has been completed and forms an attachment to the Biodiversity and Rehabilitation Management Plan.

- **Action 2:** Ongoing works associated with the completing the detailed Groundwater Assessment in accordance with Schedule 3 Condition 20 of Part 3A Approval No. 07_0020 (Mod 1).

  2018 Response: The Detailed Assessment was completed and submitted to DPE on 15 March 2019.

- **Action 3:** Provide quarry product to service important local construction projects, including the Pacific Highway upgrade.

  2018 Response: The quarry continued to provide quarry product for a range of projects in 2018.

- **Action 4:** Improvements to liquid fuel storage on site. This will occur concurrent with the establishment of a vehicle wash at the quarry.

  2018 Response: LCC have reviewed this matter and concluded that the existing fuel containment on site is sufficient. This project is considered to be a low priority project at this time due to budget limitations.

- **Action 5:** Ongoing Best Practice certification relative to ISO 9001:2008, ISO 14001:2008 and AS/NZS 4801:2001.

  2018 Response: The Quarry continues to retain this certification. LCC currently reviewing whether or not this certification represents value for money, particularly given that the purchasing policies for the vast majority of customers do not require said certification.

3.3 Major Activities Planned for 2019

2019 will be a year of consolidation, after a busy year of updates to the various management plans and strategies for the quarry (with this work valued at more than $50,000). The following actions have been identified by LCC as priority projects in 2019:

- **Action A:** A request has been made to amend various conditions of consent relating to the quarry. Once this amendment is finalised, a further update to the management plans will be required.
- **Action B:** Continue to advance the rezoning processes associated with the environmental offset areas. Timing to finalise this process will be dependent upon

the LCC Sustainable Development Department and associated amendment schedule for the Lismore Local Environmental Plan.

- **Action C:** A request will be made to amend the EPA Licence for the site with respect to release points for surface water discharge. No change is required to DPE approvals to facilitate this outcome.

Part 4 - Conclusion

This Annual Environmental Monitoring Report (AEMR) has been prepared in response to Schedule 5 Condition 11 of the Blakebrook Quarry Part 3A Approval No. 07_0020 (Mod 1). It details actions taken during 2018, provides a snapshot of progress on compliance issues and elaborates on planned activities for the coming year.

Key findings of the AEMR are as follows:

- 2018 has been a year of significant progress with respect to updates to a range of assessments and management plans;
- There has been a regular exceedance of environmental criteria specified in Schedule 3 relating to groundwater, due to the underlying soil conditions impacting on ground water results. This exceedance was not reported for the first quarter of 2018, however subsequent events have been reported to DPE in accordance with the terms of Schedule 4.
- There has been an irregularity with respect to surface water sampling, with only one sample taken in 2018. The reasons for this are discussed in the assessment against Schedule 3 Condition 19.
- 2 additional non-compliances have been identified through the preparation of this report. Given the nature of the non-compliance, these issues are considered to be of minor significance, with procedures able to be readily modified in 2019 to ensure compliance going forward.

Should you have any queries regarding the above, please do not hesitate to contact Karina Vikstrom of this office.

[redacted]

Town Planner. BTP CPP

[redacted]

Town Planner BTP

Date: 29 March 2019

Notice of Modification

Section 75W of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning, I modify the project approval referred to in Schedule 1, as set out in Schedule 2.

[redacted]

[redacted]
Director Resource Assessments

Sydney 18th September 2017

SCHEDULE 1

The Project Approval (MP 07_0020) for the Blakebrook Quarry Project granted by the delegate for the Minister for Planning on 24 November 2009

SCHEDULE 2

1. Delete all words after Schedule 1 and replace with:

TABLE OF CONTENTS

DEFINITIONS

Aboriginal item or object	Any item or object that provides evidence of the use of an area by Aboriginal people, as defined under the *National Parks and Wildlife Act 1974*
Annual Review	The review required by condition 11 of Schedule 5.
AHD	Australian Height Datum
BCA	Building Code of Australia
Biodiversity Offset Strategy	The conservation and enhancement program as described in the EA (see also Table 5 and Appendix 4).
CCC	Community Consultative Committee
Council	Lismore City Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
OEH	Office of Environment and Heritage
Department	Department of Planning and Environment
DPI Water	Department of Primary Industries - Water
DRG	Division of Resources and Geoscience of the Department
EA	Environmental Assessment titled *Blakebrook Quarry Expansion, Environmental Assessment Report, Final Report*, January 2009, and the Proponent's response to submissions titled *Blakebrook Quarry Expansion, Response to Submissions, Final Report*, August 2009
EA (Mod 1)	Environmental Assessment titled *Blakebrook Quarry Modification Application August 2017*
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPL	Environment Protection Licence under the POEO Act
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build
Incident	A set of circumstances that: • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this approval
INP	*NSW Industrial Noise Policy* (NSW EPA, 2000)
Laden	Trucks transporting quarry products from the site and/or trucks transporting topsoil or mulch to the site
Land	As defined in the EP&A Act, except where the term is used in the noise and air quality conditions in Schedules 3 and 4 of this approval, where it is defined as the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Minister	Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the project
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
POEO Act	*Protection of the Environment Operations Act 1997*
Privately-owned land	Land that is not owned by a public agency or the Proponent (or its subsidiary)
Project	The project as described in the documents listed in condition 2(a) of Schedule 2
Proponent	Lismore City Council, or its successors in title
Quarrying operations	The extraction, processing, stockpiling and transportation of extractive materials carried out on the site and the associated removal of vegetation, topsoil and overburden
Quarry products	Includes all saleable quarry products, but excludes tailings, other wastes and rehabilitation material
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements.
RMS	Roads and Maritime Services
SEPP 44	*State Environmental Planning Policy No. 44 – Koala Habitat Protection*
Secretary	Secretary of the Department, or nominee
Site	The land referred to in Schedule 1

SCHEDULE 2
ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance measures and criteria established under this approval, the Proponent must implement all reasonable and feasible measures to prevent or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.

TERMS OF APPROVAL

2. The Proponent must carry out the project:
   (a) generally in accordance with the EA and EA (Mod 1); and
   (b) in accordance with the conditions of this approval, Project Layout Plan and the Statement of Commitments.

   Notes:
   - *The Project Layout Plan is shown in Appendix 1;*
   - *The Statement of Commitments is reproduced in Appendix 2.*

3. If there is any inconsistency between the documents in condition 2(a), the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.

4. The Proponent must comply with any written requirement/s of the Secretary arising from the Department's assessment of:
   (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval (including any stages of these documents);
   (b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with this approval;
   (c) and the implementation of any actions or measures contained in these documents.

5. By 30 June 2010, the Proponent shall surrender development consent DA 95/239 to the relevant consent authority to the satisfaction of the Secretary.

LIMITS ON APPROVAL

6. The Proponent may carry out quarrying operations on the site until 31 December 2039.

   Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional requirements and undertakings to the satisfaction of the Secretary. Consequently, this approval will continue to apply in all respects other than the right to conduct quarrying operations until the rehabilitation of the site and those requirements and undertakings have been carried out to the standard required by the applicable conditions.

7. The Proponent must not undertake quarrying operations below 55 m AHD in the northern pit or 105 m AHD in the southern pit.

   Note: Drainage sumps may be constructed below this level with the agreement of the Secretary.

8. The Proponent must not:
   (a) transport more than 600,000 tonnes of quarry materials from the site per calendar year; or
   (b) dispatch more than 100 laden trucks from the site on any calendar day.

   Note: Dispatch of laden trucks is also controlled under condition 1 of Schedule 3.

STRUCTURAL ADEQUACY

9. The Proponent must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

   Notes:
   - *Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for any proposed building works;*
   - *Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.*

DEMOLITION

10. The Proponent must ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601-2001: The Demolition of Structures*, or its latest version.

PROTECTION OF PUBLIC INFRASTRUCTURE

11. Unless the Proponent and the applicable authority agree otherwise the Proponent must:
    (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and
    (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project.

Note: This condition does not apply to damage to roads caused as a result of general road usage or otherwise addressed by contributions required by condition 13 of Schedule 2.

OPERATION OF PLANT AND EQUIPMENT

12. The Proponent must ensure that all the plant and equipment used at the site, or to monitor the performance of the project is:
    (a) maintained in a proper and efficient condition; and
    (b) operated in a proper and efficient manner.

SECTION 94 CONTRIBUTIONS

13. The Proponent must pay Council an annual financial contribution toward the maintenance of local roads used for haulage of quarry products. The contribution must be determined in accordance with the *Lismore City Council Section 94 Contribution Plan*, 2004, or any subsequent relevant contributions plan adopted by Council.

PRODUCTION DATA

14. The Proponent must:
    (a) from the commencement of quarrying operations provide calendar year annual quarry production data to DRG using the standard form for that purpose; and
    (b) include a copy of this data in the Annual Review.

COMPLIANCE

15. The Proponent must ensure that all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.

IDENTIFICATION OF BOUNDARIES

16. The Proponent must ensure that the boundaries of the approved limits of extraction are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits.

SCHEDULE 3
SPECIFIC ENVIRONMENTAL CONDITIONS

NOISE

Hours of Operation

1. The Proponent must comply with the operating hours set out in Table 1.

Table 1: Operating hours

Activity	Permissible Hours
Quarrying operations including loading and dispatch of laden trucks	7 am to 6 pm Monday to Friday
	7 am to 3 pm Saturday
	At no time on Sundays or public holidays
Blasting	10 am to 3 pm Monday to Friday (except public holidays)
	At no time on Sundays or public holidays
Maintenance	May be conducted at any time, provided that these activities are not audible at any privately-owned residence

2. The following activities may be carried out outside the hours specified in condition 1 above:
   (a) delivery or dispatch of materials as requested by Police or other public authorities; and
   (b) emergency work to avoid the loss of lives, property or to prevent environmental harm.

   In such circumstances, the Proponent must notify the Secretary and affected residents prior to undertaking the activities, or as soon as is practical thereafter.

3. The Proponent must ensure that the noise generated by the project does not exceed the criteria in Table 2 at any residence on privately-owned land.

Table 2: Noise criteria dB(A)

Receiver	Day $L_{Aeq\ (15\ minute)}$
Location 2	36
All other locations	35

Noise generated by the project is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the *NSW Industrial Noise Policy*. Appendix 5 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, the noise criteria in Table 2 do not apply if the Proponent has an agreement with the relevant landowner to exceed the noise criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

Operating Conditions

4. The Proponent must:
   (a) implement best practice management to minimise the construction, operational and road transportation noise of the project;
   (b) minimise the noise impacts of the project during meteorological conditions when the noise criteria in this approval do not apply (see Appendix 5);
   (c) carry out noise monitoring (at least every 3 months or as otherwise agreed with the Secretary) to determine whether the project is complying with the relevant conditions of this approval; and
   (d) regularly assess noise monitoring data and modify and/or stop operations on site to ensure compliance with the relevant conditions of this approval,

   to the satisfaction of the Secretary.

   Note: Required frequency of noise monitoring may be reduced if approved by the Secretary.

Noise Management Plan

5. The Proponent must prepare a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:
   (a) be prepared in consultation with the EPA;

(b) be submitted to the Secretary within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary;
(c) describe the measures to be implemented to ensure:
- compliance with the noise criteria and operating conditions of this approval;
- best practice management is being employed; and
- the noise impacts of the project are minimised during meteorological conditions under which the noise criteria in this approval do not apply (see Appendix 5);

(d) describe the proposed noise management system; and
(e) include a monitoring program to be implemented to measure noise from the project against the noise criteria in Table 2.

The Proponent must implement the Noise Management Plan as approved from time to time by the Secretary.

BLASTING

Blasting Impact Assessment Criteria

6. The Proponent must ensure that blasting on site does not cause any exceedance of the criteria in Table 3.

Table 3: Blasting Criteria

Receiver	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Any residence on privately-owned land	120	10	0%
	115	5	5% of the total number of blasts over a period of 12 months

However, these criteria do not apply if the Proponent has a written agreement with the relevant owner to exceed the limits in Table 3, and the Proponent has advised the Department in writing of the terms of this agreement.

Blasting Frequency

7. The Proponent may carry out a maximum of 2 blasts per month, unless an additional blast is required following a blast misfire. This condition does not apply to blasts required to ensure the safety of the quarry or workers on site.

Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the quarry.

Operating Conditions

8. During blasting operations, the Proponent must:
(a) implement best practice management to:
- protect the safety of people and livestock;
- protect public or private infrastructure and property from damage; and
- minimise the dust and fume emissions;

(b) operate a suitable system to enable the local community to get up-to-date information on the proposed blasting schedule on site; and
(c) carry out regular monitoring to determine whether the project is complying with the relevant conditions of this approval,
to the satisfaction of the Secretary.

Blast Management Plan

9. The Proponent must prepare a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:
(a) be submitted to the Secretary for approval within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary;
(b) describe the measures to be implemented to ensure compliance with the blast criteria and operating conditions of this approval;
(c) include measures to manage flyrock to ensure the safety or people and livestock and to protect property;
(d) include a monitoring program for evaluating and reporting on compliance with the blasting criteria in this approval;
(e) include local community notification procedures for the blasting schedule, in particular to nearby residences; and

(f) include a protocol for investigating and responding to complaints related to blasting operations.

The Proponent must implement the Blast Management Plan as approved from time to time by the Secretary.

AIR QUALITY

Air Quality Impact Assessment Criteria

10. The Proponent must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not cause exceedances of the criteria in Table 4 at any residence on privately-owned land.

Table 4: Air quality criteria

Pollutant	***Averaging Period***	***Criterion***	
Particulate matter < 10 µm (PM_{10})	Annual	[a,d] 25 µg/m^3	
Particulate matter < 10 µm (PM_{10})	24 hour	[b] 50 µg/m^3	
Total suspended particulates (TSP)	Annual	[a,d] 90 µg/m^3	
[c] Deposited dust	Annual	[b] 2 g/m^2/month	[a,d] 4 g/m^2/month

Notes to Table 4:
a Cumulative impact (ie increase in concentrations due to the project plus background concentrations due to all other sources).
[b] Incremental impact (ie increase in concentrations due to the project alone, with zero allowable exceedances of the criteria over the life of the project.
[c] Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
[d] Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.
e "Reasonable and feasible avoidance measures" includes, but is not limited to, the operational requirements in conditions 11, 12 and 13 to develop and implement an air quality management system that ensures operational responses to the risks of exceedance of the criteria.

Operating Conditions

11. The Proponent must:
(a) implement best practice management to minimise the dust emissions of the project;
(b) regularly assess meteorological and air quality monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this approval;
(c) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see note d under Table 4);
(d) monitor and report on compliance with the relevant air quality conditions in this approval; and
(e) minimise the area of surface disturbance and undertake progressive rehabilitation of the site,
to the satisfaction of the Secretary.

Air Quality Management Plan

12. The Proponent must prepare an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:
(a) be submitted to the Secretary for approval within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary;
(b) describe the measures to be implemented to ensure:
- compliance with the air quality criteria and operating conditions of this approval;
- best practice management is being employed; and
- the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events;

(c) describe the proposed air quality management system;
(d) include an air quality monitoring program that:
- is capable of evaluating the performance of the project;
- includes a protocol for determining any exceedances of the relevant conditions of approval; and
- effectively supports the air quality management system.

The Proponent must implement the approved Air Quality Management Plan as approved from time to time by the Secretary.

Meteorological Monitoring

13. For the life of the project, the Proponent must ensure that there is a suitable meteorological station operating in the vicinity of the site that complies with the requirements in the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* guideline.

Greenhouse Gas Emissions

14. The Proponent must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site.

SOIL AND WATER

Water Supply

15. The Proponent must ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of operations under the approval to match its available water supply, to the satisfaction of the Secretary.

Water Discharges

16. The Proponent must comply with the discharge limits in any EPL, or with section 120 of the POEO Act.

Groundwater Assessment

17. The Proponent must undertake a detailed groundwater assessment to the satisfaction of the Secretary. This assessment must be:
    (a) prepared by a suitably qualified expert in consultation with DPI Water;
    (b) submitted to the Secretary for approval by 30 December 2018;
    (c) approved by the Secretary before any extraction below 105 m AHD in the northern pit or below 118.5 m AHD in the southern pit;
    (d) adequately assess groundwater resources affected by the northern and southern pits, to the proposed full extraction depths of those pits;
    (e) adequately assess all groundwater impacts associated with proposed extraction;
    (f) provide data for predicted groundwater pit inflows during and following extraction; and
    (g) propose management measures to address pit inflows and impacts to groundwater resources.

    The Proponent must implement the management measures proposed in the groundwater assessment to the satisfaction of the Secretary.

Soil and Water Management

18. If groundwater is encountered during quarrying operations in the South Pit under EA (Mod 1), the Proponent must cease quarrying operations until authorised to recommence by the Secretary.

19. The Proponent must prepare a Soil and Water Management Plan for the project to the satisfaction of the Secretary. This plan must:
    (a) be prepared by suitably qualified and experienced person/s approved by the Secretary;
    (b) be prepared in consultation with the EPA and DPI Water;
    (c) be submitted to the Secretary for approval within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary; and
    (d) include a:
        (i) Site Water Balance that includes:
            - details of:
                - sources and security of water supply;
                - water use and management on site;
                - any off-site water transfers; and
                - reporting procedures; and
            - measures to be implemented to minimise clean water use on site;
        (ii) Surface Water Management Plan, that includes:
            - a program for obtaining detailed baseline data on surface water flows and quality in water bodies that could potentially be affected by the project;
            - a detailed description of the surface water management system on site including the:
                - clean water diversion system;
                - erosion and sediment controls;
                - dirty water management system; and

- water storages; and
- a program to monitor and report on:
  - any surface water discharges;
  - the effectiveness of the water management system,
  - the quality of water discharged from the site to the environment;
  - surface water flows and quality in local watercourses;

(iii) Groundwater Management Plan that includes:

- a provision that requires the Proponent to obtain appropriate water licence(s) to cover the volume of any unforeseen groundwater inflows into the quarry from the quarry face or floor; and
- a monitoring program to manage potential impacts, if any, on any alluvium and associated surface water source near the proposed extraction area that includes:
  - identification of a methodology for determining threshold water level criteria;
  - contingency measures in the event of a breach of thresholds; and
  - a program to regularly report on monitoring.

The Proponent must implement the approved Soil and Water Management Plan as approved from time to time by the Secretary.

TRANSPORT

Monitoring of Product Transport

20. The Proponent must keep accurate records of all laden truck movements to and from the site (including time of arrival and dispatch) and publish a summary of records on its website every 6 months.

Road Upgrades

21. The Proponent must undertake the following road upgrade works generally in accordance with the recommendations in the EA, and to the satisfaction of the RMS:
    (a) upgrade the intersection of the Quarry Access and Nimbin Road to a 'Type AUR Intersection Treatment', prior to 31 December 2010;
    (b) upgrade the guard rails on the approaches to Booerie Creek Bridge prior to 31 December 2010;
    (c) upgrade the Booerie Creek Road and Nimbin Road intersection to a 'Type BAR Right Turn Treatment on the Through Road' prior to 31 December 2010;
    (d) upgrade the Wilson Street and Nimbin Road intersection to a 'Type CHR Right Turn Bay Treatment' prior to 31 December 2010; and
    (e) re-align Nimbin Road and the Quarry Access intersection to meet the AUSTROADS sight distance requirements for vehicles travelling in both directions through the intersection prior to 31 December 2011.

Note: The road works must be constructed in accordance with the relevant RMS or AUSTROADS standards, and signposted and lit in accordance with AS:1742 – Manual of Uniform Traffic Control Devices and AS/NZ 1158:2005 – Lighting for Roads and Public Spaces.

Operating Conditions

22. The Proponent must:
    (a) restrict truck movements from the quarry to an average of 50 laden trucks a day until all road upgrades works required by condition 20 of Schedule 3, are met or unless otherwise approved by the Secretary;
    (b) ensure that all laden trucks entering or exiting the site have their loads covered, with the exception of loads consisting solely of boulders greater than one tonne in weight;
    (c) ensure that all laden trucks exiting the site are cleaned of material that may fall from vehicles, before leaving the site; and
    (d) use its best endeavours to ensure that appropriate signage is displayed on all trucks used to transport product from the project so they can be easily identified by road users.

Traffic Management Plan

23. The Proponent must prepare a Traffic Management Plan for the project to the satisfaction of the Secretary. This plan must:
    (a) be prepared in consultation with the RMS and Council;
    (b) be submitted to the Secretary for approval within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary;
    (c) describe the processes in place for the control of truck movements entering and exiting the site;
    (d) include a Drivers' Code of Conduct that details the safe and quiet driving practices that must be used by drivers transporting products to and from the quarry;

(e) describe the measures to be put in place to ensure compliance with the Drivers' Code of Conduct; and
(f) propose measures to minimise the transmission of dust and tracking of material onto the surface of the public road from vehicles leaving the quarry.

The Proponent must implement the approved Traffic Management Plan as approved from time to time by the Secretary.

ABORIGINAL HERITAGE

Aboriginal Heritage Management Plan

24. The Proponent must prepare an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. The plan must:
(a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
(b) be prepared in consultation with OEH and the Registered Aboriginal Parties;
(c) be submitted to the Secretary for approval within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary; and
(d) include a description of the measures that would be implemented to:
- protect, monitor and manage known sites of archaeological significance;
- manage any new Aboriginal objects or relics that are discovered;
- store Aboriginal heritage items salvaged on site; and
- ensure ongoing consultation and involvement of the Registered Aboriginal Parties in the conservation and management of Aboriginal cultural heritage on the site.

The Proponent must implement the approved Aboriginal Heritage Management Plan as approved from time to time by the Secretary.

25. If any item or object of Aboriginal heritage significance is identified on site, the Proponent must ensure that:
(a) all work in the immediate vicinity of the suspected Aboriginal item or object ceases immediately;
(b) a 10 m buffer area around the suspected item or object is cordoned off; and
(c) the OEH is contacted immediately.

Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the *National Parks and Wildlife Act 1974*.

BIODIVERSITY AND REHABILITATION

Biodiversity Offset Strategy

5. The Proponent must:
(a) implement the Biodiversity Offset Strategy (see Table 5);
(b) ensure that adequate resources are dedicated towards the implementation of this strategy;
(c) provide appropriate long term security for the offset area; and
(d) provide a timetable for the implementation of the offset strategy prior to 30 June 2010, or as otherwise agreed by the Secretary,
to the satisfaction of the Secretary.

Table 5: Biodiversity Offset Strategy

Offset Areas	***Minimum Size***
On-site offset (Protection Zone in Appendix 4)	17.6 hectares
Off-site offset (within Lismore local government area, and not already within a conservation area)	45 hectares
Total	62.6 hectares

Note: Mechanisms to provide appropriate long-term security to the land within the Biodiversity Offset Strategy in accordance with the NSW Biodiversity Offset Policy for Major Projects 2014, include a BioBanking Agreement, Voluntary Conservation Agreement or an alternative mechanism that provides for a similar conservation outcome.

Rehabilitation Objectives

26. The Proponent must rehabilitate the site to the satisfaction of the Secretary. This rehabilitation must be generally consistent with the rehabilitation strategy in the EIS and must comply with the objectives in Table 6.

Table 6: Rehabilitation Objectives

Feature	Objective
All areas of the site affected by the project	• Safe • Hydraulically and geotechnically stable • Non-polluting • Fit for the intended post-mining land use(s) • Final landform integrated with surrounding natural landforms as far as is reasonable and feasible, and minimising visual impacts when viewed from surrounding land
Surface Infrastructure	• Decommissioned and removed, unless otherwise agreed by the Secretary
Quarry benches and pit floor	• Landscaped and vegetated using native tree and understorey species
Final Void	• Minimise the size, depth and slope of the batters of the final void • Minimise the drainage catchment of the final void

Progressive Rehabilitation

27. The Proponent must rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.

Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to future re-disturbance.

Biodiversity and Rehabilitation Management Plan

28. The Proponent must prepare a Biodiversity and Rehabilitation Management Plan for the project to the satisfaction of the Secretary. This plan must:
    (a) be prepared by a suitably qualified expert;
    (b) be prepared in consultation with OEH and Council;
    (c) be submitted to the Secretary for approval within 3 months of the determination of Modification 1, unless otherwise agreed by the Secretary;
    (d) provide details of the conceptual final landform and associated land uses for the site;
    (e) describe how the implementation of the Biodiversity Offset Strategy will be integrated with the overall rehabilitation of the site;
    (f) include a Koala Management Plan prepared in accordance with SEPP 44;
    (g) include detailed performance and completion criteria for evaluating the performance of the Biodiversity Offset Strategy and rehabilitation of the site (including progressive rehabilitation), including triggers for any necessary remedial action;
    (h) describe the short, medium and long term measures to be implemented to:
        - manage remnant vegetation and habitat on site, including within the Biodiversity Offset Strategy area; and
        - ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;
    (i) include a detailed description of the measures described in paragraph (h) to be implemented over the next 3 years (to be updated for each 3 year period following initial approval of the plan) including the procedures to be implemented for:
        - maximising the salvage of environmental resources within the approved disturbance area, including tree hollows, vegetative and soil resources, for beneficial reuse in the enhancement of the offset area or site rehabilitation;
        - restoring and enhancing the quality of native vegetation and fauna habitat in the biodiversity offset and rehabilitation areas through assisted natural regeneration, targeted vegetation establishment and the introduction of fauna habitat features;
        - protecting vegetation and fauna habitat outside the approved disturbance area on-site, including core Koala habitat;
        - minimising the impacts on native fauna, including undertaking pre-clearance surveys;
        - establishing vegetation screening to minimise the visual impacts of the site on surrounding receivers;
        - ensuring minimal environmental consequences for threatened species, populations and habitats;
        - collecting and propagating seed;
        - controlling weeds and feral pests;
        - controlling erosion; and
        - managing bushfire risk;

(j) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria;
(k) identify the potential risks to the successful implementation of the Biodiversity Offset Strategy, and include a description of the contingency measures to be implemented to mitigate these risks; and
(l) include details of who is responsible for monitoring, reviewing, and implementing the plan.

The Proponent must implement the Biodiversity and Rehabilitation Management Plan as approved from time to time by the Secretary.

Biodiversity and Rehabilitation Bond

29. Within 6 months of the approval of the Biodiversity and Rehabilitation Management Plan, the Proponent must lodge a Biodiversity and Rehabilitation Bond with the Department to ensure that the Biodiversity Offset Strategy and rehabilitation of the site are implemented in accordance with the performance and completion criteria set out in the plan and the relevant conditions of this approval. The sum of the bond must be determined by:
(a) calculating the full cost of implementing the Biodiversity Offset Strategy;
(b) calculating the cost of rehabilitating all disturbed areas of the site, taking into account the likely surface disturbance over the next 3 years of quarrying operations; and
(c) employing a suitably qualified quantity surveyor or other expert to verify the calculated costs,
to the satisfaction of the Secretary.

Notes:

- *Alternative funding arrangements for long term management of the Biodiversity Offset Strategy, such as provision of capital and management funding as agreed by OEH as part of a BioBanking Agreement, or transfer to conservation reserve estate can be used to reduce the liability of the Biodiversity and Rehabilitation Bond.*
- *If capital and other expenditure required by the Biodiversity and Rehabilitation Management Plan is largely complete, the Secretary may waive the requirement for lodgement of a bond in respect of the remaining expenditure.*
- *If the Biodiversity Offset Strategy and/or rehabilitation of the site area are completed (or partially completed) to the satisfaction of the Secretary, then the Secretary will release the bond (or relevant part of the bond). If the Biodiversity Offset Strategy and rehabilitation of the site are not completed to the satisfaction of the Secretary, then the Secretary will call in all or part of the bond, and arrange for the completion of the relevant works.*

30. Within 3 months of each Independent Environmental Audit (see condition 12 of Schedule 5), the Proponent must review, and if necessary revise, the sum of the Biodiversity and Rehabilitation Bond to the satisfaction of the Secretary. This review must consider the:
(a) effects of inflation;
(b) likely cost of implementing the Biodiversity Offset Strategy and rehabilitating all disturbed areas of the site (taking into account the likely surface disturbance over the next 3 years of the project); and
(c) performance of the implementation of the Biodiversity Offset Strategy and rehabilitation of the site to date.

VISUAL

31. The Proponent must implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project to the satisfaction of the Secretary.

WASTE

32. The Proponent must:
(a) manage on-site sewage treatment and disposal in accordance with the requirements of its EPL, and to the satisfaction of the EPA and Council;
(b) minimise the waste generated by the project;
(c) ensure that the waste generated by the project is appropriately stored, handled, and disposed of; and
(d) report on waste management and minimisation in the Annual Review,
to the satisfaction of the Secretary.

33. Except as expressly permitted in an EPL, the Proponent must not receive waste at the site for storage, treatment, processing, reprocessing or disposal.

LIQUID STORAGE

34. The Proponent must ensure that all tanks and similar storage facilities (other than for water) are protected by appropriate bunding or other containment, in accordance with the relevant Australian Standards.

DANGEROUS GOODS

35. The Proponent must ensure that the storage, handling, and transport of dangerous goods is done in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the *Dangerous Goods Code*.

BUSHFIRE

36. The Proponent must:
    (a) ensure that the project is suitably equipped to respond to any fires on site; and
    (b) assist the Rural Fire Service and emergency services to the extent practicable if there is a fire in the vicinity of the site.

SCHEDULE 4
ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. As soon as practicable, and no longer than 7 days, after obtaining monitoring results showing:
   (a) an exceedance of any criteria in Schedule 3, the Proponent must notify the affected landowners in writing of the exceedance, and provide regular monitoring results, at least every 3 months, to each affected landowner until the project is again complying with the relevant criteria; and
   (b) an exceedance of any air quality criteria in Schedule 3, the Proponent must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and current tenants of the land (including the tenants of land which is not privately-owned).

INDEPENDENT REVIEW

2. If an owner of privately-owned land considers the project to be exceeding the relevant criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land.

   If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Proponent must:
   (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
      - consult with the landowner to determine his/her concerns;
      - conduct monitoring to determine whether the project is complying with the relevant criteria in Schedule 3; and
      - if the project is not complying with these criteria, then identify measures that could be implemented to ensure compliance with the relevant criteria; and
   (b) give the Secretary and landowner a copy of the independent review; and
   (c) comply with any written requests made by the Secretary to implement any findings of the review.

PROPERTY INSPECTIONS

3. Prior to 30 June 2010, the Proponent must advise all owners of privately-owned land within 2 kilometres of proposed blasting activities, and any other landowner nominated by the Secretary, that they are entitled to a property inspection to establish the baseline condition of the property.

4. If the Proponent receives a written request for a property inspection from any such landowner, the Proponent must:
   (a) commission a suitably qualified person, whose appointment has been approved by Secretary, to inspect and report on the condition of any building or structure on the land, and recommend measures to mitigate any potential blasting impacts; and
   (b) give the landowner a copy of this property inspection report.

   Note: It is preferable for the property inspection to be carried out prior to the commencement of blasting activities on the site, and the Proponent should facilitate this occurring wherever possible.

PROPERTY INVESTIGATIONS

5. If any owner of privately-owned land within 2 kilometres of proposed blasting activities, or any other landowner nominated by the Secretary, claims that his/her property, including vibration-sensitive infrastructure such as water supply or underground irrigation mains, has been damaged as a result of blasting at the project, the Proponent shall within 3 months of receiving this request:
   (a) commission a suitably qualified person whose appointment has been approved by the Secretary to investigate the claim and prepare a property investigation report; and
   (b) give the landowner a copy of the report.

   If this independent investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damage to the satisfaction of the Secretary.

   If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.

SCHEDULE 5
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. The Proponent must prepare an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:
   (a) be submitted to the Secretary for approval within 6 months of the Secretary requiring preparation of the strategy by notice to the Proponent;
   (b) provide the strategic framework for environmental management of the project;
   (c) identify the statutory approvals that apply to the project;
   (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
   (e) describe the procedures to be implemented to:
      - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
      - receive, record, handle and respond to complaints;
      - resolve any disputes that may arise during the course of the project;
      - respond to any non-compliance;
      - respond to emergencies; and
   (a) include:
      - copies of any strategies, plans and programs approved under the conditions of this approval; and
      - a clear plan depicting all the monitoring to be carried out under the conditions of this approval.

   The Proponent must implement any Environmental Management Strategy as approved from time to time by the Secretary.

Evidence of Consultation

2. Where consultation with any State or local agency is required by the conditions of this approval, the Proponent must:
   (a) consult with the relevant agency prior to submitting the required document to the Secretary for approval;
   (b) submit evidence of this consultation as part of the relevant document;
   (c) describe how matters raised by the agency have been addressed and any matters not resolved; and
   (d) include details of any outstanding issues raised by the agency and an explanation of disagreement between any agency and the Proponent.

Management Plan Requirements

3. The Proponent must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:
   (a) detailed baseline data;
   (b) a description of:
      - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
      - any relevant limits or performance measures/criteria; and
      - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;
   (c) a description of the measures that to be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
   (d) a program to monitor and report on the:
      - impacts and environmental performance of the project; and
      - effectiveness of any management measures (see (c) above);
   (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
   (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
   (g) a protocol for managing and reporting any:
      - incidents;
      - complaints;
      - non-compliances with statutory requirements; and
      - exceedances of the impact assessment criteria and/or performance criteria; and

(h) a protocol for periodic review of the plan.

Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

Application of Existing Management Plans

4. The Proponent must continue to apply existing approved management plans, strategies or monitoring programs that have most recently been approved under this approval, until the approval of a similar plan, strategy or program under this approval.

Revision of Strategies, Plans & Programs

4. Within 3 months of the submission of an:
   (a) incident report under condition 9 below;
   (b) Annual Review under condition 11 below;
   (c) audit report under condition 12 below; and
   (d) any modifications to this approval,

   the Proponent must review the strategies, plans and programs required under this approval, to the satisfaction of the Secretary. The proponent must notify the Department in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary.

   Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the project.

Updating and Staging of Strategies, Plans or Programs

5. To ensure that strategies, plans or programs required under this approval are updated on a regular basis, and that they incorporate any appropriate additional measures to improve the environmental performance of the project, the Proponent may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Proponent may also submit any strategy, plan or program required by this approval on a staged basis.

   The Secretary may approve a revised strategy, plan or program required under this approval, or the staged submission of any of these documents, at any time. With the agreement of the Secretary, the Proponent may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this approval.

   While any strategy, plan or program may be submitted on a staged basis, the proponent will need to ensure that the operations associated with the project are covered by suitable strategies, plans or programs at all times.

   If the submission of any strategy, plan or program is to be staged; then the relevant strategy, plan or program must clearly describe the specific stage/s of the project to which the strategy, plan or program applies; the relationship of this stage/s to any future stages; and the trigger for updating the strategy, plan or program.

Adaptive Management

6. The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

   Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must as soon as becoming aware of any exceedance:
   (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not reoccur;
   (b) consider all reasonable and feasible options for remediation (where relevant);
   (c) within 14 days of the exceedance occurring, submit a report to the Secretary describing these remediation options and any preferred remediation measures or other course of action; and
   (d) implement remediation measures as directed by the Secretary;

   to the satisfaction of the Secretary.

COMMUNITY CONSULTATIVE COMMITTEE

7. The Proponent must establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Secretary. The CCC must be operated in general accordance with the Department's *Community Consultative Committee Guidelines, November 2016* (or later version).

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.*
- *In accordance with the guidelines, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council and the local community.*

REPORTING

Incident Reporting

8. The Proponent must immediately notify the Secretary (using the contact name, email address and phone number provided by the Department from time to time) and any other relevant agencies of any incident.

9. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested. This report must include the time and date of the incident, details of the incident, measures implemented to prevent re-occurrence and must identify any non-compliance with this approval.

Regular Reporting

10. The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.

Annual Review

11. By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent must submit a review to the Department reviewing the environmental performance of the project to the satisfaction of the Secretary. This review must:
    (a) describe the project (including any progressive rehabilitation) that was carried out in the previous calendar year, and the project that is proposed to be carried out over the current calendar year;
    (b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against the:
        - relevant statutory requirements, limits or performance measures/criteria;
        - requirements of any plan or program required under this approval;
        - monitoring results of previous years; and
        - relevant predictions in the documents listed in condition 2(a) of Schedule 2;
    (c) evaluate and report on:
        - the effectiveness of the air quality and noise management systems; and
        - compliance with the performance measures, criteria and operating conditions in this approval.
    (d) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;
    (e) identify any trends in the monitoring data over the life of the project;
    (f) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies;
    (g) escribe what measures will be implemented over the current calendar year to improve the environmental performance of the project.

    The Proponent must ensure that copies of the Annual Review are submitted to Council and are available to the Community Consultative Committee (see condition 7 of Schedule 5) and any interested person upon request.

INDEPENDENT ENVIRONMENTAL AUDIT

12. Within three years of the date of grant of this project approval, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission, commence and pay the full cost of an Independent Environmental Audit of the project. This audit must:
    (a) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
    (b) include consultation with the relevant agencies and the CCC;
    (c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL or necessary water licences for the project (including any assessment, strategy, plan or program required under these approvals);
    (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;

(e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and
(f) be conducted and reported to the satisfaction of the Secretary.

13. Within 12 weeks of commencing this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of these recommendations as required. The Proponent must implement these recommendations, to the satisfaction of the Secretary.

ACCESS TO INFORMATION

14. Within 3 months of the determination of Modification 1, until the completion of all works, including rehabilitation and remediation the Proponent must:
(a) make the following information publicly available on its website:
- the documents listed in condition 2(a) of Schedule 2;
- current statutory approvals for the project;
- all approved strategies, plans and programs required under the conditions of this approval;
- a comprehensive summary of the monitoring results of the project, reported in accordance with the specifications in any conditions of this approval, or any approved plans and programs;
- a complaints register, updated monthly;
- the annual reviews of the project;
- any independent environmental audit as described in condition 12 above, and the Proponent's response to the recommendations in any audit; and
- any other matter required by the Secretary; and

(b) keep this information up-to-date,
to the satisfaction of the Secretary.

APPENDIX 1
PROJECT LAYOUT PLAN

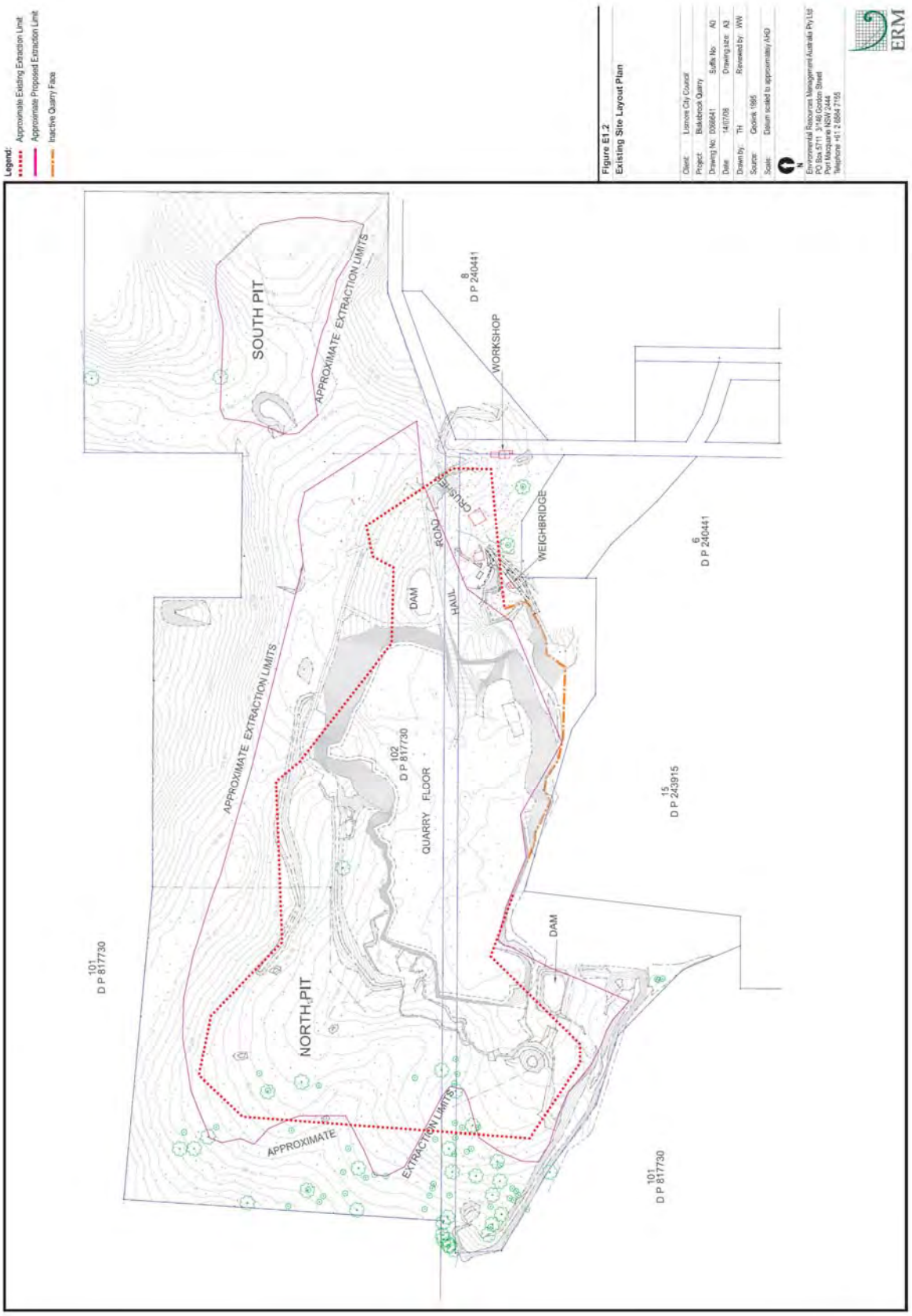


Table 3.1 Statement of Commitments

Item Number	Item	Commitment	Responsibility	Timing
1	Scope of Development			
1.1		The development will be carried out as outlined in the documentation and plans listed below, except where amended by other items of this Statement of Commitments. • Environmental Assessment (EA), prepared by ERM, 2009 and supporting reports; and • Quarry Plans (refer *Figures 2.3 to 2.5* of the EA (ERM, 2009).	Lismore City Council and/or its successors	Ongoing
2	Roads			
2.1		The proponent shall provide the following roadworks with associated stormwater drainage structures that have been designed and constructed in accordance with Council's Development, Design and Construction Manual (as amended). The proponent shall be responsible for any costs, including maintenance, for a period of six months from the date of approval of completion of the work. Required roadworks include:	Lismore City Council	Prior to the operation of the expanded quarry.
2.1.1		Construction of a type CHR intersection layout at the junction of the quarry access and Nimbin Road in accordance with AUSTROADS Pt 5 "Intersections at Grade" giving particular attention to sight distance. The access road will remain sealed from at least 50m back from Nimbin Road to prevent fouling of the road surface, as per existing conditions.	Lismore City Council	Prior to the operation of the expanded quarry.
2.1.2		Construction of a type CHR intersection layout at the junction of Nimbin Road and Wilson Street in accordance with AUSTROADS Pt 5 "Intersections at Grade".	Lismore City Council	Prior to the operation of the expanded quarry.

Item Number	Item	Commitment	Responsibility	Timing
2.1.3		Construction of a 1m wide gravel shoulder and repair existing pavement of Nimbin Road for a length of 200 metres at a location 2.8 kilometres north of the intersection of Nimbin Road and Wilson Street as recommended within Appendix G, Traffic Impact Study, of the Environmental Assessment.	Lismore City Council	Prior to the operation of the expanded quarry.
2.1.4		Installation of guard rail in accordance with the relevant standard at Booerie Creek Bridge approaches as recommended within Appendix G, Traffic Impact Study, of the Environmental Assessment.	Lismore City Council	Prior to the operation of the expanded quarry.
2.1.5		Works identified in Tables 1 and 2 of Appendix G, Traffic Impact Study, of the Environmental Assessment that have not been individually detailed within conditions of consents.	Lismore City Council	Prior to the operation of the expanded quarry.
Prior to the operation of the expanded quarry the applicant shall obtain a certificate of completion for the above works from Council. Prior to obtaining this certificate a practicing qualified surveyor or engineer shall submit to Council for approval, a "works-as-executed" set of plans, completed asset record forms and construction certification. The certification shall certify that all roads, drainage and civil works required by this development consent and the approved design plans have been completed in accordance with Council's Development and Construction Manual (as amended).				
2.2		The proponent shall provide the following roadworks with associated stormwater drainage structures that have been designed and constructed in accordance with Council's Development, Design and Construction Manual (as amended). The proponent shall be responsible for any costs, including maintenance, for a period of six months from the date of approval of completion of the work. Required roadworks include:		
2.2.1		Construction of a type BAR intersection layout at the junction of Nimbin Road and Booerie Creek Road in accordance with AUSTROADS Pt 5 "Intersections at Grade".	Lismore City Council	Once production rates reach 350,000 tonnes/ annum.
Prior to exceeding an annual extraction rate of 350,000 tonnes in any one year the applicant shall obtain a certificate of completion for the above works from Council. Prior to obtaining this certificate a practicing qualified surveyor or engineer shall submit to Council for approval, a "works-as-executed" set of plans, completed asset record forms and construction certification. The certification shall certify that all roads, drainage and civil works required by this development consent and the approved design plans have been completed in accordance with Council's Development and Construction Manual (as amended).				

Item Number	Item	Commitment	Responsibility	Timing
2.3		Prior to the operation of the expanded quarry a review of the Road Safety Audit contained within Tables 1 and 2 of Appendix G, Traffic Impact Study, of the Environmental Assessment shall be undertaken. All required works identified within the review that are not individually detailed within conditions of consents shall be completed prior to operation of the expanded quarry.	Lismore City Council	Prior to the operation of the expanded quarry.
2.4		Prior to the operation of the expanded quarry hinged "Truck Entering" warning signage, W5-22 signs, shall be erected at suitable locations, approximately 200 metres either side of the access, upon Nimbin Road advising of the traffic hazard. Signs shall be displayed during hours of haulage operations only.	Lismore City Council	Prior to the operation of the expanded quarry.
2.5		**Prior to the commencement of works required by the above conditions** the applicant shall obtain approval under section 138 of the Roads Act for the works upon the public road. For this approval full design plans of the proposed engineering works required upon the public road shall be submitted to and approved by Council. Plans shall include details of works required to satisfy condition(s) RD1. Such plans shall be accompanied with the fee, as adopted at the time of the relevant payment as indicated in Councils Fees and Charges.	Lismore City Council	Prior to the commencement of works required by the above conditions.
2.6		**Prior to the issue of the section 138 approval for works upon the public road** the proponent shall have approved by Council a plan of management for the construction of all civil works outside the real property boundaries of the proposed development. The plan shall table scheduling of works so as to be completed in the shortest possible time with minimal impact on the general community. Such plan shall include a Traffic Control Plan prepared by an RTA accredited person. All works shall comply with the Occupational Health and Safety Act.	Lismore City Council	Prior to the issue of the section 138 approval for works upon the public road.
2.7		The plan of management for the operation of the quarry shall incorporate a code of practice for trucking operations associated with the development. This code shall include a requirement for the use of CB radios for communication with buses and garbage trucks within all haulage vehicles as recommended within Appendix G, Traffic Impact Study, of the Environmental Assessment.	Lismore City Council	Prior to the issue of the section 138 approval for works upon the public road.

Item Number	Item	Commitment	Responsibility	Timing
2.8		The development shall provide adequate on site parking for all vehicles, plant and equipment associated with the development.	Lismore City Council	Prior to the operation of the expanded quarry.
2.9		The proposed access shall be sealed for the first 50 metre length from Nimbin Road. Driveways, access aisles and parking areas shall be provided with a suitable pavement, constructed and maintained in accordance with Council's Development, Design and Construction Manual (as amended).	Lismore City Council	Prior to the operation of the expanded quarry.
2.10		All loading and unloading shall take place within the property boundaries, as will the parking of construction and private vehicles associated with the development.	Lismore City Council	Ongoing.
2.11		Vehicles using any off street loading/unloading and/or parking area must enter and leave in a forward direction in accordance with Councils Development Control Plan No.1, Part A, Chapter 7 – Off Street Parking Requirements. All driveways and turning areas shall be kept clear of obstructions that prevent compliance with this condition.	Lismore City Council	Ongoing.
2.12		The proponent shall provide Council, on or before January 31, April 30, July 31 and October 31 in each year, with extraction figures detailing quantities of all material removed from the site for the previous quarter of operations.	Lismore City Council	Ongoing.
2.13		Annual payment of contributions levied under Section 94 of the Environmental Planning and Assessment Act and Lismore City Council S94 Contributions Plan 2004 (as amended) are required. Such levies shall contribute towards the provision of public services and/or amenities identified. Such levies shall be calculated utilising extraction returns as required by the above **condition**. The rates and amounts applying at the date of this notice for the approved extraction rate of 600,000 tonnes, totalling **$560,628** annually, have been calculated as set out below for your information. Levies set out below shall be increased in accordance with the percentage increase as notified by the Consumer Price Index (Sydney) annually. Levies shall be paid within 30 days of the Council issuing an assessment for the preceding year.	Lismore City Council	Ongoing

Item Number	Item	Commitment	Responsibility	Timing
		The contributions set out in the schedule are exclusive of any GST (if any) and where the provision of any services or the construction of any infrastructure or any other thing with those contributions occurs, then in addition to the amount specified above the Applicant will pay to the Council the GST (as defined below) which is payable by the Council in respect of the provision of such services or the construction of any infrastructure or any other thing. GST means any tax levy charge or impost under the authority of any GST law (as defined by the GST Act) and includes GST within the meaning of the GST Act. The GST Act means A New Tax System (Goods and Services Tax) Act 1999 or any amending or succeeding legislation. The levy shall be calculated in accordance with Councils adopted section 94 plan as at this date and be based on the following information: • Road construction cost of $369,000 per kilometre indexed for CPI annually from December 2003) • Average haulage distance of 15 kilometres • For use in calculations a conversion factor of 1.7 from m^3 to tonnes has been adopted • The first 5,000m^3 (8,500 tonnes) per annum shall be exempt from levies. Levy calculation for yearly extraction will be: ($369,000/6.74x10^6) x 15km x (Annual tonnage extracted – 8,500) x 1.025 x CPI = (369,000/6.74x10^6) x 15km x (600,000 – 8,500) x 1.025 x 1.126 = $560,628		

Item Number	Item	Commitment	Responsibility	Timing
2.14		A Traffic Noise Management Strategy (TNMS) be developed by the proponent to ensure that feasible and reasonable noise management strategies for vehicle movements associated with the facility are identified and applied, that include but are not necessarily limited to the following:	Lismore City Council	Prior to the operation of the expanded quarry.
2.14.1		Driver training to ensure that noisy practices such as the use of compression engine brakes are not unnecessarily used near sensitive receivers;		
2.14.2		Best noise practice in the selection and maintenance of vehicle fleets;		
2.14.3		Movement scheduling where practicable to reduce impacts during sensitive times of the day;		
2.14.4		Communication and management strategies for non licensee/proponent owned and operated vehicles to ensure the provision of the TNMS are implemented;		
2.14.5		A system of audited management practices that identifies non conformances, initiates and monitors corrective and preventative action (including disciplinary action for breaches of noise minimisation procedures) and assesses the implementation and improvement of the TNMS;		
2.14.6		Specific procedures to minimise impacts to identified sensitive receivers;		
2.14.7		Clauses in conditions of employment, or in contracts, of drivers that require adherence to noise minimisation procedures and facilitate effective implementation of the disciplinary actions for breaches of the procedures.		
3	**Ecological Considerations**			
3.1		The vegetation o the site will be cleared and managed in accordance with the Vegetation and Habitat Management Plan provided as Appendix 4 to the *Ecological Site Assessment* (Conacher Environmental Group, 2008) (refer to *Appendix F*), including the following: • Revegetation in *Management Area A*; • Regeneration in *Management Area B*; • Protected Habitat in *Management Area C*; and	Lismore City Council	Ongoing.

Item Number	Item	Commitment	Responsibility	Timing
		Vegetation removal in *Management Area D*.		
3.2		The Koala Plan of Management prepared by Conacher Travers (2006) (refer to *Appendix F*) will be implemented including: • Habitat protection works; • Habitat restoration works; • Traffic management controls; • Dog/ Feral Animal Management measures; and • Bushfire Management.	Lismore City Council	Ongoing.
3.3		Lismore City Council will provide at least 45 hectares of mature, vegetated land to be retained to offset the 10.2 hectares to be lost as a result of the proposed development. The offset will be provided at a rate of approximately 4:1. The 45 hectares will be the same vegetation type as that to be removed (Tall Open Forest) or a type of higher ecological significance (such as Lowland Rainforest EEC or Koala Habitat) and may be located at a single site or numerous sites that Council own in the LGA, which are suitable to be set aside for ecological preservation. Lismore City Council will undertake ecological assessments of any land proposed to be identified as a vegetation offset site and develop an offset strategy for submission to the DoP and DECC for approval, taking into consideration DECC's document *Principles for the Use of Biodiversity Offsets in NSW*. The provision of nest and roost boxes will only be a short term measure, that is, provided as a measure for the protection and conservation of fauna during felling of hollow-bearing trees.	Lismore City Council	Prior to the removal of the existing vegetation.
4	**Aboriginal Heritage**			
4.1		All site employees/contractors will undergo site induction training that includes stop work procedures if archaeological sites are discovered.	Lismore City Council	Ongoing.

Item Number	Item	Commitment	Responsibility	Timing
4.2		Information regarding heritage requirements will be made available on site for employees/contractors.	Lismore City Council	Ongoing.
4.3		If an Aboriginal item is found all work will cease and the police, relevant Aboriginal community groups and a suitably qualified archaeologist contacted.	Lismore City Council	Ongoing.
5	Noise			
5.1		The quarry will operate according to the following hours: • Monday to Friday: 7.00am to 6.00pm; and • Saturday: 7.00am to 3.00pm. No work will be undertaken on Sundays or public holidays.	Lismore City Council	Ongoing.
5.2		Speed limits within the quarry site will be restricted to 40km/h and compression braking prohibited.	Lismore City Council	Ongoing.
5.3		4 metre earth bunds will be constructed to the north east and south west of the new southern quarry pit and a 5 metre earth bund will be constructed to the south of the existing Jaw Crusher as illustrated in Figures C.2 and C.3 in Annex C of the revised Noise Assessment (ERM, 2009[1]) provided as Annex B to the report. During the short construction period for these bunds, the noise limits will be relaxed. Nearby residents will be notified when this work will take place.	Lismore City Council	Prior to the operation of the expanded quarry.
5.4		Attended noise monitoring and plant equipment audits will be undertaken.	Lismore City Council	Annually.
5.5		Plant will be relocated to greater pit depths as the floor of the quarry gets deeper.	Lismore City Council	Ongoing.

Item Number	Item	Commitment	Responsibility	Timing
5.6		Noise Management Plan – the licensee must develop a Noise Management Plan for the quarry which must incorporate but not be limited to, the following: • noise compliance; • noise limits; • blasting noise; and • road traffic noise.	Lismore City Council	Prior to the operation of the expanded quarry.
5.7		A noise compliance assessment (including airblast overpressure and ground vibration from blasting) shall be submitted to the DECC within three (3) months of commencement of expanded operations at the premises. The assessment shall be prepared by a suitable qualified and experienced acoustical consultant and shall assess compliance with noise and blasting limits presented in conditions 5.8 and 6.1 - 6.4.	Lismore City Council	Within 3 months of commencement of expanded operations.

Item Number	Item	Commitment	Responsibility	Timing
5.8		Noise from the premises must not exceed the sound pressure level (noise) limits presented in the Table below. Note: the limits represent the sound pressure level (noise) contribution at the nominated receiver locations in the table.	Lismore City Council	Ongoing.

Noise Limits (dB(A))

Location (1)	Day(3)	Evening(4)	Night(5)	
	$L_{A,eq(15\ minute)}$	$L_{A,eq(15\ minute)}$	$L_{A,eq(15\ minute)}$	$L_{A(1\ minute)}$
[redacted]	38	N/A	N/A	N/A
[redacted]	35	N/A	N/A	N/A

(1) Receiver locations as identified in *Blakebrook Quarry Expansion – Environmental Assessment Report – Final Report Volume 1 (Report No. 0066641), Appendix C, ERM 2008.*;

(2) Noise limits may be exceeded by no more than 2dB(A) for a maximum of ten days in any reporting period during operation of the permanent jaw crusher;

(3) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays;

(4) Evening is defined as the period from 6pm to 10pm on any day;

(5) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.

Item Number	Item	Commitment	Responsibility	Timing
5.9		Noise from Blakebrook Quarry is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the noise level limits in Condition 5.8 unless otherwise stated.	Lismore City Council	Ongoing.
5.10		Where it can be demonstrated that direct measurement of noise from the Blakebrook Quarry is impractical, the DECC may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy. The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.	Lismore City Council	Ongoing.
5.11		The noise emission limits identified in Condition 5.8 apply under meteorological conditions of wind speed up to 3 metres per second at 10 metres above ground level.	Lismore City Council	Ongoing.
6	**Blasting Limits**			
6.1		The overpressure level from blasting operations at the Blakebrook Quarry must not exceed 115dB (Lin Peak) for more than 5 per cent of the total blasts over each reporting period of 12 months. Error margins associated with any monitoring equipment used to measure this area are not to be taken into account in determining whether or not the limit has been exceeded.	Lismore City Council	Ongoing.
6.2		The overpressure level from blasting operations at the Blakebrook Quarry must not exceed 120dB (Lin Peak) at any time. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	Lismore City Council	Ongoing.
6.3		Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec for more than 5 per cent of the total number of blasts over each reporting period of 12 months. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	Lismore City Council	Ongoing.

Item Number	Item	Commitment	Responsibility	Timing
6.4		Blasting operations at the premises may only take place between 9.00am-5.00pm Monday to Friday. (Where compelling safety reasons exist, the Authority may permit a blast to occur outside the abovementioned hours. Prior written (or facsimile) notification of any such blast must be made to the Authority. To determine compliance with Conditions 6.1-6.4: a) airblast overpressure and ground vibration levels must be measured and electronically recorded at the closest and potentially most exposed receiver location in L6.1 to the blast activity for all blasts carried out in or on the premises; and b) Instrumentation used to measure the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006.	Lismore City Council	Ongoing.
7	**Air Quality**			
7.1		All unsealed haul routes on the site will be watered at a rate of 2 l/m²/minute as required.	Lismore City Council	Ongoing.
7.2		Water sprays will be used on all mobile crushing, stockpiles and screening equipment to minimise airborne particulate matter.	Lismore City Council	Ongoing.
7.3		All road trucks must have tarpaulin covers in place prior to leaving the weighbridge.	Lismore City Council	Ongoing.
7.4		A dust deposition gauge network will be developed to ensure compliance with cumulative dust deposition criteria.	Lismore City Council	At or before production rates at the quarry reach 337,500 tonnes/ annum.
7.5		Stockpiles are to be seeded to minimize the potential for fugitive dust.	Lismore City Council	Ongoing
8	**Groundwater Management**			

Item Number	Item	Commitment	Responsibility	Timing
8.1		A detailed groundwater assessment will be undertaken prior to the commencement of vertical extraction. This will involve the installation of nested ground water monitoring wells. The wells will be installed to at least two depths at a minimum of three separate locations around the perimeter of the quarry in order to intercept identified distinct water bearing zones.	Lismore City Council	Following approval of the quarry expansion and prior to the commencement of vertical extraction
8.2		A quarterly groundwater monitoring program will be undertaken as detailed in *Section 8.4.1* of the EA (ERM, 2009) and will involve analysis by a NATA laboratory.	Lismore City Council	Quarterly following approval of the quarry expansion and prior to the commencement of vertical extraction
8.3		Should it be determined that environmental flows from springs are being reduced by extraction activities, investigation will commence on supplementing flows using water collected in the quarry pit. Water collected in the quarry will have to meet water quality criteria before it is discharged, with discharge to be licensed under the DECC.	Lismore City Council	Ongoing.
9	**Surface Water Management**			
9.1		Clean run-off from the surround small sub-catchments will be diverted away from the quarry pits to existing ephemeral water courses. Water collected within the pits will be stored in in-pit dams and used for processing and dust suppression purposes. No quarry water is proposed to be discharged from the site as part of the proposed expansion activities.	Lismore City Council	Ongoing.

Item Number	Item	Commitment	Responsibility	Timing
10	Quarry Rehabilitation			
10.1		A progressive rehabilitation approach will be undertaken to make safe the site and to rehabilitate the site and benches to tie into the surrounding woodland. All on-site infrastructure will be removed.	Lismore City Council	Ongoing and on completion of quarrying.
10.2		Lismore City Council will commit to the ongoing allocation of funds for the progressive rehabilitation of the Quarry in the determination of its annual operational budget. The allocation of funds will be tied to demand and the output of the Quarry, with the allocation to be in the order of $30 000 to $50 000. The allocated money will be accumulated pending the availability of areas to be rehabilitated. The budget allocation may also be increased over the lifetime of the quarry to reflect inflationary changes and rehabilitation needs as necessary.	Lismore City Council	Ongoing and on completion of quarrying
10.3		A suitably qualified and experienced professional will be engaged to carry out on-going maintenance and monitoring. This will involve activities such as bushland rehabilitation, weed removal and nest box erection.	Lismore City Council	Upon commencement of rehabilitation activities and upon completion of quarrying.
10.4		The success of the rehabilitation program will be monitored in accordance with the *Mine Rehabilitation Handbook*.	Lismore City Council	Upon commencement of rehabilitation activities and upon completion of quarrying.

APPENDIX 3
RECEIVER LOCATION PLAN

Legend

Noise Logger

Noise Assessment Locations

Client:	Lismore City Council	
Project:	Blakebrook Quarry Noise Assessment	
Drawing No:	0066641s_01_R1	
Date:	11/06/2009	Drawing size: A4
Drawn by:	GC	Reviewed by: MS
Source:	-	
Scale:	Not to Scale	

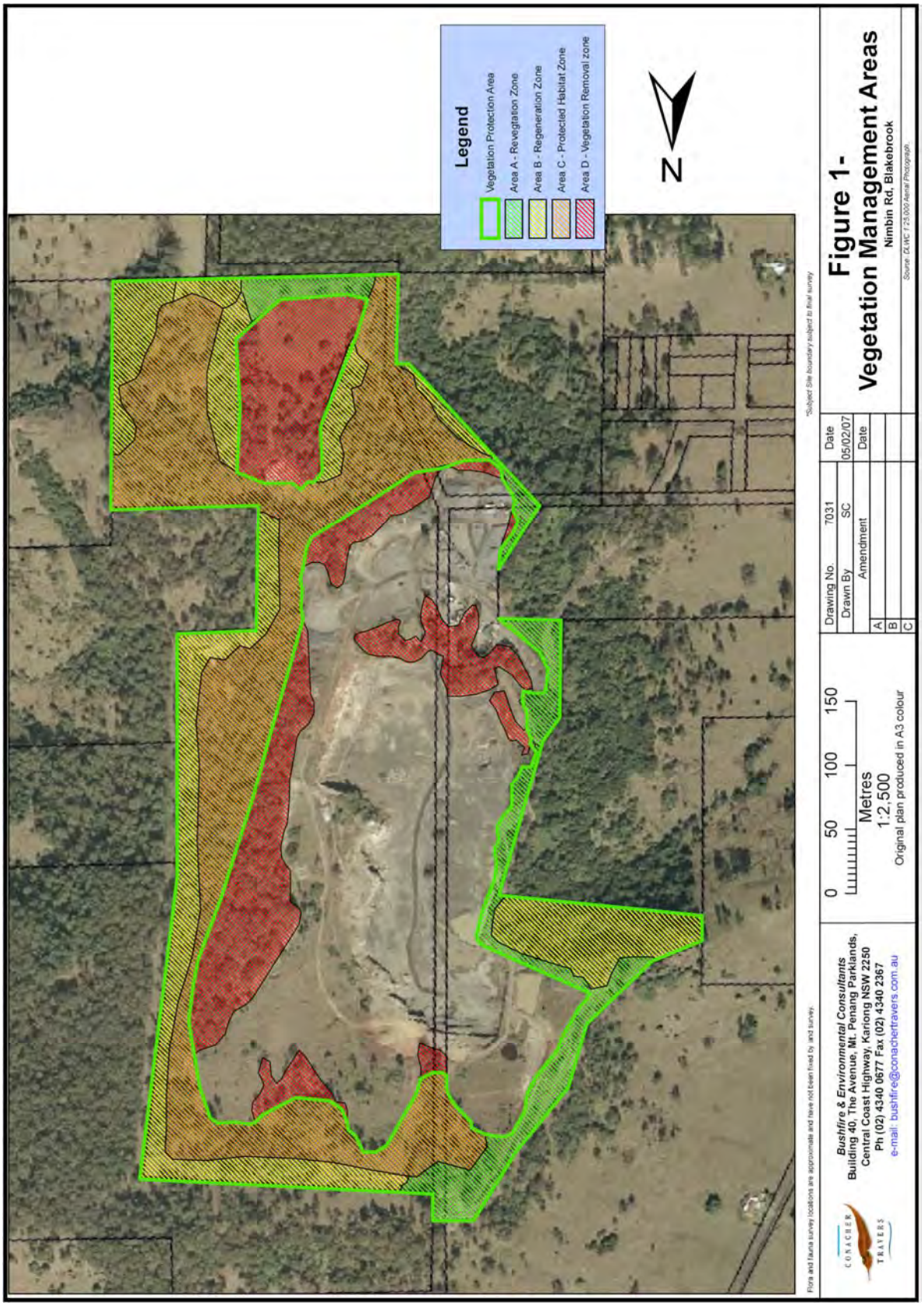
N

Figure 2.1
Noise Assessment and Logging Locations

Environmental Resources Management Australia Pty Ltd
Building C, 33 Saunders St, Pyrmont, NSW 2009
Telephone +61 2 8584 8888

ERM

APPENDIX 4
BIODIVERSITY OFFSET STRATEGY



APPENDIX 5
NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in Table 2 are to apply under all meteorological conditions except the following:
   (a) wind speeds greater than 3 m/s at 10 m above ground level; or
   (b) temperature inversion conditions between 1.5°C and 3°C/100 m and wind speed greater than 2 m/s at 10 m above ground level; or
   (c) temperature inversion conditions greater than 3°C/100 m.

Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station required under condition 13 of Schedule 3.

Compliance Monitoring

3. A noise compliance assessment must be undertaken within two months of commencing mining operations under EA (Mod 1). The assessment must be conducted by a suitably qualified and experienced acoustical practitioner and must assess compliance with the noise criteria in Table 2. A report must be provided to the Secretary and EPA within 1 month of the assessment.

4. Unless the Secretary agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial Noise Policy (as amended from time to time), in particular the requirements relating to:
   (a) monitoring locations for the collection of representative noise data;
   (b) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment;
   (c) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration; and
   (d) the use of an appropriate modifying factor for low frequency noise to be applied during compliance testing at any individual residence if low frequency noise is present (in accordance with the INP) and before comparison with the specified noise levels in the approval.

NSW GOVERNMENT | Planning & Environment

Contact: James Epstein
Phone: 02 6670 8650
Email: james.epstein@planning.nsw.gov.au
compliance@planning.nsw.gov.au
Our Ref: PA 07_0020

Lismore City Council
Attn: [redacted]
Commercial Services Business Manager
PO Box 23A
LISMORE NSW 2480

Blakebrook Quarry – PA 07_0020
2017 Annual Environmental Management Report

Dear [redacted]

Reference is made to the Blakebrook Quarry (the Quarry) 2017 Annual Environmental Management Report (AEMR) (the report) for the period 1 January 2017 to 31 December 2017 submitted to the Department of Planning and Environment (the Department) on 29 March 2018 as required under Schedule 5, Condition 4, of PA 07_0020 (the approval).

The Department has reviewed the 2017 AEMR and considers it to be generally in accordance with the approval. However, in accordance with Schedule 2, Condition 4, the Secretary requests that the following information be provided to the Department by **27 July 2018**:

a) Schedule 2, Condition 8 – Production data provided in Section 1.4 and 2.1.3 states that 14,253 tonnes were produced during the reporting period. A review of Figure 2.1 shows that this value would have been surpassed within the first two months of operation. Please review these sections and provide the correct production value;

b) Schedule 2, Condition 8 – The Department notes that the truck movement data submitted as Attachment 7 only provides data from 3 July 2017 onwards. Please provide truck movement data for the entire reporting period to ensure compliance with Schedule 2, Condition 8 of the approval; and

c) Schedule 3, Condition 19 – In accordance with Section 7.4 of the currently approved Groundwater Management Plan and Section 7.3 of the currently approved Soil and Water Management Plan, as required by Schedule 3, Condition 19 of the approval, the Department has noted multiple occasions where groundwater quality trigger values, as described in *ANZECC (2000) Australian and New Zealand Guidelines for fresh and marine water quality*, have been exceeded. Exceedances for pH, Aluminium, Copper, Nickel, Lead, Zinc and Mercury have been found upon review of Attachment 11 and 13. Please provide the circumstances under which exceedances of the approved criteria went unreported and what is currently being done to manage groundwater.

Furthermore, in accordance with Schedule 2, Condition 4, the Secretary requests that the all subsequent AEMRs include the following:

a) Schedule 3, Condition 10 – Air quality monitoring data for the reporting period is to be tabulated to show compliance with the limits shown in Table 4: Air Quality Criteria;

b) Ensure that the requested Statement of Compliance against each condition of the approval contains all relevant information. The Department notes that Attachment 4 of the 2017 report is still in draft format with some information missing.

NSW GOVERNMENT | Planning & Environment

The above requests should be tabulated within the next AEMR, with specific section references as to where each point has been addressed within the report.

Additionally, the Department notes that the Quarry currently has outstanding management plan amendments as requested on 24 April 2018. Please ensure that the requested amendments are provided to the Department by specified due dates.

Lastly, please be advised that during the 2018 reporting period an Independent Environmental Audit is required to be undertaken accordance with Schedule 5, Condition 12. A detailed Groundwater Assessment is also due to be submitted to the Department by 30 December 2018, in accordance with Schedule 3, Condition 17. Please ensure that both are completed during the 2018 reporting period.

Should you have any queries on this matter, please do not hesitate to contact James Epstein as per the details above.

Yours sincerely,

[redacted]

[redacted]

Team Leader – Compliance
As nominee of the Secretary

lismore city council

Our ref: AF18/2220
Your ref: PA 07_0020
Contact: Eleisha Went

26 July 2018

Department of Planning and Environment
Compliance Unit
Attn: [redacted]
PO Box 72
MURWILLUMBAH NSW 2484

Dear [redacted]

RE: Blakebrook Quarry 2017 Annual Environmental Monitoring Report

Thank you for your letter regarding the Blakebrook Quarry 2017 Annual Environmental Monitoring Report (AEMR) for the period of 1 January 2017 to 31 December 2017 submitted to the Department of Planning and Environment (DPE) on 29 March 2018 as required under Schedule 5, Condition 4, of PA 07_0020 (the approval).

Lismore City Council (LCC) provides the following information as requested:

a) The production data provided within section 1.4 and 2.1.3 was incorrectly typed. The correct figure of production for the period of 1 January 2017 to 31 December 2017 was 142,530 tonnes.

b) Truck movement data for the entire period of 1 January 2017 to 31 December 2017 is attached (Attachment 1).

c) For unknown reasons it appears the AEMR attachment 14 – Water Quality Investigation Report was not received by DPE. Please refer to *Preliminary Water Quality Investigation* report attached (Attachment 2). Please also refer to the attached *Regional assessment of groundwater quality for the Clarence-Moreton bioregion* (McJannet et al, 2015), which indicates that the monitoring results for the site are generally below the maximum ranges found within the groundwater of the basalt geology of the region (pages 43-49) (Attachment 3).

   LCC has also engaged Gilbert and Sutherland to undertake a groundwater investigation, which will include a groundwater baseline determination to potentially amend groundwater triggers for the Blakebrook Quarry. In regards to the unreported exceedances LCC's Commercial Services unit had undergone a restructure during this period and the requirement to immediately report such exceedances in addition to the annual reporting was misinterpreted. Moving forward LCC has arranged a meeting to discuss departmental reporting and water management plan requirements with Environmental Analysis Laboratory who undertake LCC's monitoring to ensure LCC is immediately notified of any exceedances for reporting and management purposes. In the

future LCC will endeavour to ensure that any exceedances are identified and promptly reported to the DPE and/or relevant agencies.

In relation to the Statement of Compliance missing information LCC provides the following:

- Annual Extraction Material Return June 2017 (Attachment 4).
- Meteorological Monitoring - The new meteorological station was installed on 12 February 2018.
- Noise assessment report was provided to DPE on 29 June 2018

Furthermore, LCC has been working closely with Environmental Resource Management Australia to finalise outstanding management plans. On 6 July 2018, LCC hosted a teleconference with DPE to discuss progress. Management plans are progressing and are anticipated to be submitted to DPE by the required due date of 31 July 2018. Additionally, LCC expects to receive their draft Biodiversity Offset Strategy in the next 4 weeks. Once received LCC will submit this to the DPE for comment. LCC is also currently awaiting a response to the draft Biodiversity Regeneration Plan submitted to the department on 12 June 2018.

Should you require any further information, please do not hesitate to contact [redacted], Commercial Services Compliance Coordinator on 0427828315 or via [redacted]@lismore.nsw.gov.au.

Yours faithfully

[redacted]

Commercial Services Manager

NSW GOVERNMENT | Planning & Environment

Contact: James Epstein
Phone: 02 6670 8650
Email: james.epstein@planning.nsw.gov.au
compliance@planning.nsw.gov.au
Our Ref: PA 07_0020

Lismore City Council
Attn: [redacted]
Commercial Services Business Manager
PO Box 23A
LISMORE NSW 2480

Blakebrook Quarry – PA 07_0020
2017 Annual Environmental Management Report

Dear [redacted]

Reference is made to the Blakebrook Quarry (the Quarry) 2017 Annual Environmental Management Report (AEMR) (the report) for the period 1 January 2017 to 31 December 2017 submitted to the Department of Planning and Environment (the Department) on 29 March 2018 as required under Schedule 5, Condition 4, of PA 07_0020 (the approval).

The Department has reviewed the 2017 AEMR and considers it to be generally in accordance with the approval. However, in accordance with Schedule 2, Condition 4, the Secretary requests that the following information be provided to the Department by **27 July 2018**:

a) Schedule 2, Condition 8 – Production data provided in Section 1.4 and 2.1.3 states that 14,253 tonnes were produced during the reporting period. A review of Figure 2.1 shows that this value would have been surpassed within the first two months of operation. Please review these sections and provide the correct production value;

b) Schedule 2, Condition 8 – The Department notes that the truck movement data submitted as Attachment 7 only provides data from 3 July 2017 onwards. Please provide truck movement data for the entire reporting period to ensure compliance with Schedule 2, Condition 8 of the approval; and

c) Schedule 3, Condition 19 – In accordance with Section 7.4 of the currently approved Groundwater Management Plan and Section 7.3 of the currently approved Soil and Water Management Plan, as required by Schedule 3, Condition 19 of the approval, the Department has noted multiple occasions where groundwater quality trigger values, as described in *ANZECC (2000) Australian and New Zealand Guidelines for fresh and marine water quality*, have been exceeded. Exceedances for pH, Aluminium, Copper, Nickel, Lead, Zinc and Mercury have been found upon review of Attachment 11 and 13. Please provide the circumstances under which exceedances of the approved criteria went unreported and what is currently being done to manage groundwater.

Furthermore, in accordance with Schedule 2, Condition 4, the Secretary requests that the all subsequent AEMRs include the following:

a) Schedule 3, Condition 10 – Air quality monitoring data for the reporting period is to be tabulated to show compliance with the limits shown in Table 4: Air Quality Criteria;

b) Ensure that the requested Statement of Compliance against each condition of the approval contains all relevant information. The Department notes that Attachment 4 of the 2017 report is still in draft format with some information missing.

NSW GOVERNMENT | Planning & Environment

The above requests should be tabulated within the next AEMR, with specific section references as to where each point has been addressed within the report.

Additionally, the Department notes that the Quarry currently has outstanding management plan amendments as requested on 24 April 2018. Please ensure that the requested amendments are provided to the Department by specified due dates.

Lastly, please be advised that during the 2018 reporting period an Independent Environmental Audit is required to be undertaken accordance with Schedule 5, Condition 12. A detailed Groundwater Assessment is also due to be submitted to the Department by 30 December 2018, in accordance with Schedule 3, Condition 17. Please ensure that both are completed during the 2018 reporting period.

Should you have any queries on this matter, please do not hesitate to contact James Epstein as per the details above.

Yours sincerely,

[redacted]

[redacted]

Team Leader – Compliance
As nominee of the Secretary

Environment Protection Licence

Licence - 3384

Licence Details	
Number:	3384
Anniversary Date:	17-January

Licensee

LISMORE CITY COUNCIL

PO BOX 23A

GOONELLABAH NSW 2480

Premises

LISMORE OR BLAKEBROOK QUARRY

NIMBIN ROAD

BLAKEBROOK NSW 2480

Scheduled Activity

Extractive activities

Fee Based Activity	Scale
Land-based extractive activity	> 100000-500000 T annual capacity to extract, process or store

Region

North - North Coast

NSW Govt Offices, 49 Victoria Street
GRAFTON NSW 2460

Phone: (02) 6640 2500

Fax: (02) 6642 7743

PO Box 498

GRAFTON NSW 2460

Environment Protection Licence

Licence - 3384

Environment Protection Licence

Licence - 3384

Environment Protection Licence

Licence - 3384

Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

Environment Protection Licence

Licence - 3384

The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

LISMORE CITY COUNCIL
PO BOX 23A
GOONELLABAH NSW 2480

subject to the conditions which follow.

Environment Protection Licence

Licence - 3384

1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Extractive activities	Land-based extractive activity	> 100000 - 500000 T annual capacity to extract, process or store

A1.2 This licence regulates water pollution resulting from the activity/ies carried out at the premises specified in A2.

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
LISMORE OR BLAKEBROOK QUARRY
NIMBIN ROAD
BLAKEBROOK
NSW 2480
LOT 201 DP 1227138

A3 Other activities

A3.1 This licence applies to all other activities carried on at the premises, including:

Ancillary Activity
Bitumen Pre-mix or Hot-mix Industries

A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence

application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:
a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.2 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
1	Wet weather overflow	Wet weather overflow	Spillway of the settlement dam at the southern end of the site nearest the weighbridge as identified on site map entitled Blake Brook Quarry Water Management dated 21 July 2005

3 Limit Conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L1.2 Discharge of TSS to waters from Point 1 is permitted when the discharge occurs solely as a result of rainfall at the premises exceeding a total of 60.2 millimetres over any consecutive five day period.

L1.3 The licensee must take all practical measures to avoid or minimise generation of total suspended solids

Environment Protection Licence

Licence - 3384

L2 Concentration limits

L2.1 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\s.

L2.2 Water and/or Land Concentration Limits

POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Oil and grease (Wet)	milligrams per litre				10
pH	pH				6.5 -8.5
Total suspended solids	milligrams per litre				50

L2.3 For each monitoring/discharge point or utilisation area specified in the table\s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L2.4 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

L3 Waste

L3.1 The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal, excluding the following:

a) Glass sand recovered from the Lismore Recycling and Recovery Centre.

L4 Noise limits

L4.1 Noise from the licenced premise must not exceed an LAeq (15 minute) noise emission criterion of 36db(A) at Location 2 and 35db(A) at all other locations as stated in Section 4 of Schedule 3 within the Department of Planning - Section 75J of the Environmental Planning & Assessment Act 1979 - Blakebrook Quarry Project - Project No. 07_0020 , except as expressly provided by this licence.

L4.2 The noise limits set out in the preceding conditions apply under all meteorological conditions except for the following:

Wind speeds greater than 3 meters/second at 10 meters above ground level; or
Temperature inversion conditions greater than 3ºC/100 meters.

L5 Blasting

L5.1 The airblast overpressure level from blasting operations in or on the premises must not exceed:
a) 115 dB (Lin Peak) for more than 5% of the total number of blasts during each reporting period; and
b) 120 dB (Lin Peak) at any time.
as measured at the nearest sensitive receiver

L5.2 The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed:

a) 5mm/s for more than 5% of the total number of blasts carried out on the premises during each reporting period; and
b) 10 mm/s at any time.

At the most affected residence or noise sensitive location that is not owned by the licensee or subject to a private agreement between the owner of the residence or noise sensitive location and the licensee as to an alternative ground vibration level .

L5.3 All sensitive receivers are to be given at least 24 hours notice when blasting is to be undertaken.

L6 Hours of operation

L6.1 Activities covered by this licence must be in accordance with the operating hours set out in the table below

Activity	Permissible Hours
Quarrying activities including loading and dispatch of trucks	07:00 to 18:00 Monday to Friday; 07:00 to 15:00 on Saturday and at no time on Sundays and Public Holidays
Blasting	10:00 to 15:00 Monday to Friday and at no time on Saturday, Sunday and Public Holidays
Asphalt plant	06:00 to 17:30 Monday to Saturday and at no time on Sundays and Public Holidays
Maintenance	May be conducted at any time provided that these activities are not audible at any privately-owned residence

L6.2 The following activities may be carried out outside the hours specified in Condition L6.1 above:

- delivery or despatch of material outside the hours of as requested by police or other public authorities
- emergency work to avoid the loss of lives, property or to prevent environmental harm
- operation of the asphalt plant with the permission of Lismore City Council for emergency or specific works where a traffic management problem is involved.

In such circumstances, prior notification must be provided to the EPA and affected residents as prior to undertaking the activity or as soon as possible thereafter.

4 Operating Conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.
This includes:
a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
a) must be maintained in a proper and efficient condition; and
b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

O4 Processes and management

O4.1 Sediment Basins shall be treated, if required, to reduce the Total Suspended Solids level to the licenced concentration limit before being discharged to the environment. Treatment can be with gypsum or any other material that has been approved by the EPA.

O4.2 The licensee must maximise the diversion of run-on waters from lands upslope and around the site whilst land disturbance activities are being undertaken.

O4.3 The licensee must maximise the diversion of stormwater runoff containing suspended solids to sediment basins installed on the premises.

O4.4 Where sediment basins are necessary, all sediment basins and associated drainage must be installed and commissioned prior to the commencement of any clearing or grubbing works within the catchment area of the sediment basin that may cause sediment to leave the site.

O4.5 The licensee must ensure the design storage capacity of the sediment basins installed on the premises is reinstated within 5 days of the cessation of a rainfall event that causes runoff to occur on or from the premises.

O4.6 The licensee must ensure that sampling point(s) for water discharged from the sediment basin(s) are provided and maintained in an appropriate condition to permit:
a) the clear identification of each sediment basin and discharge point;
b) the collection of representative samples of the water discharged from the sediment basin(s); and
c) access to the sampling point(s) at all times by an authorised officer of the EPA.

O4.7 The licensee must endeavour to maximise the reuse of captured stormwater on the premises.

O4.8 Each sedimentation basin must have a marker (the “sedimentation basin marker”) that identifies the upper level of the sediment storage zone.

O4.9 Whenever the level of liquid and other material in any sedimentation basin exceeds the level indicated by the sedimentation basin marker, the licensee must take all practical measures as soon as possible to reduce the level of liquid and other material in the sedimentation basin.

O4.10 The sediment basins must meet the design and operational standards of Managing Urban Stormwater Soils and Construction: Volume 1 and Volume 2 E. Mines and quarries. The sediment basin sizes have been calculated to total 20.05 ML as outlined in the Blakebrook Quarry Expansion - Soil and Water Management Sub-Plan - April 2011, prepared byEnvironmental Resources Management Australia on behalf of Lismore City Council

5 Monitoring and Recording Conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:
a) in a legible form, or in a form that can readily be reduced to a legible form;
b) kept for at least 4 years after the monitoring or event to which they relate took place; and
c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
a) the date(s) on which the sample was taken;
b) the time(s) at which the sample was collected;
c) the point at which the sample was taken; and
d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the

frequency, specified opposite in the other columns:

M2.2 Water and/ or Land Monitoring Requirements

POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
Oil and Grease	milligrams per kilogram	Special Frequency 1	Grab sample
pH	pH	Special Frequency 1	Grab sample
Total suspended solids	micrograms per litre	Special Frequency 1	Grab sample

M2.3 For the purposes of the table(s) above Special Frequency 1 means the collection of samples once during each discharge event arising from rainfall not exceeding the 90 percentile five day rainevent of 60.2mm falling in total over a period of up to five days..

M3 Testing methods - concentration limits

M3.1 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M4 Environmental monitoring

M4.1 The licensee is required to install and maintain a rainfall depth measuring device.

M4.2 Rainfall at the premises must be measured and recorded in millimetres per 24 hour period, at the same time each day.

M5 Recording of pollution complaints

M5.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M5.2 The record must include details of the following:
a) the date and time of the complaint;
b) the method by which the complaint was made;
c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
d) the nature of the complaint;
e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the

complainant; and
f) if no action was taken by the licensee, the reasons why no action was taken.

M5.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M5.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M6 Telephone complaints line

M6.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M6.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M6.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

M7 Blasting

M7.1 To determine compliance with condition(s) L5.2 and L5.3:
a) Airblast overpressure and ground vibration levels must be measured at the most affected residence or noise sensitive location that is not owned by the licensee or subject to a private agreement between the owner of the residence or noise sensitive location and the licensee as to an alternative level - for all blasts carried out in or on the premises; and
b) Instrumentation used to measure the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006.

6 Reporting Conditions

R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Load based Fee,
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be

completed and returned to the EPA.

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

R1.3 Where this licence is transferred from the licensee to a new licensee:
a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
a) the licence holder; or
b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R1.8 The licensee must report any exceedence of the licence blasting limits to the regional office of the EPA as soon as practicable after the exceedence becomes known to the licensee or to one of the licensee's employees or agents.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

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

R2 Notification of environmental harm

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in

accordance with the requirements of Part 5.7 of the Act.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
a) where this licence applies to premises, an event has occurred at the premises; or
b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,
and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:
a) the cause, time and duration of the event;
b) the type, volume and concentration of every pollutant discharged as a result of the event;
c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

7 General Conditions

G1 Copy of licence kept at the premises or plant

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

Environment Protection Licence

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8 Pollution Studies and Reduction Programs

U1 Soil and Water Management Plan

U1.1 A Soil and Water Management Plan (SWMP) must be prepared and submitted to the EPA by 18 December 2017 and implemented by 13 January 2018. The plan must describe the measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants from the premises. The SWMP must be prepared in accordance with the requirements of the *Managing Urban Stormwater: Soils and Construction, Volume 1, 4th edition, March 2004* Landcom (the Blue Book) and *Managing Urban Stormwater: Soils and Construction, Volume 2E Mines and Quarries*, 2008, DECC.

Environment Protection Licence

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Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environmen t Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 mo nths. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.

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TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non-putrescible), special waste or hazardous waste

[redacted]

Environment Protection Authority

(By Delegation)

Date of this edition: 28-August-2000

Environment Protection Licence

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End Notes

1	Licence varied by notice 1012134, issued on 02-Apr-2002, which came into effect on 27-Apr-2002.
2	Licence varied by notice 1017834, issued on 03-Jun-2002, which came into effect on 28-Jun-2002.
3	Licence varied by notice 1020616, issued on 12-Sep-2002, which came into effect on 07-Oct-2002.
4	Licence varied by notice 1026159, issued on 31-Mar-2003, which came into effect on 25-Apr-2003.
5	Licence varied by notice 1031250, issued on 03-Oct-2003, which came into effect on 28-Oct-2003.
6	Licence varied by notice 1045315, issued on 11-Mar-2005, which came into effect on 05-Apr-2005.
7	Licence varied by notice 1049382, issued on 25-Aug-2005, which came into effect on 19-Sep-2005.
8	Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
9	Licence varied by notice 1508293 issued on 22-Aug-2012
10	Licence varied by notice 1525659 issued on 30-Nov-2015
11	Licence varied by notice 1558031 issued on 27-Nov-2017
12	Licence varied by notice 1568156 issued on 06-Aug-2018

Planning & Environment
NSW GOVERNMENT | Resources & Geoscience

Form S 1

RETURN FOR EXTRACTIVE MATERIALS: YEAR ENDED 30 JUNE 2018

Quote RIMS ID in all correspondence

Quarry Id: 1116001 Rims ID: 400286

Operators Name: LISMORE CITY COUNCIL
Address: PO BOX 23A
LISMORE
NSW 2480
Email: [redacted]@lismore.nsw.gov.au

Quarry Name: Northern Rivers Quarry
Quarry Address: 540 Nimbin Road Blakebrook

Inquiries please telephone: (02) 4063 6713

Completed or Nil Returns
Email – mineral.royalty@planning.nsw.gov.au
Postal Address (see address below)

Please amend name, postal address and location of mine or quarry if incorrect or incomplete

2017-2018

The return should be completed and forwarded to the **MANAGER ASSESSMENT COORDINATION, RESOURCE OPERATIONS, NSW PLANNING & ENVIRONMENT, PO BOX 344 HUNTER REGION MAIL CENTRE NSW 2310 on or before 31 October 2018.** If completion of the return is unavoidably delayed, an application for extension of time should be requested **before** the due date. If no work was done during the year, a **NIL** return must be forwarded.

The return should relate to the **above quarrying establishment**, and should cover the operations of quarrying and treatment (such as crushing, screening, washing etc.) carried out at or near the quarry. A return is required even if the operations are solely of a developmental nature, and whether the area being worked is held under a mining title or otherwise.

Director Titles Assessments

Please complete all of the following information to assist in identifying the location of the Quarry

Typical Geology Basalt

Nearest Town to Quarry Lismore

Local Council Name Lismore City Council

Deposited Plan and Lot Number/s of Quarry Lot 102 / 817730 , 200 , 201 / 1013944

Email Address of Operator [redacted]ismore.nsw.gov.au

Name of Owner or Licensee Lismore City Council

Postal Address of Licensee PO BOX 23A , Lismore NSW 2480

Licence/Lease Number/s (if any)
From Mineral Resources NSW (Industry & Investment NSW) N/A

From Department of Lands or other Department N/A

If any output was obtained from land NOT held under licence from the above Departments, state the Name/s and Address/es of the Owners of the land

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- To the best of my knowledge, the particulars which have been entered in this return are correct and no blank spaces have been left where figures should have been inserted.
- **SIGNATURE of PROPRIETOR or MANAGER** [redacted] **DATE** 16/7/2018
- **PERSON to be contacted if queries arise regarding this return** [redacted]
- **NAME** (Block letters) [redacted] **Telephone** 1300878387

SALES During 2017-2018

Production information may be published in aggregated form for statistical reporting. However, production data for individual operations is kept strictly confidential.

Product	Description	Quantity Tonnes
Virgin Materials		
• **Crushed Coarse Aggregates**		
Over 75mm		
Over 30mm to 75mm		
5mm to 30mm		
Under 5mm		
Natural Sand		
Manufactured Sand		
Prepared Road Base & Sub Base		
Other Unprocessed Materials		
Recycled Materials		
• **Crushed Coarse Aggregates**		
Over 75mm		
Over 30mm to 75mm		
5mm to 30mm		
Under 5mm		
Natural Sand		
Manufactured Sand		
Prepared Road Base & Sub Base		
Other Unprocessed Materials		
• **River Gravel**		
Over 30mm		
5mm to 30mm		
Under 5mm		
• **Construction Sand**	Excluding Industrial	
• **Industrial Sand**		
Foundry, Moulding		
Glass		
Other (Specify)		
• **Dimension Stone**	Building, Ornamental, Monumental	
Quarried in Blocks		
Quarried in Slabs		
• **Decorative Aggregate**	Including Terrazzo	
• **Loam**	Soil for Topdressing, Garden soil, Horticultural purposes)	
• **TOTAL SITE PRODUCTION**		
• **Gross Value ($) of all Sales**		
• **Type of Material**		
• **Number of Full-Time Equivalent (FTE) Employees**	Employees:	Contractors

Please Note: A return for clay based products can be obtained by contacting the inquiry number.

Blakebrook Quarry Truck Movements 2018

Date	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1st			64	209	55	85	0	41		PH	11	
2nd			55		100	51	32	31	73	24	12	81
3rd				100	54	429	42	14	16	14		6
4th		105	242	57	85	41	11		8	22	63	17
5th		18	77	15	30	52	11	183	5	3	11	10
6th		68	3	21	324	64	13	33	20		8	18
7th		45	3		81	35		36	70	63	17	5
8th	23	57	70	193	35	15	109	19		10	36	
9th	72	54	54	29	47		30	31	119	45	43	56
10th	71			92	79	207	57	48	27	43		61
11th	41	242	207	100	58	PH	51	13	65	5	115	64
12th	32	67	63	53	0	96	60	180	53	1	22	64
13th		96	94	67	300	96	92	58	30		15	48
14th	239	99	34		79	100	23	54	25	104	13	15
15th	70	40	28	341	60	93	313	24		31	11	
16th	56	53	42	79	105	31	96	26	200	8	19	252
17th	35			50	87	416	89	13	53	10		18
18th	66	355	261	51	99	84	36		36	10	80	7
19th	60	100	36	66		82	31	175	44	13	16	8
20th		65	58	65	430	66	14	16	26		22	4
21st	287	10	50		51	20		33	63	72	17	1
22nd	50	34	37	311	41	6	266	15		9	16	Closed
23rd	34	11	28	34	72		27	28	222	17	8	38
24th	21			44	89	258	89	28	31	19		Closed
25th	99	220	209	ph	75	35	53		39	31	79	PH
26th	ph	33	49	47		68	37	120	40	19	12	PH
27th		19	86	23	328	29	16	10	43		17	Closed
28th	204	71	52		24	19		12	29	95	21	Closed
29th	35		22	148	88	25	222	12		8	23	Closed
30th	55			39	93		36	16	182	15	8	0
31st	15				88	176	61	23		17		

Total	835	940	1005	1032	1675	1193	1007	634	723	374	378	346
Avg	32.12	37.60	37.22	39.69	64.42	45.88	38.73	24.38	27.81	13.85	14.54	12.81
	Indicates weekly truck movements											

Quarry Vehicle Exit Data - 2018

8/01/2018 7:26 AM	CK66NE	1
8/01/2018 7:34 AM	CC03HV	1
8/01/2018 8:14 AM	CK66NE	1
8/01/2018 8:34 AM	YWW896	1
8/01/2018 9:03 AM	BV35BT	1
8/01/2018 9:04 AM	CH97TC	1
8/01/2018 9:05 AM	CK66NE	1
8/01/2018 9:53 AM	CK66NE	1
8/01/2018 10:15 AM	BR95RD	1
8/01/2018 10:24 AM	CC03HV	1
8/01/2018 10:29 AM	BR88RD	1
8/01/2018 10:31 AM	AD75FF	1
8/01/2018 10:34 AM	CF72RB	1
8/01/2018 10:39 AM	CK66NE	1
8/01/2018 11:43 AM	BV47BS	1
8/01/2018 11:45 AM	AD75FF	1
8/01/2018 11:54 AM	CC03HV	1
8/01/2018 12:16 PM	BV35BT	1
8/01/2018 12:56 PM	CH97TC	1
8/01/2018 1:19 PM	BR88RD	1
8/01/2018 1:25 PM	BN57FF	1
8/01/2018 2:28 PM	CC03HV	1
8/01/2018 3:37 PM	CL40HT	1
9/01/2018 7:13 AM	AP34SU	1
9/01/2018 7:19 AM	CB42FS	1

9/01/2018 7:22 AM	BV35BT	1
9/01/2018 7:25 AM	CH97TC	1
9/01/2018 7:28 AM	CF72RB	1
9/01/2018 7:29 AM	AD23FS	1
9/01/2018 7:30 AM	CK30HM	1
9/01/2018 7:32 AM	CM17GJ	1
9/01/2018 7:33 AM	BR16RT	1
9/01/2018 7:34 AM	CN70EQ	1
9/01/2018 7:40 AM	BY80LZ	1
9/01/2018 8:04 AM	AM17XY	1
9/01/2018 8:48 AM	CC03HV	1
9/01/2018 8:49 AM	AD23FS	1
9/01/2018 8:55 AM	CF72RB	1
9/01/2018 8:59 AM	CM17GJ	1
9/01/2018 9:00 AM	BR16RT	1
9/01/2018 9:01 AM	CH97TC	1
9/01/2018 9:24 AM	AP34SU	1
9/01/2018 9:30 AM	CL40HT	1
9/01/2018 9:43 AM	CB42FS	1
9/01/2018 9:57 AM	AD23FS	1
9/01/2018 9:58 AM	CK66NE	1
9/01/2018 10:02 AM	CF72RB	1
9/01/2018 10:10 AM	CN70EQ	1
9/01/2018 10:11 AM	CM17GJ	1
9/01/2018 10:13 AM	BR16RT	1
9/01/2018 10:23 AM	CH97TC	1
9/01/2018 10:25 AM	BV35BT	1
9/01/2018 10:27 AM	BY80LZ	1
9/01/2018 10:56 AM	CK66NE	1
9/01/2018 11:06 AM	AD23FS	1
9/01/2018 11:07 AM	CF72RB	1
9/01/2018 11:09 AM	AM17XY	1
9/01/2018 11:15 AM	CC03HV	1

9/01/2018 11:18 AM	CM17GJ	1
9/01/2018 11:19 AM	BR16RT	1
9/01/2018 11:21 AM	CH97TC	1
9/01/2018 11:46 AM	AP34SU	1
9/01/2018 11:48 AM	BY68YC	1
9/01/2018 11:51 AM	CK66NE	1
9/01/2018 11:56 AM	BM70UW	1
9/01/2018 11:58 AM	CL40HT	1
9/01/2018 12:08 PM	CB42FS	1
9/01/2018 12:10 PM	AD23FS	2
9/01/2018 12:17 PM	CN70EQ	1
9/01/2018 12:30 PM	CH97TC	1
9/01/2018 12:32 PM	CM17GJ	1
9/01/2018 12:33 PM	BR16RT	1
9/01/2018 12:46 PM	BV35BT	1
9/01/2018 12:47 PM	CK66NE	1
9/01/2018 1:20 PM	CC90FS	1
9/01/2018 1:22 PM	BY68YC	2
9/01/2018 1:25 PM	AD23FS	1
9/01/2018 1:26 PM	CF72RB	1
9/01/2018 1:36 PM	BY80LZ	1
9/01/2018 1:38 PM	CH97TC	1
9/01/2018 1:45 PM	CM17GJ	1
9/01/2018 1:47 PM	BR16RT	1
9/01/2018 1:58 PM	AM17XY	1
9/01/2018 2:16 PM	BR83RD	1
9/01/2018 2:27 PM	CC03HV	1
9/01/2018 2:35 PM	BY68YC	1
9/01/2018 2:36 PM	BM70UW	1
9/01/2018 2:39 PM	CF72RB	1
9/01/2018 2:42 PM	AD23FS	1
9/01/2018 2:43 PM	CH97TC	1
9/01/2018 2:57 PM	CM17GJ	1

9/01/2018 2:58 PM	BR16RT	1
9/01/2018 3:16 PM	BR95RD	1
10/01/2018 7:10 AM	AD23FS	1
10/01/2018 7:12 AM	CF72RB	1
10/01/2018 7:13 AM	CB42FS	1
10/01/2018 7:15 AM	BR16RT	2
10/01/2018 7:18 AM	BY68YC	1
10/01/2018 7:19 AM	CM17GJ	1
10/01/2018 7:21 AM	BV35BT	1
10/01/2018 7:26 AM	CL40HT	1
10/01/2018 7:30 AM	CN70EQ	1
10/01/2018 7:36 AM	AM17XY	1
10/01/2018 7:41 AM	BY80LZ	1
10/01/2018 7:42 AM	AP34SU	1
10/01/2018 7:51 AM	BN47EF	1
10/01/2018 7:52 AM	CN10SD	1
10/01/2018 8:50 AM	AD23FS	1
10/01/2018 8:51 AM	BR16RT	1
10/01/2018 8:53 AM	BY68YC	1
10/01/2018 8:56 AM	CM17GJ	1
10/01/2018 9:02 AM	CC03HV	1
10/01/2018 9:21 AM	CF72RB	1
10/01/2018 9:37 AM	CN10SD	1
10/01/2018 9:45 AM	BV35BT	1
10/01/2018 9:51 AM	CB42FS	1
10/01/2018 9:57 AM	CL40HT	1
10/01/2018 10:08 AM	AP34SU	1
10/01/2018 10:23 AM	BY80LZ	1
10/01/2018 10:24 AM	AD23FS	2
10/01/2018 10:25 AM	BY68YC	1
10/01/2018 10:26 AM	CM17GJ	1
10/01/2018 10:27 AM	BN47EF	1
10/01/2018 10:30 AM	BR95RD	1

10/01/2018 10:40 AM	BV47BS	1
10/01/2018 10:41 AM	CN70EQ	1
10/01/2018 10:43 AM	CG20RC	1
10/01/2018 10:45 AM	AM17XY	1
10/01/2018 11:09 AM	BR95RD	1
10/01/2018 11:16 AM	CG63FZ	1
10/01/2018 11:17 AM	BR88RD	1
10/01/2018 11:27 AM	BV47BS	1
10/01/2018 11:28 AM	CN10SD	1
10/01/2018 11:35 AM	AD23FS	1
10/01/2018 11:37 AM	CO45JK	1
10/01/2018 11:38 AM	BR16RT	1
10/01/2018 11:39 AM	BY68YC	1
10/01/2018 11:45 AM	CM17GJ	1
10/01/2018 11:54 AM	BR95RD	1
10/01/2018 12:20 PM	AM17XY	1
10/01/2018 12:46 PM	AD23FS	1
10/01/2018 12:48 PM	BR16RT	1
10/01/2018 12:51 PM	BY68YC	1
10/01/2018 12:54 PM	CM17GJ	1
10/01/2018 1:08 PM	BR83RD	1
10/01/2018 1:15 PM	BR95RD	1
10/01/2018 1:22 PM	BV47BS	1
10/01/2018 1:27 PM	CN10SD	1
10/01/2018 2:05 PM	AM17XY	1
10/01/2018 2:06 PM	BR95RD	1
10/01/2018 2:07 PM	AD23FS	1
10/01/2018 2:08 PM	BV47BS	1
10/01/2018 2:12 PM	BY68YC	1
10/01/2018 2:15 PM	CO45JK	1
10/01/2018 2:16 PM	BR16RT	1
10/01/2018 2:17 PM	CM17GJ	1
10/01/2018 2:18 PM	BR83RD	1

10/01/2018 2:47 PM	BR95RD	1
10/01/2018 2:50 PM	BV47BS	1
10/01/2018 3:01 PM	CN10SD	1
10/01/2018 3:35 PM	CC03HV	1
10/01/2018 3:37 PM	AP34SU	1
11/01/2018 7:33 AM	CO45JK	1
11/01/2018 7:34 AM	BR83RD	1
11/01/2018 7:36 AM	BN98PH	1
11/01/2018 7:37 AM	BV47BS	1
11/01/2018 7:39 AM	CG63FZ	1
11/01/2018 7:47 AM	BN98PH	1
11/01/2018 7:49 AM	AC71LL	1
11/01/2018 7:57 AM	CN10SD	1
11/01/2018 8:07 AM	AM60MH	1
11/01/2018 8:30 AM	CF72RB	1
11/01/2018 8:45 AM	AP34SU	1
11/01/2018 9:06 AM	CC03HV	1
11/01/2018 9:18 AM	CO45JK	1
11/01/2018 9:28 AM	CN10SD	1
11/01/2018 9:49 AM	BR83RD	2
11/01/2018 9:51 AM	BR95RD	1
11/01/2018 9:54 AM	BN98PH	1
11/01/2018 10:22 AM	AC71LL	1
11/01/2018 10:33 AM	BR95RD	1
11/01/2018 10:39 AM	BV47BS	1
11/01/2018 10:44 AM	AM60MH	1
11/01/2018 10:47 AM	CF72RB	1
11/01/2018 10:59 AM	CO45JK	1
11/01/2018 11:16 AM	BR95RD	1
11/01/2018 11:17 AM	BV47BS	1
11/01/2018 11:20 AM	AP34SU	1
11/01/2018 11:22 AM	CC03HV	1
11/01/2018 11:50 AM	BN98PH	1

11/01/2018 11:58 AM	BR83RD	1
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20/04/2018 10:07 AM	CG20RC	1
20/04/2018 10:11 AM	AD23FS	1
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24/04/2018 8:09 AM	CN15WA	1
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15/05/2018 11:45 AM	BU49BN	1
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15/05/2018 1:13 PM	AM60MH	1
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20/06/2018 10:53 AM	BV47BS	1
20/06/2018 10:55 AM	CN10SD	1
20/06/2018 11:03 AM	BR88RD	1
20/06/2018 11:12 AM	CJ10UF	1
20/06/2018 11:13 AM	CQ17DS	1
20/06/2018 11:15 AM	CO45JK	1
20/06/2018 11:22 AM	CN71ER	1
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20/06/2018 11:46 AM	805XMH	1
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20/06/2018 12:24 PM	BL51EK	1
20/06/2018 12:25 PM	BP81YF	1
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26/06/2018 7:42 AM	SDX799	1
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24/07/2018 7:40 AM	BR16RT	1

24/07/2018 7:42 AM	609TRI	1
24/07/2018 7:44 AM	BV35BT	1
24/07/2018 7:46 AM	CP82TG	1
24/07/2018 7:47 AM	BR88RD	1
24/07/2018 7:48 AM	BN47EF	1
24/07/2018 8:23 AM	CP83TG	1
24/07/2018 8:31 AM	BY68YC	1
24/07/2018 8:35 AM	CP82TG	1
24/07/2018 8:38 AM	BM70UW	1
24/07/2018 8:39 AM	BN47EF	1
24/07/2018 8:57 AM	609TRI	1
24/07/2018 9:00 AM	BR16RT	1
24/07/2018 9:03 AM	BV35BT	1
24/07/2018 9:15 AM	300XUK	1
24/07/2018 9:37 AM	260XOF	1
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24/07/2018 9:55 AM	AB80LV	1
24/07/2018 9:56 AM	CP83TG	1
24/07/2018 10:06 AM	397XNK	1
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24/07/2018 10:52 AM	CP83TG	1
24/07/2018 11:01 AM	260XOF	1

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6/09/2018 11:23 AM	CP84TG	1
6/09/2018 11:29 AM	BN47EF	1
6/09/2018 11:39 AM	CP82TG	1
6/09/2018 11:50 AM	BR88RD	1
6/09/2018 12:54 PM	CP85HJ	1
6/09/2018 1:06 PM	BY68YC	1
6/09/2018 1:14 PM	CC90FS	1
6/09/2018 1:16 PM	BN47EF	1
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6/09/2018 2:17 PM	BR95RD	1

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7/09/2018 7:32 AM	AD23FS	1
7/09/2018 7:35 AM	BN47EF	1
7/09/2018 7:37 AM	XNOOAC	1
7/09/2018 7:42 AM	CP84TG	1
7/09/2018 7:50 AM	CP83TG	1
7/09/2018 7:54 AM	CL40HT	1
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7/09/2018 9:50 AM	BV47BS	1
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7/09/2018 10:14 AM	CL40HT	1
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7/09/2018 10:57 AM	CM17GJ	1
7/09/2018 10:58 AM	BV47BS	1
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7/09/2018 11:05 AM	CL40HT	1

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7/09/2018 11:50 AM	CL40HT	1
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17/09/2018 9:06 AM	CP82TG	1
17/09/2018 9:11 AM	CP85TG	1
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17/09/2018 10:21 AM	CG40RA	1
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21/09/2018 10:02 AM	BR95RD	1
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24/09/2018 7:35 AM	XN71CN	1

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24/10/2018 9:20 AM	YWW896	2
24/10/2018 9:45 AM	AD75FF	1
24/10/2018 9:56 AM	CP82TG	1
24/10/2018 9:58 AM	CP83TG	1
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26/10/2018 11:42 AM	BV47BS	1
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29/11/2018 12:00 PM	CP85HJ	1
29/11/2018 1:12 PM	BR88RD	1
29/11/2018 1:27 PM	BV47BS	1
29/11/2018 2:03 PM	CP85HJ	1
29/11/2018 2:17 PM	AB80LV	1
29/11/2018 2:35 PM	BR88RD	1
29/11/2018 2:38 PM	BV47BS	1
30/11/2018 7:41 AM	CO66SC	1
30/11/2018 7:43 AM	CG63FZ	1
30/11/2018 10:03 AM	CO66SC	1
30/11/2018 10:24 AM	AC71LL	1
30/11/2018 11:13 AM	AC71LL	1
30/11/2018 11:18 AM	CO66SC	1
30/11/2018 11:44 AM	AC71LL	1
30/11/2018 1:32 PM	CO66SC	1

3/12/2018 7:52 AM	BR83RD	1
3/12/2018 7:53 AM	BR88RD	1
3/12/2018 7:57 AM	BV47BS	1
3/12/2018 11:02 AM	BV47BS	1
3/12/2018 11:15 AM	BR88RD	1
3/12/2018 2:01 PM	BR88RD	1
4/12/2018 7:25 AM	XNOOAC	1
4/12/2018 7:27 AM	BV47BS	1
4/12/2018 7:29 AM	BR88RD	1
4/12/2018 7:33 AM	AL35SR	1
4/12/2018 8:01 AM	WUR345	1
4/12/2018 8:02 AM	AC71LL	1
4/12/2018 10:02 AM	BY68YC	1
4/12/2018 10:18 AM	BR88RD	1
4/12/2018 11:09 AM	AC71LL	1
4/12/2018 11:25 AM	BV47BS	1
4/12/2018 11:29 AM	BR88RD	1
4/12/2018 12:16 PM	AC71LL	1
4/12/2018 1:24 PM	BV47BS	1
4/12/2018 1:25 PM	BR88RD	1
4/12/2018 2:20 PM	CG20RC	1
4/12/2018 2:46 PM	BV47BS	1
4/12/2018 2:47 PM	BR88RD	1
5/12/2018 7:31 AM	CP82TG	1
5/12/2018 7:33 AM	BR26CI	1
5/12/2018 8:04 AM	BV47BS	1
5/12/2018 8:24 AM	AB80LV	1
5/12/2018 8:31 AM	BR88RD	1
5/12/2018 9:05 AM	AB80LV	1
5/12/2018 10:00 AM	CN70EQ	1
5/12/2018 10:52 AM	BR88RD	1
5/12/2018 11:11 AM	BR26CI	1
5/12/2018 12:43 PM	BR26CI	1

6/12/2018 7:18 AM	BR26CI	1
6/12/2018 7:31 AM	CP82TG	1
6/12/2018 9:09 AM	BR26CI	1
6/12/2018 9:20 AM	AB80LV	1
6/12/2018 9:21 AM	CP82TG	1
6/12/2018 9:22 AM	AD23FS	1
6/12/2018 9:27 AM	BR88RD	1
6/12/2018 9:40 AM	AC71LL	1
6/12/2018 10:49 AM	BR88RD	1
6/12/2018 11:18 AM	BN47EF	1
6/12/2018 11:31 AM	CP82TG	1
6/12/2018 12:23 PM	BR26CI	1
6/12/2018 12:32 PM	CP82TG	1
6/12/2018 12:58 PM	BV47BS	1
6/12/2018 1:00 PM	BR88RD	1
6/12/2018 1:19 PM	BN47EF	1
6/12/2018 2:49 PM	BR88RD	1
6/12/2018 3:13 PM	ZKY293	1
7/12/2018 7:21 AM	BR26CI	1
7/12/2018 8:52 AM	BV47BS	1
7/12/2018 9:21 AM	BR26CI	1
7/12/2018 10:07 AM	WUR345	1
7/12/2018 10:58 AM	BR26CI	1
10/12/2018 7:28 AM	CP82TG	1
10/12/2018 7:41 AM	CP83TG	1
10/12/2018 8:06 AM	BR88RD	1
10/12/2018 8:09 AM	CP84TG	1
10/12/2018 8:14 AM	BN47EF	1
10/12/2018 8:41 AM	CP85TG	1
10/12/2018 8:42 AM	AD75FF	1
10/12/2018 8:45 AM	BR88RD	1
10/12/2018 8:46 AM	CP84TG	1
10/12/2018 8:55 AM	BN47EF	1

10/12/2018 9:48 AM	CP85TG	1
10/12/2018 9:55 AM	BR88RD	1
10/12/2018 10:02 AM	AD75FF	1
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10/12/2018 10:25 AM	XN25EO	1
10/12/2018 10:26 AM	CP84TG	1
10/12/2018 10:29 AM	CP85TG	1
10/12/2018 10:31 AM	BR88RD	1
10/12/2018 10:37 AM	AD75FF	1
10/12/2018 10:41 AM	CP82TG	1
10/12/2018 10:43 AM	CP83TG	1
10/12/2018 10:47 AM	BN47EF	1
10/12/2018 11:11 AM	CP84TG	1
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10/12/2018 1:29 PM	CP85TG	1
10/12/2018 1:32 PM	BR88RD	1
10/12/2018 1:34 PM	CP83TG	1
10/12/2018 1:38 PM	AD75FF	1
10/12/2018 1:48 PM	CP82TG	1
10/12/2018 1:55 PM	BV47BS	1
10/12/2018 2:04 PM	XN25EO	1

10/12/2018 2:06 PM	CP84TG	1
10/12/2018 2:08 PM	BN47EF	1
10/12/2018 2:11 PM	CP85TG	1
10/12/2018 2:14 PM	BR88RD	1
10/12/2018 2:18 PM	CP83TG	1
10/12/2018 2:21 PM	AD75FF	1
10/12/2018 2:39 PM	XN25EO	1
10/12/2018 2:48 PM	CP84TG	1
10/12/2018 2:51 PM	BN47EF	1
10/12/2018 2:55 PM	CP85TG	1
10/12/2018 2:57 PM	BR88RD	1
10/12/2018 2:59 PM	CP83TG	1
10/12/2018 3:02 PM	BV47BS	1
10/12/2018 3:03 PM	AD75FF	1
10/12/2018 3:31 PM	CP84TG	1
10/12/2018 3:35 PM	CP85TG	1
10/12/2018 3:38 PM	CP83TG	1
11/12/2018 7:09 AM	BR88RD	1
11/12/2018 7:11 AM	XN25EO	1
11/12/2018 7:32 AM	ZKY293	1
11/12/2018 7:35 AM	CP85TG	1
11/12/2018 7:39 AM	AD75FF	1
11/12/2018 7:44 AM	CP82TG	1
11/12/2018 7:48 AM	BV47BS	1
11/12/2018 7:52 AM	CP83TG	1
11/12/2018 8:02 AM	CP84TG	1
11/12/2018 8:04 AM	ZKY293	1
11/12/2018 8:25 AM	CP85TG	1
11/12/2018 8:33 AM	CP82TG	1
11/12/2018 8:34 AM	BR88RD	1
11/12/2018 8:40 AM	CP83TG	1
11/12/2018 8:49 AM	CP84TG	1
11/12/2018 9:34 AM	BN47EF	1

11/12/2018 9:44 AM	CP82TG	1
11/12/2018 9:51 AM	CP85TG	1
11/12/2018 9:59 AM	CP83TG	1
11/12/2018 10:02 AM	BR83RD	1
11/12/2018 10:07 AM	AD75FF	1
11/12/2018 10:11 AM	CP84TG	1
11/12/2018 10:23 AM	BN47EF	1
11/12/2018 10:31 AM	CP82TG	1
11/12/2018 10:34 AM	BR88RD	1
11/12/2018 10:41 AM	CP85TG	1
11/12/2018 10:48 AM	CP83TG	1
11/12/2018 10:51 AM	BR83RD	1
11/12/2018 11:00 AM	CP84TG	1
11/12/2018 11:14 AM	BN47EF	1
11/12/2018 11:19 AM	CP82TG	1
11/12/2018 11:21 AM	BR88RD	1
11/12/2018 11:24 AM	AD75FF	1
11/12/2018 11:32 AM	CP83TG	1
11/12/2018 11:35 AM	BR83RD	1
11/12/2018 11:49 AM	XN25EO	2
11/12/2018 12:40 PM	CP82TG	1
11/12/2018 1:01 PM	BR88RD	1
11/12/2018 1:04 PM	BV47BS	1
11/12/2018 1:08 PM	CP83TG	1
11/12/2018 1:12 PM	AD75FF	2
11/12/2018 1:15 PM	XN25EO	1
11/12/2018 1:19 PM	BN47EF	1
11/12/2018 1:23 PM	CP84TG	1
11/12/2018 1:32 PM	CP82TG	1
11/12/2018 1:36 PM	BR88RD	1
11/12/2018 1:51 PM	CP83TG	1
11/12/2018 1:56 PM	BR83RD	1
11/12/2018 1:59 PM	AD75FF	1

11/12/2018 2:04 PM	BN47EF	1
11/12/2018 2:09 PM	CP84TG	1
11/12/2018 2:18 PM	CP82TG	1
11/12/2018 2:19 PM	BR88RD	1
11/12/2018 2:36 PM	CP83TG	1
11/12/2018 2:38 PM	AD75FF	1
11/12/2018 2:44 PM	BR83RD	1
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11/12/2018 3:11 PM	CP82TG	1
11/12/2018 3:13 PM	BR88RD	1
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12/12/2018 7:20 AM	AD75FF	1
12/12/2018 7:22 AM	CP83TG	1
12/12/2018 7:30 AM	CP82TG	1
12/12/2018 7:33 AM	BN47EF	1
12/12/2018 7:49 AM	CN70EQ	1
12/12/2018 7:51 AM	CK66NE	1
12/12/2018 7:58 AM	AD75FF	1
12/12/2018 8:00 AM	173TSM	1
12/12/2018 8:03 AM	BV47BS	1
12/12/2018 8:06 AM	CP83TG	1
12/12/2018 8:07 AM	CG63FZ	1
12/12/2018 8:09 AM	BR83RD	1
12/12/2018 8:11 AM	XN25EO	1
12/12/2018 8:14 AM	BR83RD	1
12/12/2018 8:16 AM	CP82TG	1
12/12/2018 8:18 AM	GQ0002	1
12/12/2018 8:35 AM	CN70EQ	1
12/12/2018 8:43 AM	CK66NE	1
12/12/2018 8:48 AM	CP83TG	1

12/12/2018 8:55 AM	BV47BS	1
12/12/2018 9:15 AM	CP60LI	1
12/12/2018 9:23 AM	CP82TG	1
12/12/2018 9:41 AM	CN70EQ	1
12/12/2018 9:49 AM	CK66NE	1
12/12/2018 9:57 AM	BN47EF	1
12/12/2018 10:02 AM	AD75FF	1
12/12/2018 10:05 AM	GQ0002	1
12/12/2018 10:08 AM	CP83TG	1
12/12/2018 10:13 AM	CP82TG	1
12/12/2018 10:22 AM	BV47BS	1
12/12/2018 10:26 AM	CN70EQ	1
12/12/2018 10:38 AM	CK66NE	1
12/12/2018 10:46 AM	173TSM	1
12/12/2018 10:47 AM	CP60LI	1
12/12/2018 10:55 AM	CP83TG	1
12/12/2018 11:03 AM	CP82TG	1
12/12/2018 11:08 AM	CN70EQ	1
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12/12/2018 2:07 PM	CN70EQ	1

12/12/2018 2:25 PM	CP82TG	1
12/12/2018 2:40 PM	CK66NE	1
12/12/2018 2:46 PM	CP83TG	1
12/12/2018 2:55 PM	AD75FF	1
12/12/2018 2:56 PM	CN70EQ	1
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12/12/2018 3:36 PM	CP83TG	1
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13/12/2018 7:19 AM	BR88RD	1
13/12/2018 7:22 AM	AD75FF	1
13/12/2018 7:25 AM	BN47EF	1
13/12/2018 7:33 AM	BV47BS	1
13/12/2018 7:54 AM	CN70EQ	1
13/12/2018 7:55 AM	173TSM	1
13/12/2018 7:57 AM	GQ0002	1
13/12/2018 8:06 AM	CP82TG	1
13/12/2018 8:13 AM	AB80LV	1
13/12/2018 8:29 AM	WUR345	1
13/12/2018 8:39 AM	CN70EQ	1
13/12/2018 8:55 AM	CP82TG	1
13/12/2018 9:28 AM	GQ0002	1
13/12/2018 9:40 AM	BV47BS	1
13/12/2018 9:57 AM	CP83TG	1
13/12/2018 9:59 AM	AD75FF	1
13/12/2018 10:07 AM	CN70EQ	1
13/12/2018 10:29 AM	CP82TG	1
13/12/2018 10:42 AM	CP83TG	1
13/12/2018 10:48 AM	CN70EQ	1
13/12/2018 10:56 AM	173TSM	1

13/12/2018 11:12 AM	GQ0002	1
13/12/2018 11:26 AM	CP83TG	1
13/12/2018 11:30 AM	BV47BS	1
13/12/2018 11:34 AM	CP82TG	1
13/12/2018 11:39 AM	CN70EQ	1
13/12/2018 11:47 AM	CP84TG	1
13/12/2018 11:53 AM	AD75FF	1
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13/12/2018 1:13 PM	BV47BS	1
13/12/2018 1:19 PM	CN70EQ	1
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13/12/2018 1:54 PM	CP83TG	1
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13/12/2018 2:09 PM	CP84TG	1
13/12/2018 2:17 PM	173TSM	1
13/12/2018 2:28 PM	CP82TG	1
13/12/2018 2:40 PM	CP83TG	1
13/12/2018 2:42 PM	BV47BS	1
13/12/2018 2:48 PM	CN70EQ	1
13/12/2018 2:53 PM	CP84TG	1
13/12/2018 3:10 PM	GQ0002	1
13/12/2018 3:31 PM	CN70EQ	1
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14/12/2018 7:34 AM	CP82TG	1
14/12/2018 7:35 AM	AD75FF	1
14/12/2018 7:39 AM	CP84TG	1
14/12/2018 7:55 AM	GQ0002	1
14/12/2018 8:16 AM	590XSW	1
14/12/2018 8:25 AM	CP84TG	1
14/12/2018 9:15 AM	GQ0002	1

14/12/2018 10:13 AM	CP82TG	1
14/12/2018 10:38 AM	GQ0002	1
14/12/2018 11:12 AM	AD75FF	1
14/12/2018 11:24 AM	590XSW	1
14/12/2018 11:36 AM	GQ0002	1
14/12/2018 12:51 PM	CP82TG	1
14/12/2018 2:30 PM	590XSW	1
17/12/2018 7:42 AM	AD75FF	1
17/12/2018 7:48 AM	173TSM	1
17/12/2018 8:25 AM	CP60LI	1
17/12/2018 8:26 AM	XN25EO	1
17/12/2018 8:29 AM	CN10SD	1
17/12/2018 8:34 AM	CP85HJ	1
17/12/2018 9:48 AM	CP82TG	1
17/12/2018 10:38 AM	CP85HJ	1
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17/12/2018 11:08 AM	AD75FF	1
17/12/2018 11:28 AM	CP82TG	1
17/12/2018 12:00 PM	CP85HJ	1
17/12/2018 12:48 PM	XNOOAC	1
17/12/2018 12:50 PM	XNOOAC	1
17/12/2018 1:23 PM	AD75FF	1
17/12/2018 1:48 PM	173TSM	1
17/12/2018 2:19 PM	AA18UQ	1
17/12/2018 2:21 PM	XN25EO	1
17/12/2018 2:58 PM	XN25EO	1
18/12/2018 7:18 AM	XN25EO	1
18/12/2018 7:55 AM	173TSM	1
18/12/2018 8:06 AM	XN25EO	1
18/12/2018 10:54 AM	173TSM	1
18/12/2018 1:57 PM	XN25EO	1
18/12/2018 2:19 PM	173TSM	1
18/12/2018 2:49 PM	XN25EO	1

19/12/2018 7:44 AM	AC71LL	1
19/12/2018 7:48 AM	CP84TG	1
19/12/2018 8:12 AM	173TSM	1
19/12/2018 8:35 AM	AC71LL	1
19/12/2018 9:42 AM	XNOOAC	1
19/12/2018 9:43 AM	XNOOAC	1
19/12/2018 11:04 AM	BR16RT	1
19/12/2018 11:08 AM	173TSM	1
19/12/2018 12:09 PM	AD23FS	1
20/12/2018 7:30 AM	BV47BS	1
20/12/2018 8:45 AM	173TSM	1
20/12/2018 11:28 AM	173TSM	1
20/12/2018 1:25 PM	AC71LL	1
21/12/2018 10:44 AM	CP85TG	1

Ambience Audio Services
Acoustic Measurement and Analysis

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Results of Noise Monitoring

Blakebrook Quarry
186A Keerrong Road
Blakebrook NSW 2480

Prepared for

Northern Rivers Quarry & Asphalt
186A Keerrong Road
Blakebrook NSW 2480

Prepared by
[redacted]
November 12th 2018

Table of Contents

1 INTRODUCTION

Ambience Audio Services conducted noise monitoring of quarry operations for Northern Rivers Quarry & Asphalt at Blakebrook via Lismore, northern NSW. The noise monitoring was requested by the Quarry Operations Co-ordinator, [redacted] to measure and report on quarry operational noise levels at the identified affected residential receiver locations.

Noise monitoring was conducted on the 6th of November 2018 with full quarry operating conditions and suitable weather conditions.

Quarry operations while noise monitoring was conducted included crushing and stockpiling on the eastern side of the quarry floor, asphalt production at the mobile plant at the top of the quarry and trucks and loaders on the internal haul roads. A diagram of equipment operating on the quarry floor during noise monitoring at residential receivers is provided in Appendix D.

To assist with the interpretation of some of the terminology used in this report, Appendix A provides definitions of acoustic terms. Appendix B is a chart of everyday sound pressure levels.

2 NOISE MONITORING REQUIREMENTS

The noise monitoring requirements for the Blakebrook Quarry are outlined in Section 6.2 of the Noise, Vibration and Blasting Sub Plan 08/04/11 prepared by Environmental Resources Management Australia (ERM).

Extracts of the relevant parts are copied below.

6.2.2 *Noise and Vibration and Blasting Monitoring Locations*

Noise, vibration and blasting monitoring will be undertaken at the nearest residential receptors marked as locations 1 to 6 on *Figure 6.1*.

6.2.4 *Noise, Vibration and Blasting Monitoring Methodology*

Operator - attended noise measurements shall be conducted at Locations 1 to 4, Location 6 and Location 9 (refer *Figure 6.1*) to quantify and characterise the maximum (LAmax), the energy equivalent (LAeq), and background (LA90) noise levels from ambient noise sources and quarrying operations over a 15 minute measurement period.

The operator shall quantify noise emissions and estimate the LAeq(Period) noise contribution during day time activities from each of the quarrying operations, as well as the overall level of ambient noise.

During attended monitoring, digital recordings will be conducted to allow for additional post analysis of the quarry noise levels and source identification.

All acoustic instrumentation employed throughout the monitoring program shall meet with the requirements of AS 1259.2-1990, "Sound Level Meters".

Instrument calibration shall be checked before and after each measurement survey, with the variation in calibrated levels not exceeding ±0.5 dBA.

To measure blasts a blast monitor will be employed that records air blast and vibration levels once triggered by an electronic trigger connected to shot firing switch. That is, when the shot is fired, the monitor will be triggered by means of a hardwire switch and will start recording and capture the blast event. This will ensure that the event captured is the blast, significantly reducing the influence of other extraneous sources that could affect the measurement.

6.2.5 *Meteorological Parameters*

All noise measurements shall be accompanied by both qualitative description (including cloud cover, approximate wind direction and speed) and quantitative measurements of prevailing local weather conditions throughout the survey period.

6.2.7 *Assessment Criteria*

The purpose of the noise, vibration and blasting monitoring program is to track potential impacts of operations over time as quarrying continues, to demonstrate that quarrying is not impacting on residential receptors.

Currently the EPL No 3384 for Blakebrook Quarry has in place existing conditions for noise, blasting and vibration levels which are as follows:

L6.1 Noise from the premises must not exceed:

(a) 35dB(A) LAeq(15 minute) during the day (7am to 6pm) Monday to Saturday;

Where LAeq means the equivalent continuous noise level – the level of noise equivalent to the energy-average of noise levels occurring over a measurement period.

The closest noise sensitive receivers and required noise monitoring locations are indicated in figure 6.1 from the ERM Noise, Vibration and Blasting Sub Plan, which is copied on the following page.

Noise monitoring at locations 1, 2, 3 and 4 were conducted within 30m of the residential dwelling in the direction of the quarry. Location 6 was conducted at the road frontage, approximately 35m from the residential dwelling, as no one was home to give permission to enter the property.

In April 2016, the owner and permanent resident at Location 9 provided the NSW Department of Planning and Environment a signed letter confirming a private agreement between Blakebrook Quarry and Sensitive Receiver No.9, that they agree to exceedances in noise levels from quarry operations. No noise monitoring was conducted at Location 9.

Table 2.1 Noise Monitoring Receiver Locations

Receiver Location	Street Address
1	[redacted]
2	[redacted]
3	[redacted]
4	[redacted]
6	[redacted]

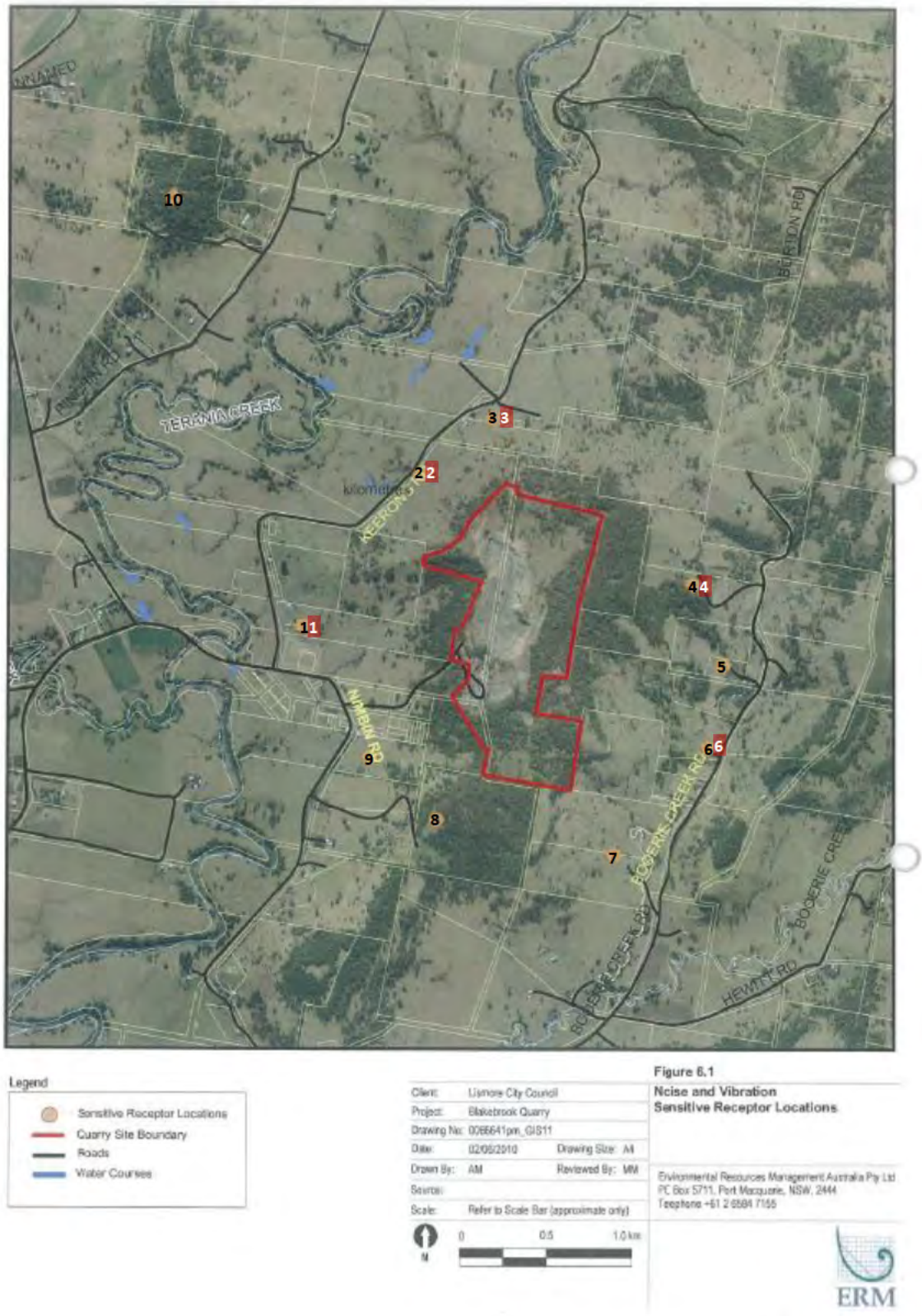
Note:

Some street addresses on Keerrong Road have been changed from the previous assessments due to updated surveying.

Receiver 1 was 122 now 28

Receiver 2 was 126 now 166

Figure 2.1 Noise Monitoring Locations



3 MEASUREMENT PROCEDURE AND RESULTS

3.1 Instrumentation

Table 3.1 Instrumentation for Noise Monitoring

Instrument	Serial #	Calibration Date
Brüel and Kjær 2250 Sound Level Meter	2449940	October 2018
Brüel and Kjær 2250 Sound Level Meter	3006868	September 2017
Brüel and Kjær Acoustical Calibrator model 4231	2292735	October 2018

The sound level meters (SLM) used during the noise survey conform to Australian Standard 1259 "Acoustics - Sound Level Meters", (1990) as type 1 precision sound level meters and have an accuracy suitable for both field and laboratory use.
The meters' calibrations were checked before and after the measurement periods with a Brüel and Kjær acoustical calibrator model 4231. No significant system drift occurred over the measurement periods.

The SLMs and calibrator have been checked, adjusted and aligned to conform to the Brüel and Kjær factory specifications and issued with conformance certificates. The internal test equipment used is traceable to the National Measurement Laboratory at CSIRO, Lindfield, NSW.

3.2 Measurement Procedures

Measurements were made in general accordance with procedures laid down in:

1. **Australian Standard AS 1055.1-1997: '**Acoustics - Description and measurement of environmental noise - General procedures';

2. **The NSW Government Industrial Noise Policy (2000) EPA 00/1 (INP).**

The microphone of a B&K 2250 SLM was mounted on a 1.5m high tripod and a Bruel and Kjær outdoor windscreen fitted to the microphone. The SLM was located on a flat area of land above the cliff face where the working equipment was used, to monitor noise levels while measurements were being conducted at the receiver locations (*see Appendix D*). The SLM was set to record continuously for the duration of receiver monitoring with 1 second samples. A sound recording was conducted simultaneously.

The microphone of another B&K 2250 SLM was mounted on a 1.5m high tripod and a Bruel and Kjær outdoor windscreen fitted to the microphone. The SLM was used at the various receiver locations to monitor noise levels while the quarry was operating under full load conditions. The noise monitoring location was within 30m of the residential dwelling in the general direction of the quarry depending on vegetation and cattle in paddocks for receivers 1-4. Noise monitoring at receiver 6 was conducted on the road frontage boundary approximately 35 from the residential dwelling as no one was home to give permission to enter the property.

A 15 minute period was recorded at each location with 1 second samples with a simultaneous sound recording.

3.3 Weather Conditions

Weather conditions were generally good for acoustic measurements. Observations were taken at each receiver location.

Table 3.2 Observed Weather Conditions at Receiver Locations

Receivers Weather Summary 6th Nov 2018							
Time	Receiver	Temp	Relative Humidity	Wind	Wind Dir	Cloud Cover	
		℃	%	Speed (m/s)			
9:02am	4	26	88	Calm		5/8	Scattered high cloud
9:40am	6	28	82	Calm		7/8	High cloud
10:16am	1	31	64	Calm		7/8	High cloud
10:46am	2	33	64	Calm		7/8	High cloud
11:13am	3	34	61	Calm		8/8	High cloud

The meteorological data for Lismore Airport (approximately 7kms to the south) for the monitoring period was downloaded from the Bureau of Meteorology website and is provided in Table 3.3.

Table 3.3 Weather Observations at Lismore Airport 06/11/2018

Lismore Airport Weather 6th Nov 2018					
	Temp °C	Relative Humidity %	Wind		
			Dir.	Speed	
Time				(km/h)	(m/s)
12:00pm	32.8	60	NNE	9	2.5
11:30am	31.1	62	NW	4	1.1
11:00am	29.7	64	NNE	9	2.5
10:30am	29.1	62	N	7	1.9
10:00am	27.9	66	NNE	9	2.5
09:30am	26.9	72	NNE	11	3.1
09:00am	24.5	81	N	13	3.6
08:30am	23.5	88	NNE	7	1.9

3.3 Measurement Results

Table 3.4 Measurement Results

Measurement Summary 6th Nov 2018								
	Start time	Elapsed time	LAFmax [dB]	LCeq [dB]	LAeq [dB]	LCeq-LAeq [dB]	LAF10 [dB]	LAF90 [dB]
R1	10:16:01 AM	0:15:00	69.7	51.1	46.4	4.7	49.0	34.4
R2	10:46:18 AM	0:15:00	59.9	46.0	39.6	6.3	42.6	26.3
R3	11:13:05 AM	0:15:00	52.2	44.4	33.1	11.3	35.3	27.1
R4	09:02:55 AM	0:15:00	53.6	44.4	37.5	6.9	40.7	32.4
R6	09:40:29 AM	0:15:00	72.5	51.4	46.4	5.0	45.6	32.5
Top of Quarry	08:23:08 AM	3:31:55	90.6	85.0	82.0	2.9	83.0	81.1

Note:
The above results are the ambient noise levels and includes noise from the rural surroundings and quarry noise if audible.

Table 3.5 Noise Observations at Receiver Locations

Noise Observations at Receiver Locations 6/11/2018 (All measurements 15 mins)			
Receiver	**Start time**	**Observed Noise Sources**	**Quarry Noise**
4	9:02am	Birds, bees in distant tree, distant overhead aircraft	Quarry not audible
6	9:40am	Birds, insects, cattle, horses, small plane, vehicle on Booerie Crk Rd	Quarry not audible
1	10:16am	Birds, local traffic on Keerrong Rd, distant cattle, distant traffic on Nimbin Rd, distant overhead aircraft, occasional children playing	Quarry not audible
2	10:46am	Birds, cattle, insects, local traffic on Keerrong Rd	Quarry not audible
3	11:13am	Birds, cattle, insects, local traffic on Keerrong Rd, distant overhead aircraft, distant people talking	Quarry not audible

4 DISCUSSION OF RESULTS

The measurements were undertaken while the quarry was operating under normal operating conditions (*see Appendix D for diagram for location of equipment*). A second noise logger was located above the quarry floor as a reference for quarry crushing operations noise levels.

Graph C.6 is the measured noise levels above the crushing operations. The noise logger was located approximately 65m to the closest machine and approximately 100m to the farthest. The levels are very consistent throughout the receiver monitoring period 9am – 11:30am.

At Receiver 1, the quarry was not audible. The $L_{A90,15min}$ was 34.4 dB(A) and mainly attributed to distant traffic. It is estimated that the quarry $L_{Aeq,15\ min}$ is below 33dB(A).

At Receiver 2, the quarry noise was not audible. The $L_{A90,15min}$ is quite low (26.3 dB(A). It is estimated that the quarry $L_{Aeq,15\ min}$ is below 30dB(A).

At Receiver 3, the quarry noise was not audible. The $L_{A90,15min}$ is quite low (27.1 dB(A). It is estimated that the quarry $L_{Aeq,15\ min}$ is below 30dB(A).

At Receiver 4, the quarry noise was not audible. The $L_{A90,15min}$ was 32.4 dB(A). It is estimated that the quarry $L_{Aeq,15\ min}$ is below 33dB(A).

At Receiver 6, the quarry noise was not audible. The $L_{A90,15min}$ was 32.5 dB(A). It is estimated that the quarry $L_{Aeq,15\ min}$ is below 33dB(A).

5 SUMMARY

A noise monitoring survey was conducted to assess compliance of quarry operational noise levels at the Northern Rivers Quarry and Asphalt quarry at Blakebrook. Measurements were undertaken with calibrated noise monitoring equipment and conducted in general accordance with procedures laid down in Australian Standard AS 1055.1-1997 and the NSW Industrial Noise Policy.

The Blakebrook Quarry operates under EPL No. 3384. Condition L6.1 stipulates that noise from the premises must not exceed 35dB(A) $L_{Aeq,15min}$ during the day (7am to 6pm) Monday to Saturday.

Measurements were conducted at 5 receiver locations while the quarry was operating under load conditions. The quarry was not audible at the receiver locations.

The quarry operational noise levels ($L_{Aeq,15min}$) were not able to be accurately assessed at residential receiver monitoring locations as the quarry noise was not audible.

It is estimated from the recorded $L_{A90,15\ min}$ levels and observations, that the quarry noise levels are below the Project Specific Noise Level of 35 dB(A) $L_{eq,15mins}$ at Receiver locations 1, 2, 3, 4 and 6.

[redacted]

[redacted]

Acoustic Consultant

Ambience Audio Services

APPENDIX A
Definitions of Terms

Sound pressure level (SPL): A measurable quantity of the size or amplitude of the pressure fluctuations (sound waves) above and below normal atmospheric pressure. Sound pressure levels are measured in decibels.

Decibels (dB): a ratio of energy flows. When used with sound measurement, it is the ratio between a measured quantity and an agreed reference level. The dB scale is logarithmic and uses the threshold of hearing of 20 μPa (micro pascals) as the reference level. This reference level is defined as 0 dB.

One useful aspect of the decibel scale is that it gives a much better approximation to the human perception of relative loudness than the Pascal scale. This is because the ear reacts to a logarithmic change in level, which corresponds to the decibel scale where 1 dB is the same relative change every on the scale. *Refer Appendix B*

Tonality: Noise containing a prominent frequency and characterized by a definite pitch.

Spectral characteristics: The frequency content of noise.

"A" frequency weighting: The method of frequency weighting the electrical signal within a noise-measuring instrument to simulate the way the human ear responds to a range of acoustic frequencies. The symbols for the noise parameters often include the letter "A" (e.g., L_{Aeq}, dBA) to indicate that frequency weighting has been included in the measurement.

Fast, Slow and Impulse time weightings: Standardised response times to help define fluctuating noise levels. Impulsive noises have high peak levels with a very short duration (e.g., gun shot), or a sequence of such peaks. Slow helps average out the fluctuations and is used to for better visual indication of the noise source. Environmental assessment standards usually specify the time weighting (**F**, **S**, or **I**) to use.

L_{Aeq}: The A-weighted continuous noise level. A widely used noise parameter that calculates a constant level of noise with the same energy content as the varying noise signal being measured. The time in minutes, which the measurement was sampled, is indicated with a following number. e.g. L_{Aeq15} is a 15 minute sample.

L_{AN}: The A-weighted sound pressure level that is exceeded for N per cent of the time over which a given sound is measured. e.g. **L_{A90}** is the A-weighted sound pressure level that is exceeded for 90% of the time over which a given sound is measured. **L_{A90}** is commonly used to describe the **background noise level** for community noise assessments.
Ambient noise: The all-encompassing noise associated within a given environment. It is the composite of sounds from many sources, both near and far.

Extraneous noise: Noise resulting from activities that are not typical of the area. Atypical activities may include construction, and traffic generated by holiday periods and by events such as concerts or sporting events. Normal daily traffic is not to be considered extraneous.

Background noise: The underlying level of noise present in the ambient noise, excluding the noise source under investigation, when extraneous noise is removed. This is described using the **L_{A90}** descriptor.

Intrusive Noise: Refers to noise that intrudes above the background level by more than 5 decibels.

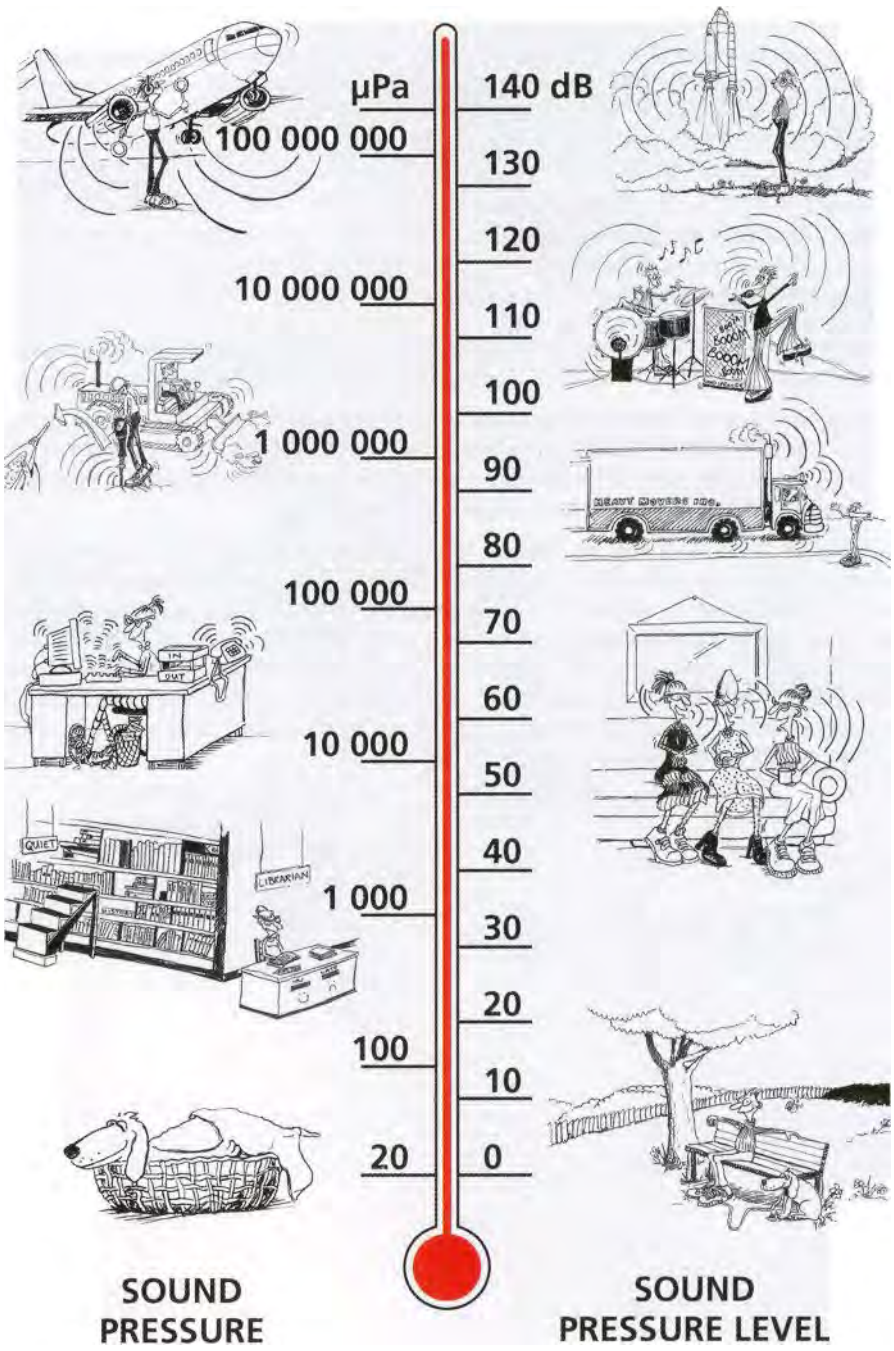
References:

Measuring Sound Brüel and Kjær Sound & Vibration Measurements A/S September 1984

Environmental Noise Brüel and Kjær Sound & Vibration Measurements A/S 2000, 2001

New South Wales Industrial Noise Policy NSW Environment Protection Authority January 2000

APPENDIX B
Comparison of Sound Pressure Levels



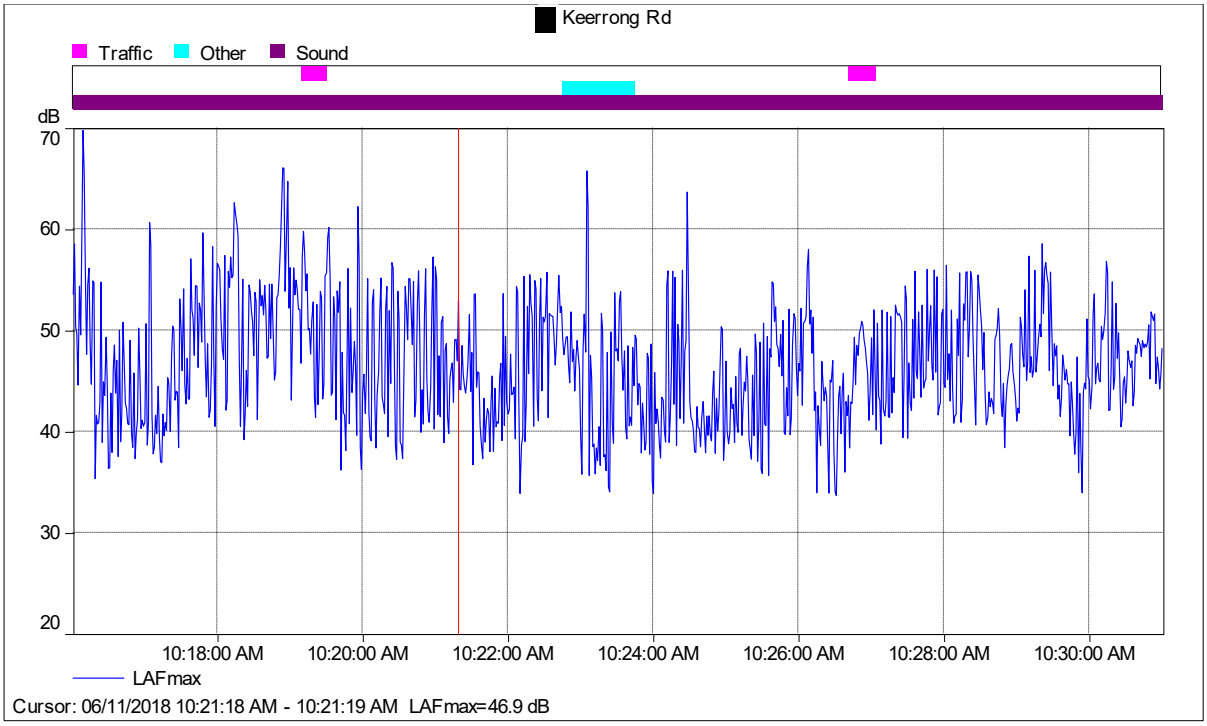
Our hearing covers a wide range of sound pressures – a ratio of over a million to one. The dB scale makes the numbers manageable.

Reproduced from

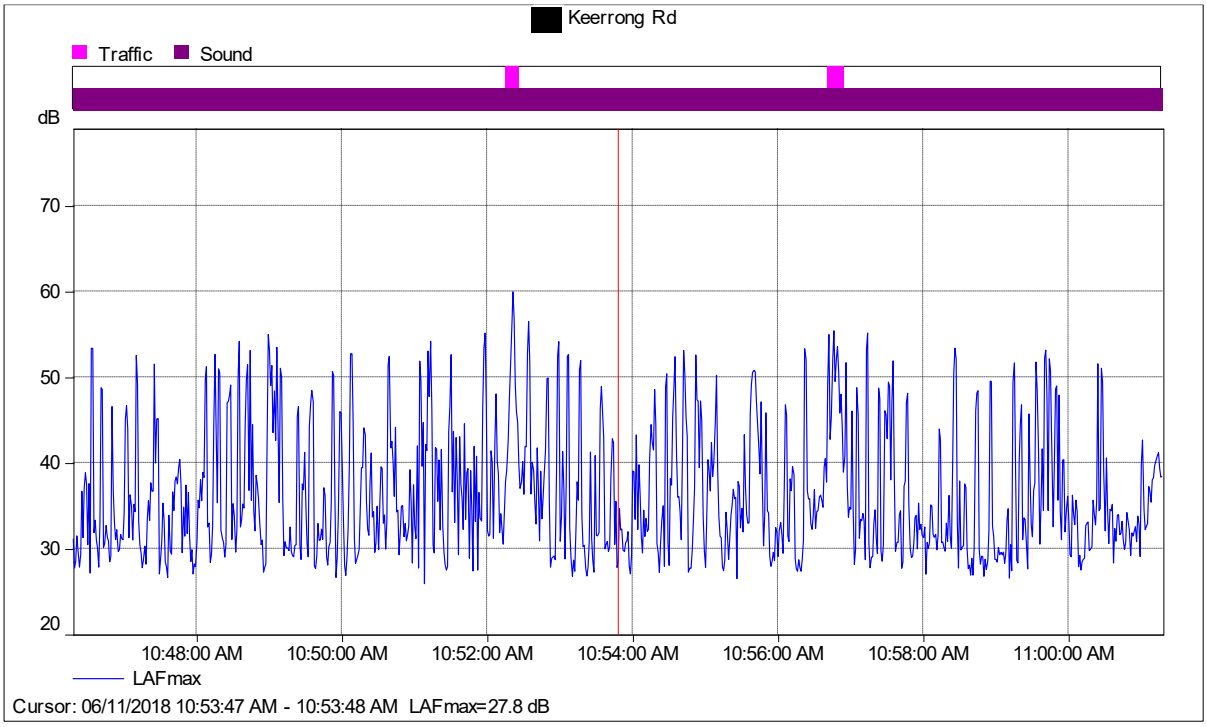
Environmental Noise Brüel and Kjær Sound & Vibration Measurements A/S 2000, 2001

APPENDIX C
Logged Levels at Receiver Locations – Graphs

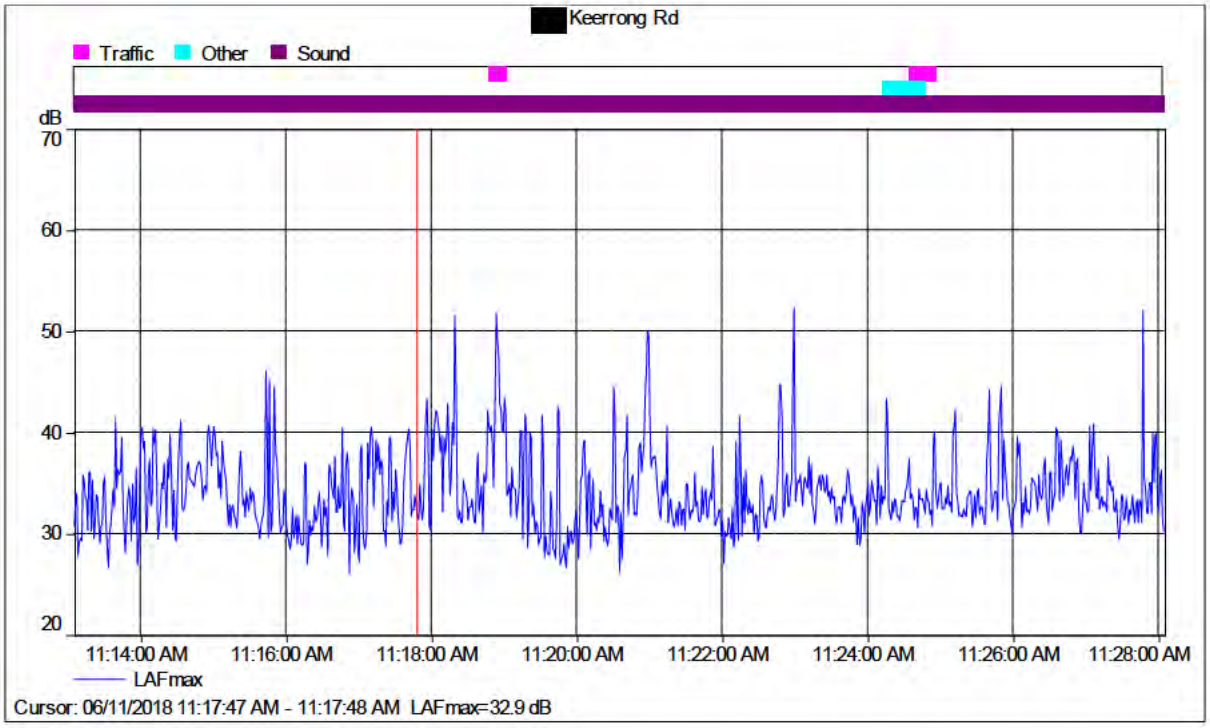
Graph C.1 Receiver 1



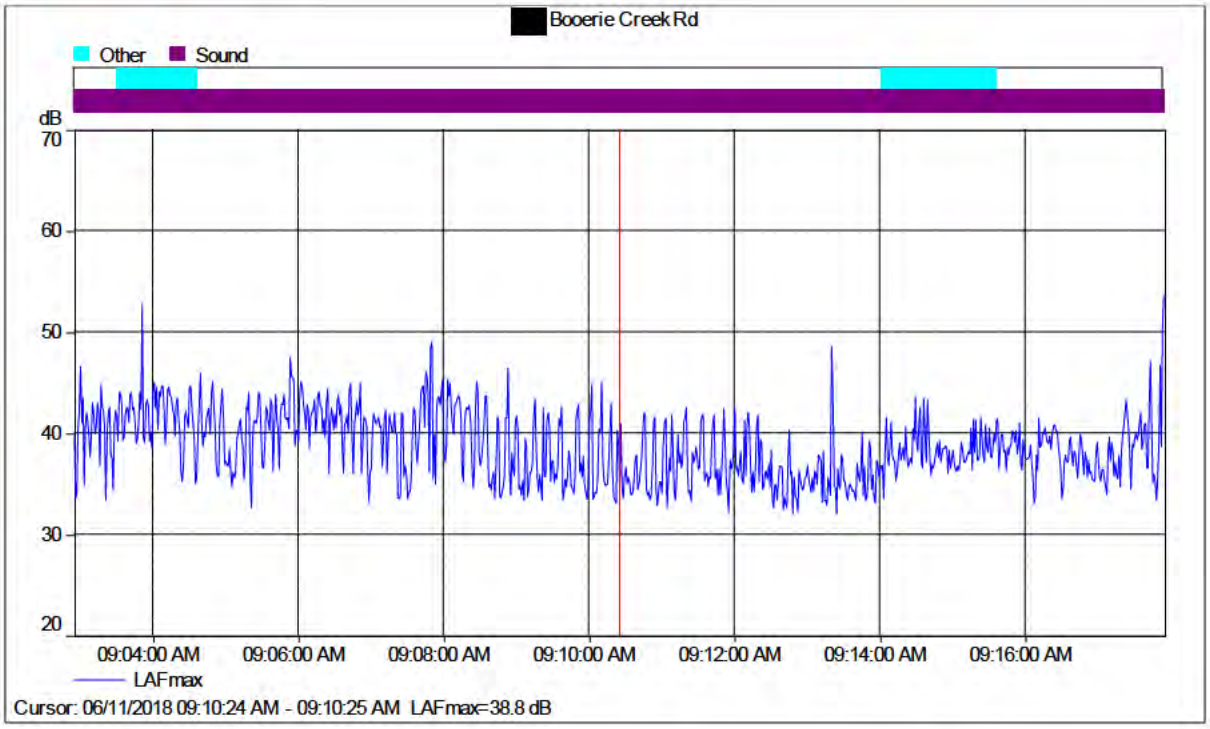
Graph C.2 Receiver 2



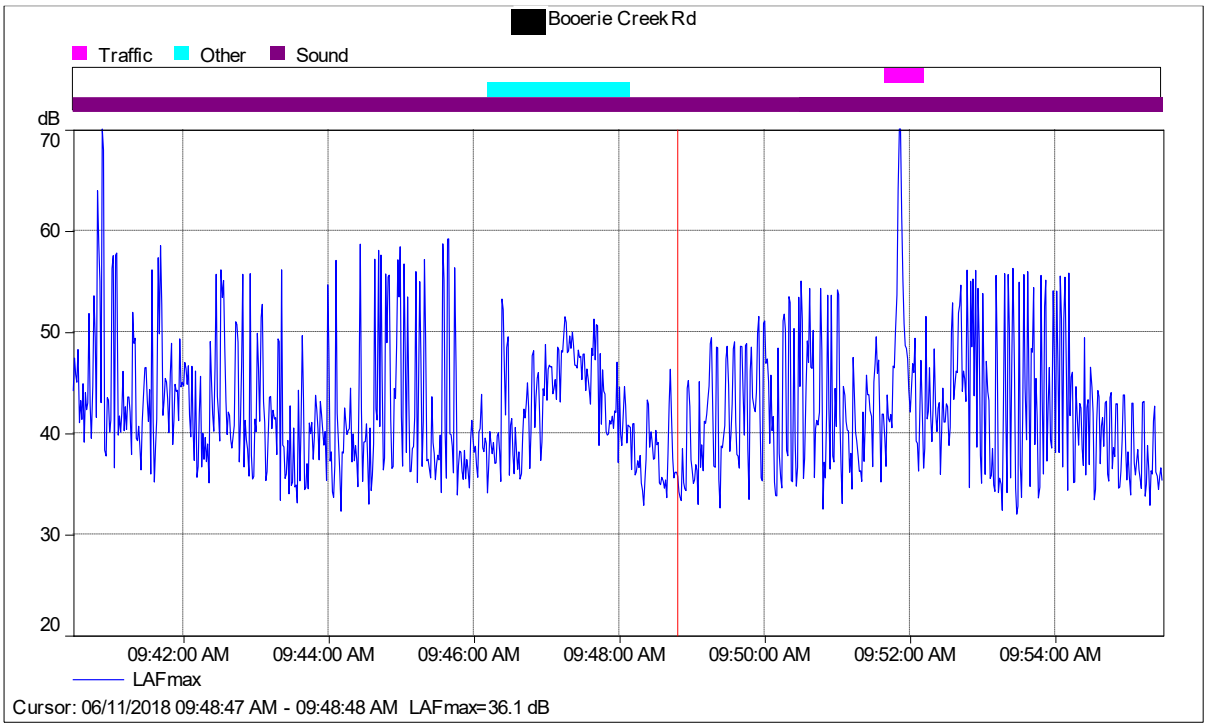
Graph C.3 Receiver 3



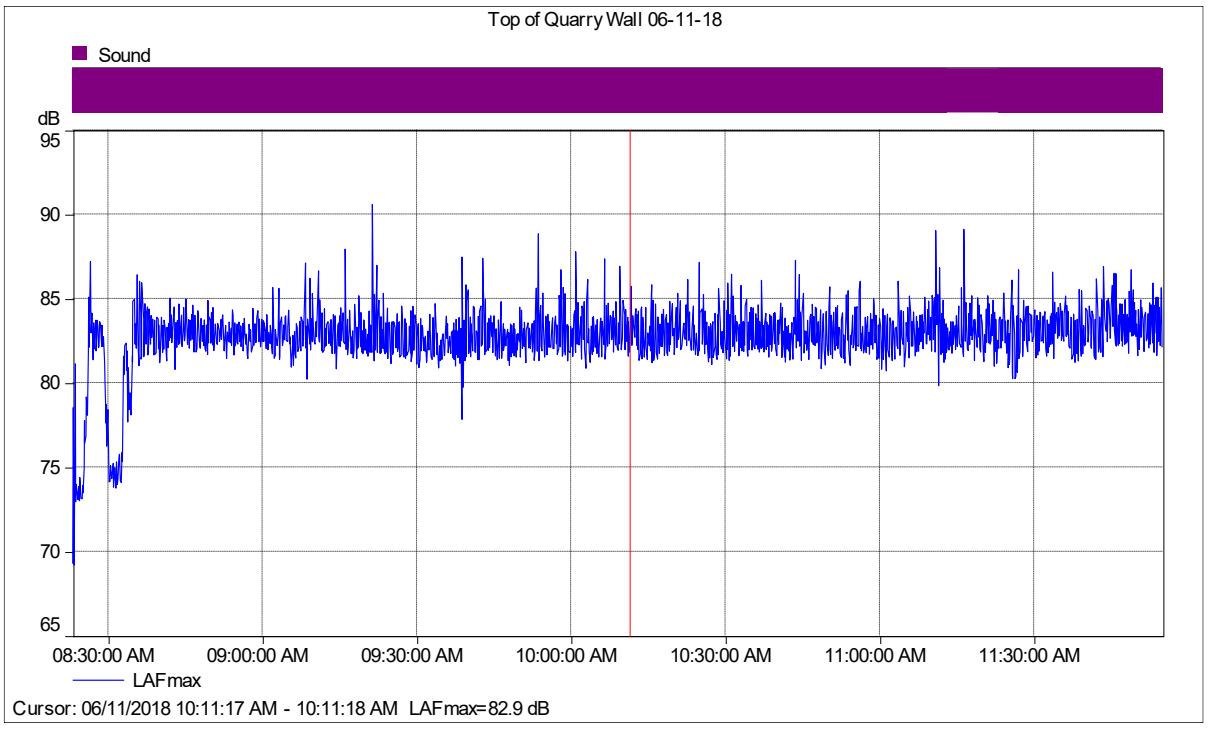
Graph C.4 Receiver 4



Graph C.5 Receiver 6



Graph C.6 Measured Noise Levels at Top of Quarry Above Crushing



Appendix D
Quarry Operations 6th November 2018

Source – Google Earth – Image Date 24/10/2017

Note : Aerial photo not of operations on 6th of November 2018

Crushing Operations 6th November 2018

1 jaw crusher

2 screen decks

1 cone crusher

1 VSI crusher

1 excavator

1 tracked stockpiler

1 scalper reclaimer

2 front end loaders

1 water truck

various haul trucks

various service vehicles

BlakeBrook

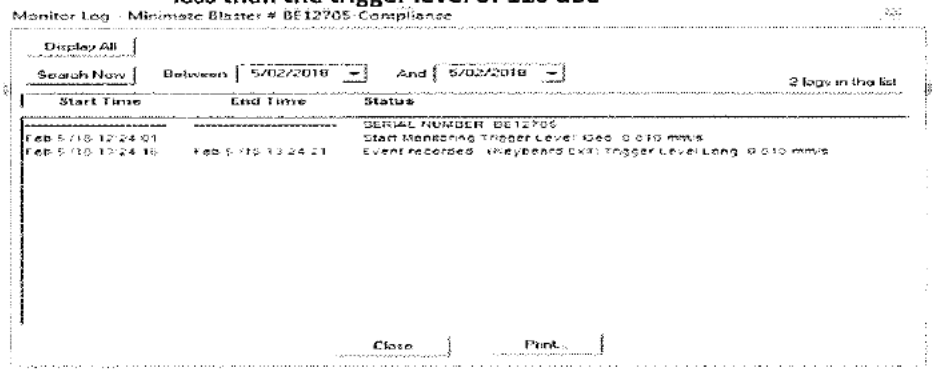
Blast Number: BLA 32
Location: Main Pit
Time: 13:05:00 PM
Date: 5/02/2018
Monitor Location: [redacted]Nimbin Rd
Weather: Fine

NO TRIGGER REPORT

monitoring conducted by: [redacted]

Geophone Trigger Level: **0.51 mm/s**
Microphone Trigger level: **110 DBL**

NOTES:.... This monitor was approximately from 800m from the Blast. Donnelly blasting services advises that the Blast Viration Was lower than the trigger level of 0.51mm/s and that the blast over pressure was less less than the trigger level of 110 dBL



Instantel Minimate Blaster Serial Number BE12705
next Calibration due April 10 2018

* Monitor log Shows No Event trigger at time of blast

Instantel

Event Report

Date/Time	Long at 13:05:47 February 5, 2018
Trigger Source	Geo: 0.810 mm/s
Range	Geo: 254 mm/s
Record Time	6.0 sec at 1024 sps
Notes	

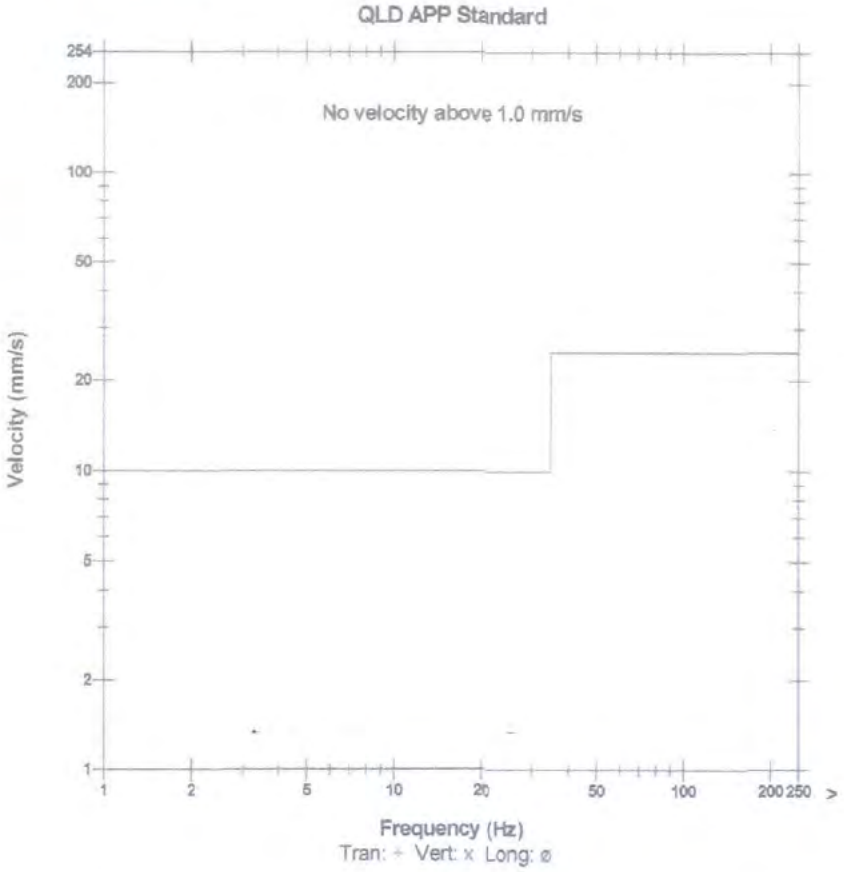
Serial Number	BE13456 V 10.72-1.1 Minimate Blaster
Battery Level	6.3 Volts
Unit Calibration	June 1, 2017 by Saros Int.
File Name	__TEMP.EVT
Post Event Notes	
Customer Site	Blakebrook
Blast ID	BLA 32
Monitor Location	[redacted] Nimbin Rd
Monitored By	[redacted]

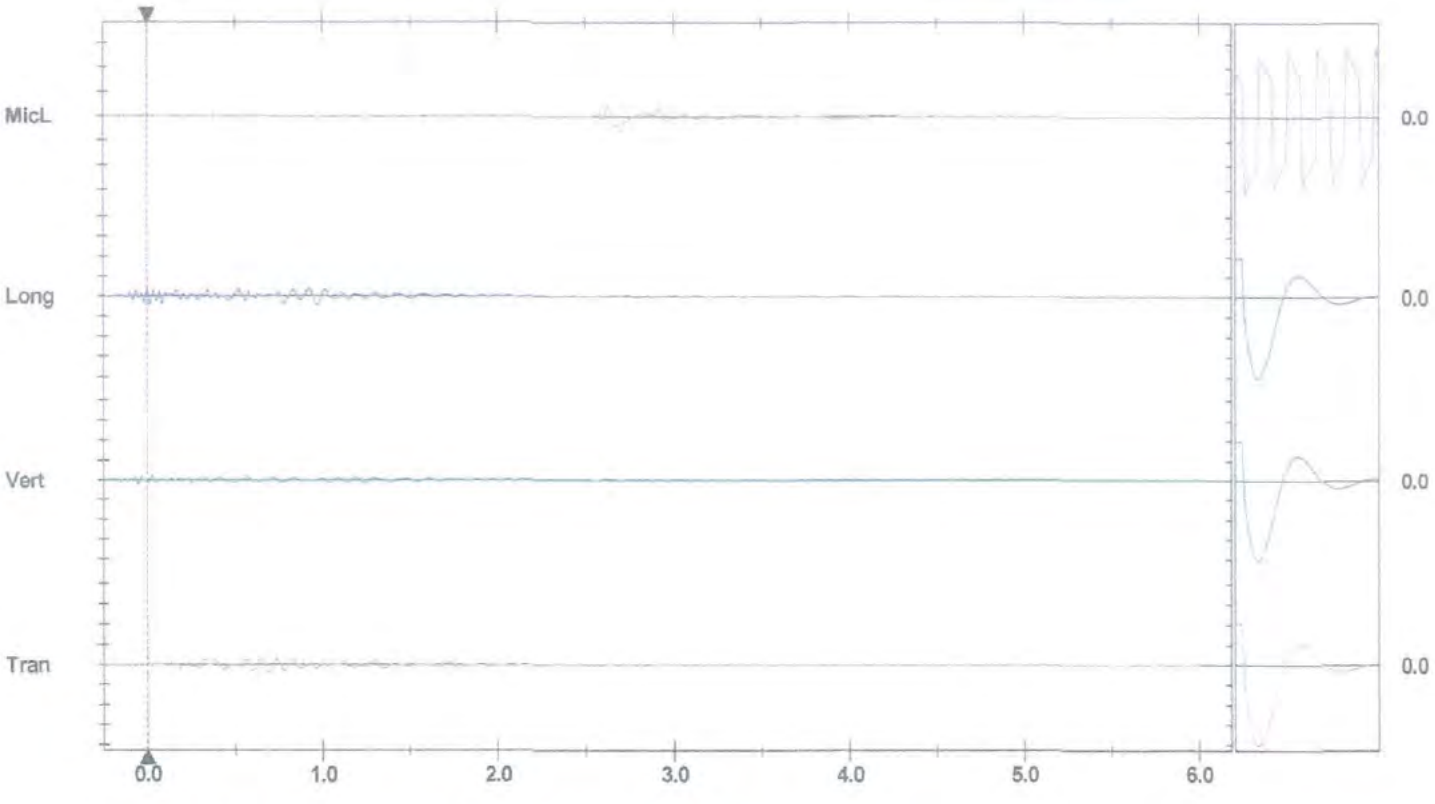
Extended Notes

Microphone	Linear Weighting
PSPL	109.5 dB(L) at 2.694 sec
ZC Freq	5.0 Hz
Channel Test	Passed (Freq = 20.1 Hz Amp = 546 mv)

	Tran	Vert	Long	
PPV	0.762	0.508	0.889	mm/s
ZC Freq	15	32	30	Hz
Time (Rel. to Trig)	0.601	0.027	0.019	sec
Peak Acceleration	0.0133	0.0265	0.0265	g
Peak Displacement	0.0127	0.00577	0.0134	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.1	7.4	7.3	Hz
Overswing Ratio	3.9	3.3	3.8	

Peak Vector Sum 1.10 mm/s at 0.776 sec





Time Scale: 0.50 sec/div **Amplitude Scale:** Geo: 2.00 mm/s/div Mic: 10.00 pa.(L)/div

Trigger = ▶----------◀

Sensor Check

Instantel

Event Report

Date/Time	Long at 13:06:03 February 5, 2018 (13:05:47)
Trigger Source	Geo: 0.810 mm/s
Range	Geo: 254 mm/s
Record Time	6.0 sec at 1024 sps
Notes	

Serial Number	BE13371 V 10.72-1.1 Minimate Blaster
Battery Level	6.0 Volts
Unit Calibration	June 1, 2017 by Saros Int.
File Name	__TEMP.EVT
Post Event Notes	
Customer Site	Blakebrook
Blast ID	BLA 32
Monitor Location	[redacted] Boorie Creek RD
Monitored By	[redacted]

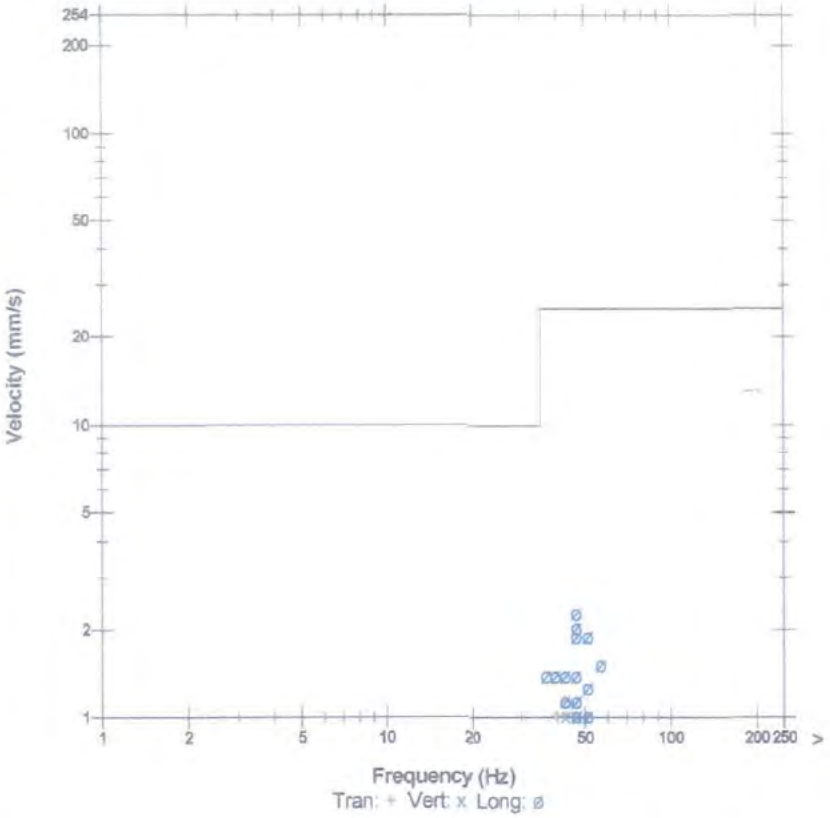
Extended Notes

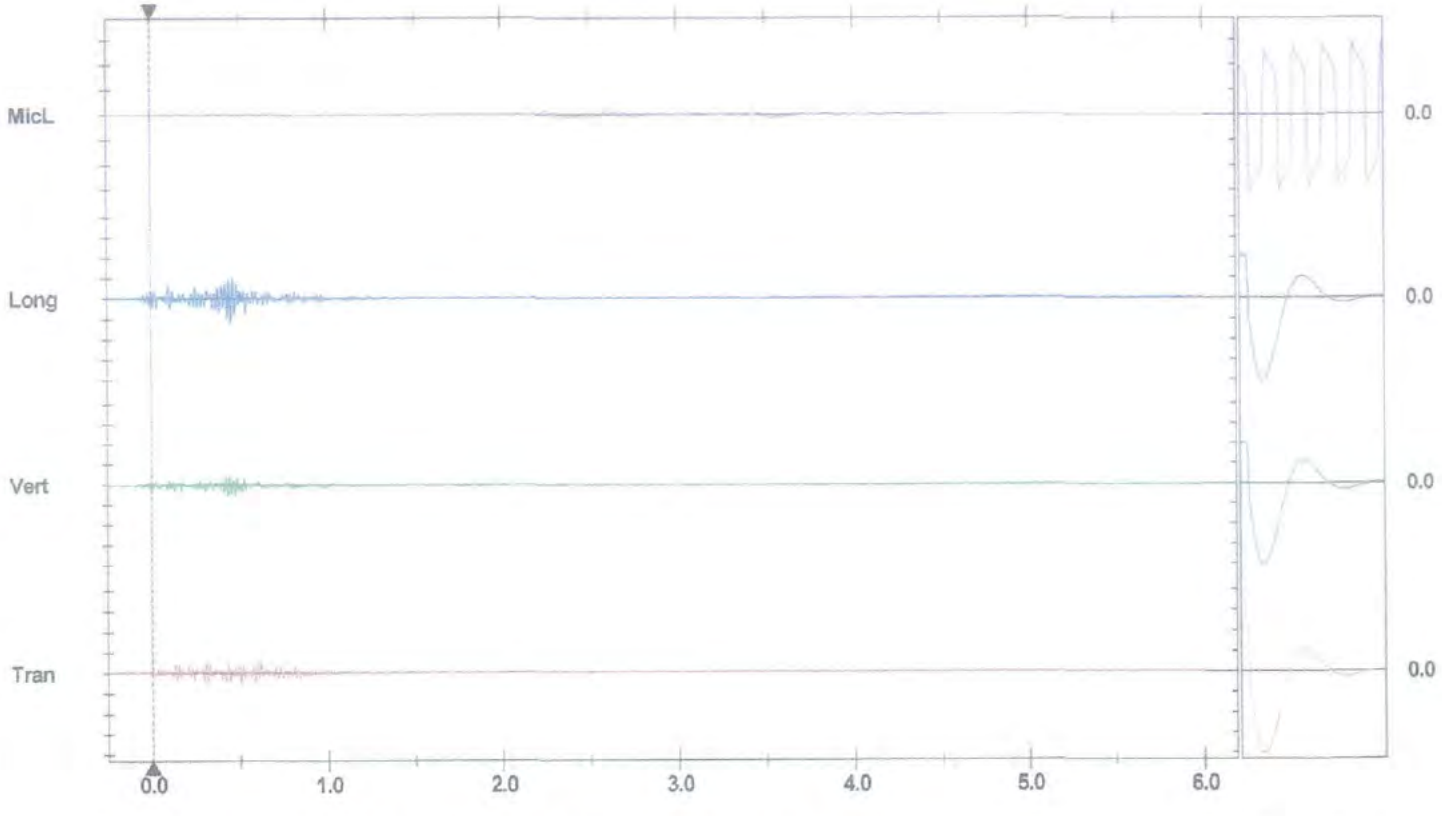
Microphone	Linear Weighting
PSPL	104.2 dB(L) at 2.607 sec
ZC Freq	7.3 Hz
Channel Test	Passed (Freq = 20.1 Hz Amp = 530 mv)

	Tran	Vert	Long	
PPV	1.14	1.02	2.29	mm/s
ZC Freq	43	47	47	Hz
Time (Rel. to Trig)	0.309	0.436	0.456	sec
Peak Acceleration	0.0398	0.0398	0.0663	g
Peak Displacement	0.00434	0.00384	0.00812	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.4	7.5	7.5	Hz
Overswing Ratio	3.9	3.6	3.9	

Peak Vector Sum 2.50 mm/s at 0.458 sec

QLD APP Standard





Time Scale: 0.50 sec/div **Amplitude Scale:** Geo: 2.00 mm/s/div Mic: 10.00 pa.(L)/div

Trigger = ▶----------◀

Sensor Check

Instantel

Event Report

Date/Time	Tran at 14:27:41 April 9, 2018
Trigger Source	Geo: 0.810 mm/s
Range	Geo: 254.0 mm/s
Record Time	6.0 sec at 1024 sps

Notes

Serial Number	BE12705 V 10.72-1.1 Minimate Blaster
Battery Level	6.1 Volts
Unit Calibration	April 10, 2017 by Saros (Int)
File Name	N705HD2Y.U50

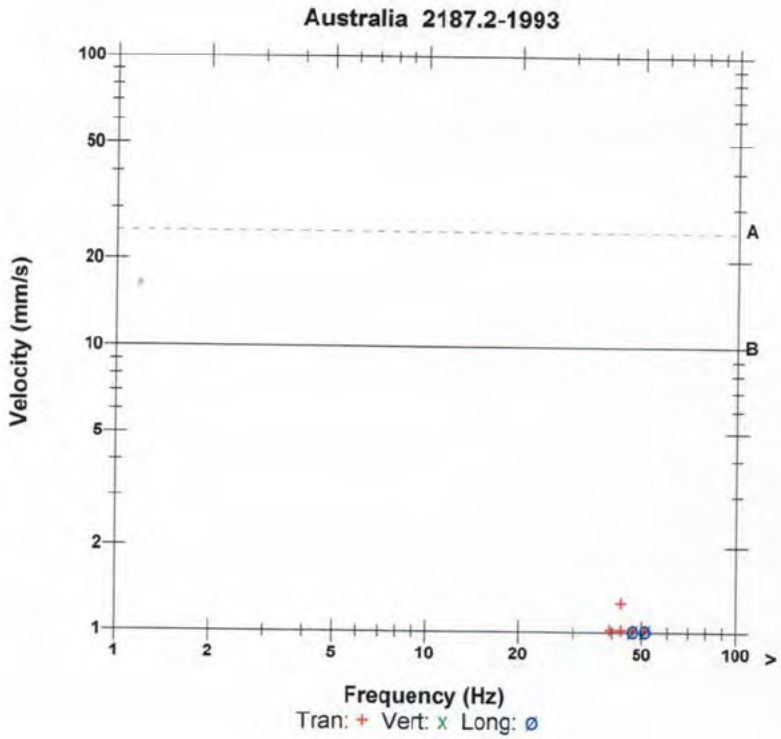
Post Event Notes
NRQA Blakebrook BLA 33
[redacted] Nimbin Road

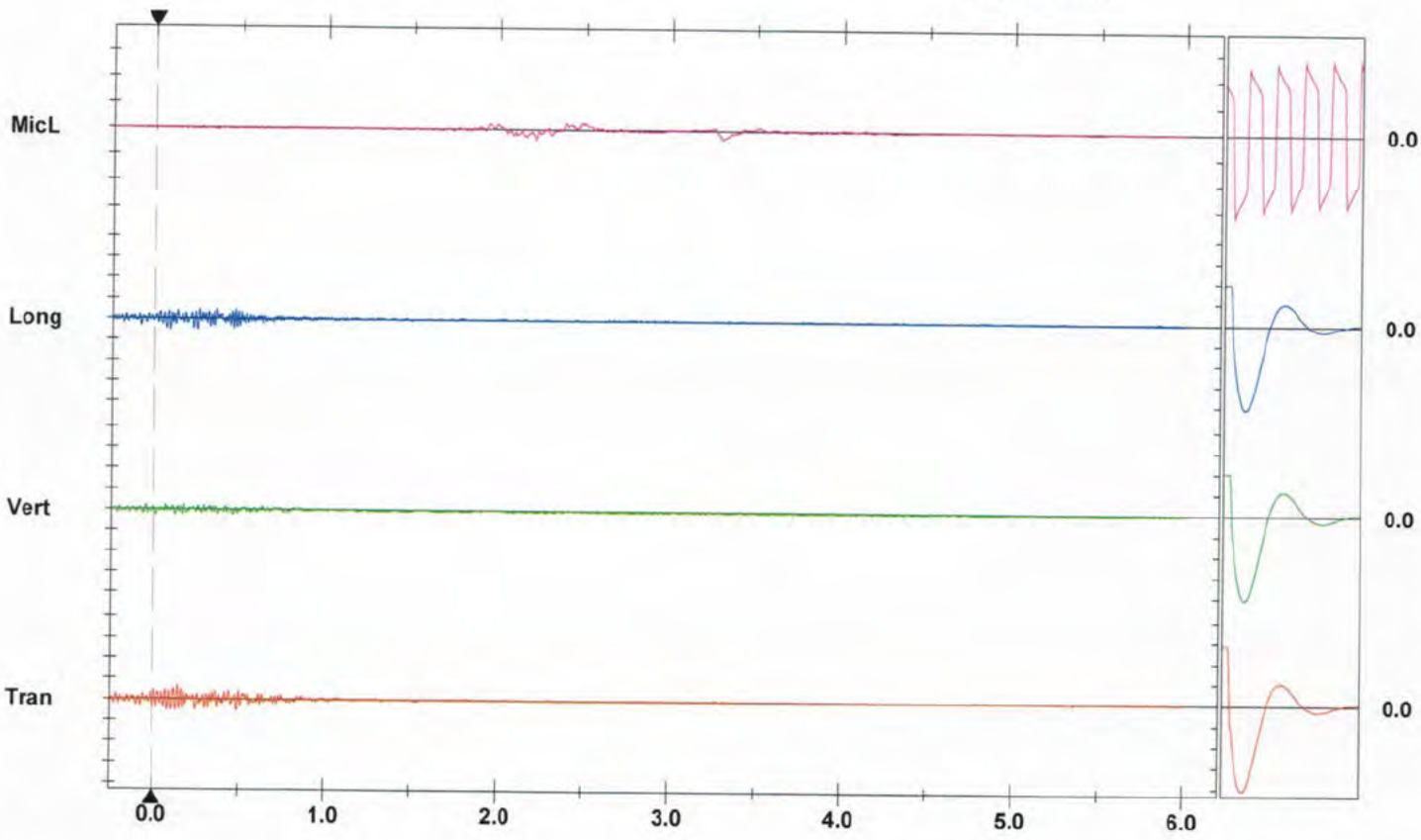
Extended Notes

Microphone	Linear Weighting
PSPL	105.5 dB(L) at 2.213 sec
ZC Freq	2.6 Hz
Channel Test	Passed (Freq = 20.1 Hz Amp = 475 mv)

	Tran	Vert	Long	
PPV	1.270	0.508	1.016	mm/s
ZC Freq	43	39	51	Hz
Time (Rel. to Trig)	0.146	0.012	0.089	sec
Peak Acceleration	0.040	0.027	0.040	g
Peak Displacement	0.005	0.004	0.004	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.5	7.4	7.3	Hz
Overswing Ratio	3.8	3.6	3.8	

Peak Vector Sum 1.442 mm/s at 0.089 sec





Time Scale: 0.50 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div
Trigger = ▶ ◀

Sensor Check

Printed: April 13, 2018 (V 10.74)

Instantel

Event Report

Date/Time	Long at 14:27:43 April 9, 2018
Trigger Source	Geo: 0.810 mm/s
Range	Geo: 254.0 mm/s
Record Time	6.0 sec at 1024 sps

Notes

Serial Number	BE13456 V 10.72-1.1 Minimate Blaster
Battery Level	6.1 Volts
Unit Calibration	June 1, 2017 by Saros Int.
File Name	O456HD2Y.U70

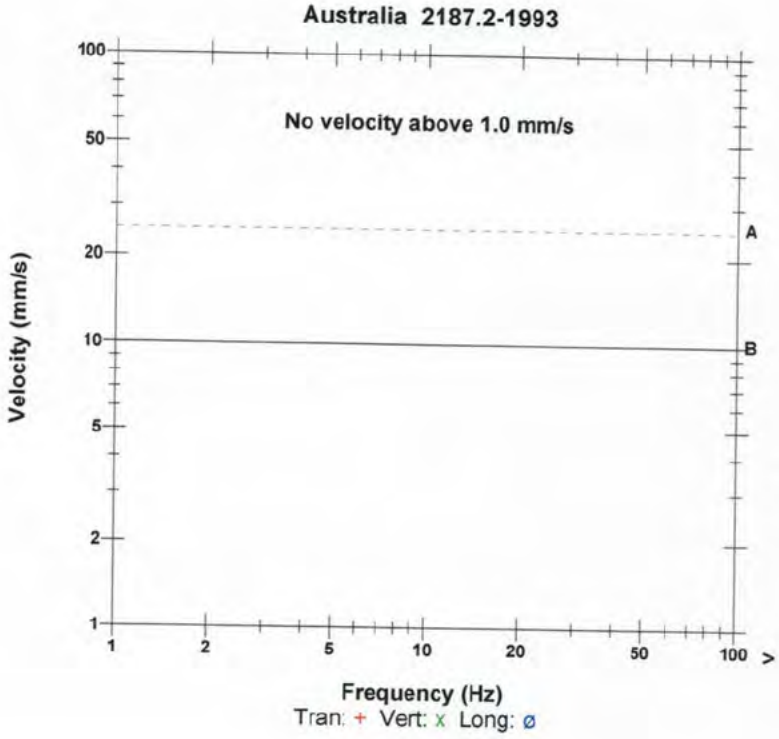
Post Event Notes
NRQA Blakebrook BLA 33
[redacted] Boorie Creek Road

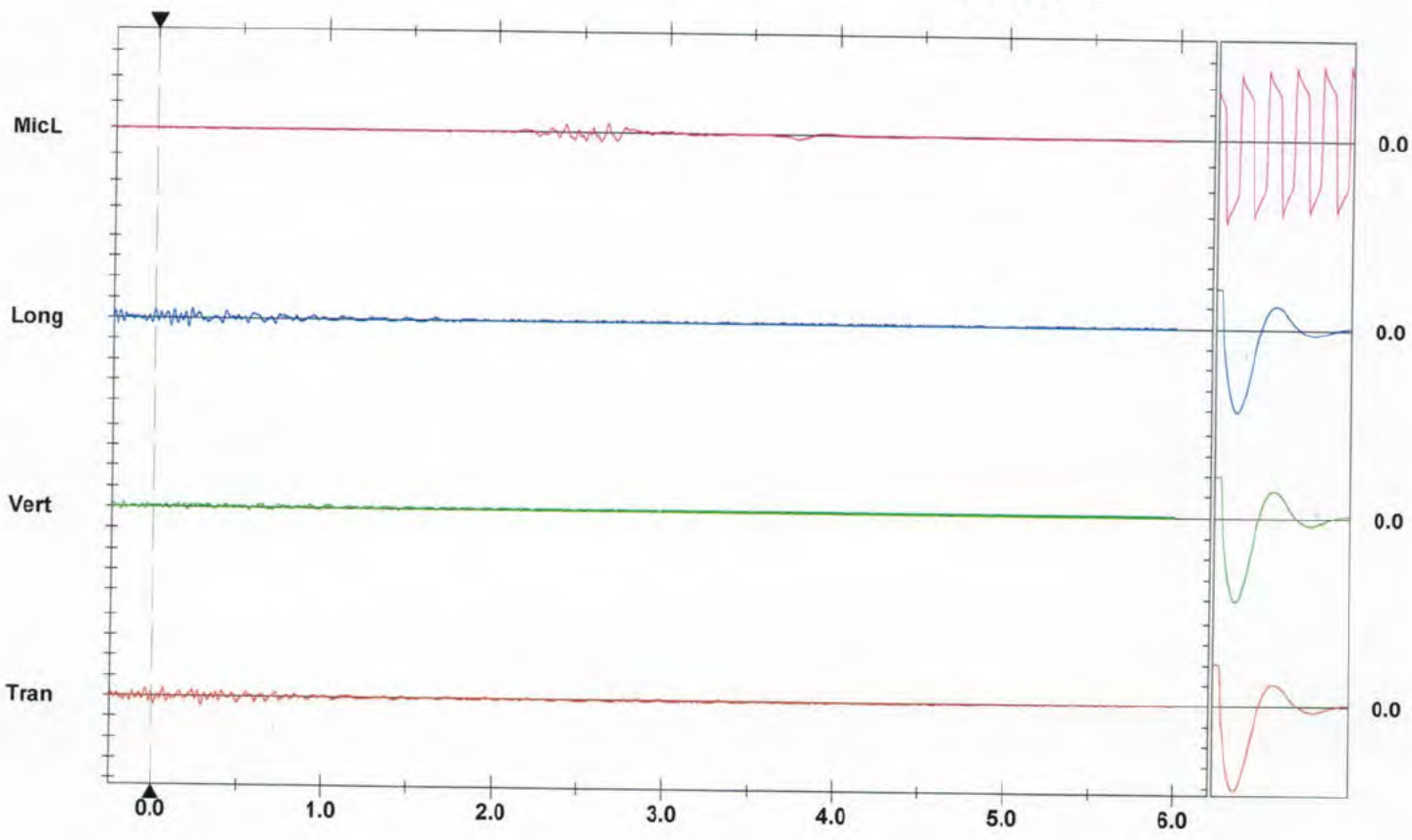
Extended Notes

Microphone	Linear Weighting
PSPL	104.9 dB(L) at 2.640 sec
ZC Freq	18 Hz
Channel Test	Passed (Freq = 20.1 Hz Amp = 592 mv)

	Tran	Vert	Long	
PPV	0.889	0.381	0.889	mm/s
ZC Freq	22	37	32	Hz
Time (Rel. to Trig)	0.015	-0.182	0.196	sec
Peak Acceleration	0.027	0.013	0.027	g
Peak Displacement	0.006	0.003	0.009	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.1	7.4	7.2	Hz
Overswing Ratio	3.9	3.2	3.7	

Peak Vector Sum 0.933 mm/s at 0.196 sec





Time Scale: 0.50 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div
Trigger = ▶——◀

Sensor Check

Printed: April 13, 2018 (V 10.74)

DONNELLY BLASTING SERVICES

BLAST DESIGN AND EVALUATION RECORD

CUSTOMER INFORMATION

Customer	NRQA	Shotfirer	[redacted]
Order No.		Location	BACK PIT
BLA34 V2 SHOT 1 OF 2 PARTS			
Blast Date	12-6-18		
Blast Type	PRODUCTION	Rock Type	BASALT
Blast Time	14:38:21	Rock Density	2.8

ATTACHMENTS (Initial)

1. Blast Geometry	
2. Explosives Docket	
3. Accessories Docket	
4. Loading Sheet	
5. Initiation Plan	
6. Environmental Report	

Blast Geometry

No. Blastholes	150
No. Wet	150
Blasthole Diameter (mm)	89mm
Bench Height	6.0m AVG
Burden (m)	2.8m
Spacing (m)	2.8m
Stemming (m)	2.4m
Subdrill (m)	1.0m
Blast Tonnes (Tn)	19,756.80
Blast Volume (BCM)	7,056.00
Survey Blast Volume (BCM)	
Powder Factor (Kg/m^3) Design	
Powder Factor (Kg/m^3) ACTUAL	0.518

Explosives & Accessories

Explosives	Type/Dia	Dens/Ctgs	Mass (kg)
DRY	—	—	—
WET	ORICA		
	EMULSION		
TOTAL	3660Kg		3660Kg

Primers	Type	No.	Mass (kg)
CAST BOOSTER	150G	150	22.5Kg

Indicators	Delay	Length	Number
Inhole	400m/s	6.1m	37
Inhole	400m/s	9m	109
Inhole	400m/s	15m	4
Inhole			
Surface	9m/s	3.6m	1
Surface	17m/s	3.6m	29
Surface	25m/s	3.6m	23
Surface	42m/s	3.6m	80
	65m/s	4.9m	17

Cord	Type	Length
—	—	—

Environmental Readings

Cloud Cover	20%	M.I.C (kg)	
Wind (m/S)	8KMH	Direction	NNW
Temperature	21°	Humidity	47%

Location	PPV (mm/S)	AB (dbL)	Dist (m)
(1) FRONT HOUSE	.51mm	98.8	
(2) Test HORSES	NO TRIGGER		
(3) Test REAR PROPERTY	NO TRIGGER		

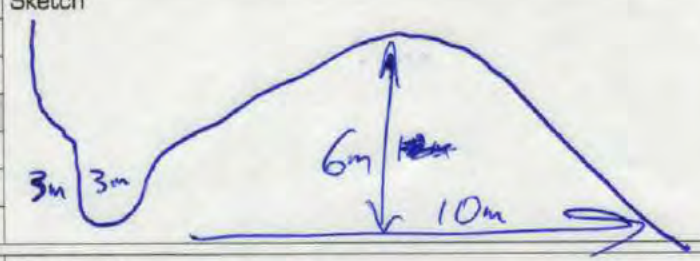
RESULTS

Fragmentation	Visual Only
Max Dim (m)	**% Pass**
(<1m)	98%
(1-2)	2%
(>2m)	—

Comments
Customer [illegible]

Profile	
Throw (m)	10m
Rockpile Height (m)	6m
Power Trough	
Width (m)	3m
Depth (m)	3m
Comments	—

Sketch



Overbreak	
Side (m)	.5m
Back (m)	.5m

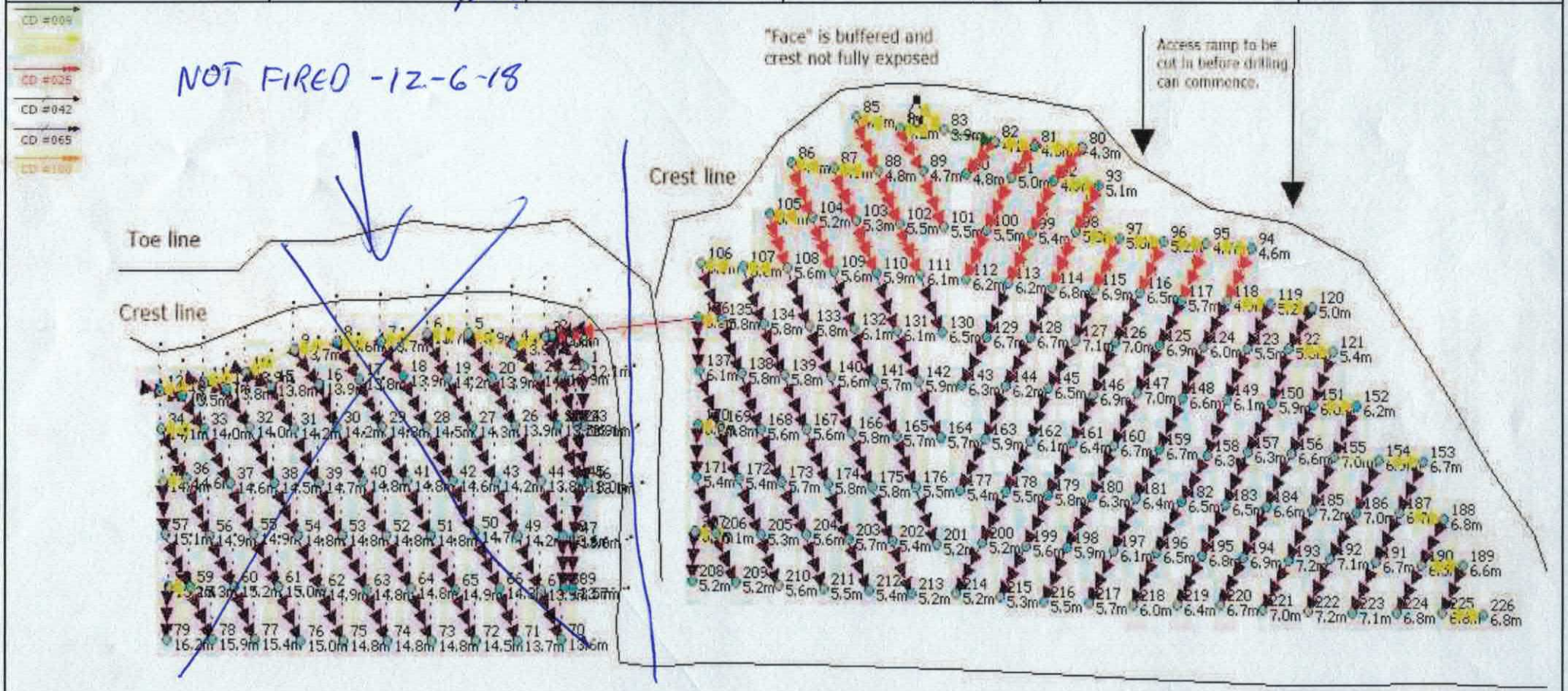
Comments

Comments: SHOT HEAVILY BUFFERED, CHOKED SHOT, HELD UP MOVEMENT FOWARD.

DONNELLY BLASTING SERVICES

29 Kilmore Drive, Tamborine QLD 4270 Mobile: 0407 597 957 Fax: (07) 55438619 ABN 48 141 953 291

				CUSTOMER NAME	NRQA
				LOCATION	Blakebrook
				SHOT No.	BLA 34 v2
				BENCH No.	Back pit
BURDEN	2.8	HOLE DEGREE	10 - 0*	DATE	12/6/18
SPACING	2.8	SUBDRILL	1	WEATHER	FINE
AV DEPTH	~~8.80~~ 6.0m	METERS OF CHARGE		ROCK DENSITY	2.8
TOTAL No. HOLES	~~226~~ 150	METERS OF STEMMING	2.4m	FRONT ROW BURDEN	3
TOTAL BCM	~~16480.89~~ 7056.00	GROUND VIBRATION	mm/s	TOTAL DRILL METERS	1989
ESTIMATED TONNES	~~46146.49~~ 19,756.80	OVER PRESSURE	dB(lin)	DRILL BIT	89mm



REMARKS:

Access to top level from the rear of the shot. Access to the split level is from the floor below.

Face of the split bench will be buffered. Lower bench drilled @ 0 degrees.

CUSTOMER SIGNATURE	
SHOTFIRER SIGNATURE	

DONNELLY BLASTING SERVICES

EXPLOSIVES TRANSPORT CARTNOTE

EXPLOSIVES EMERGENCY NO. 1300 739 969

Pick up Address: OBS MAGS

Delivery Address: NRQA BLAKEBROOK

Return Address: OBS MAGS

DONNELLY BLASTING SERVICES
0407 597 957
29 Kilmore Dr, Tamborine QLD 4207

CARTNOTE NUMBER V2-0678

Date: 12-6-18

Departure Time: 4:30

Delivery Time: 7:00

Driver's Name: A. BURGE

Vehicle Registration: 131- XDP

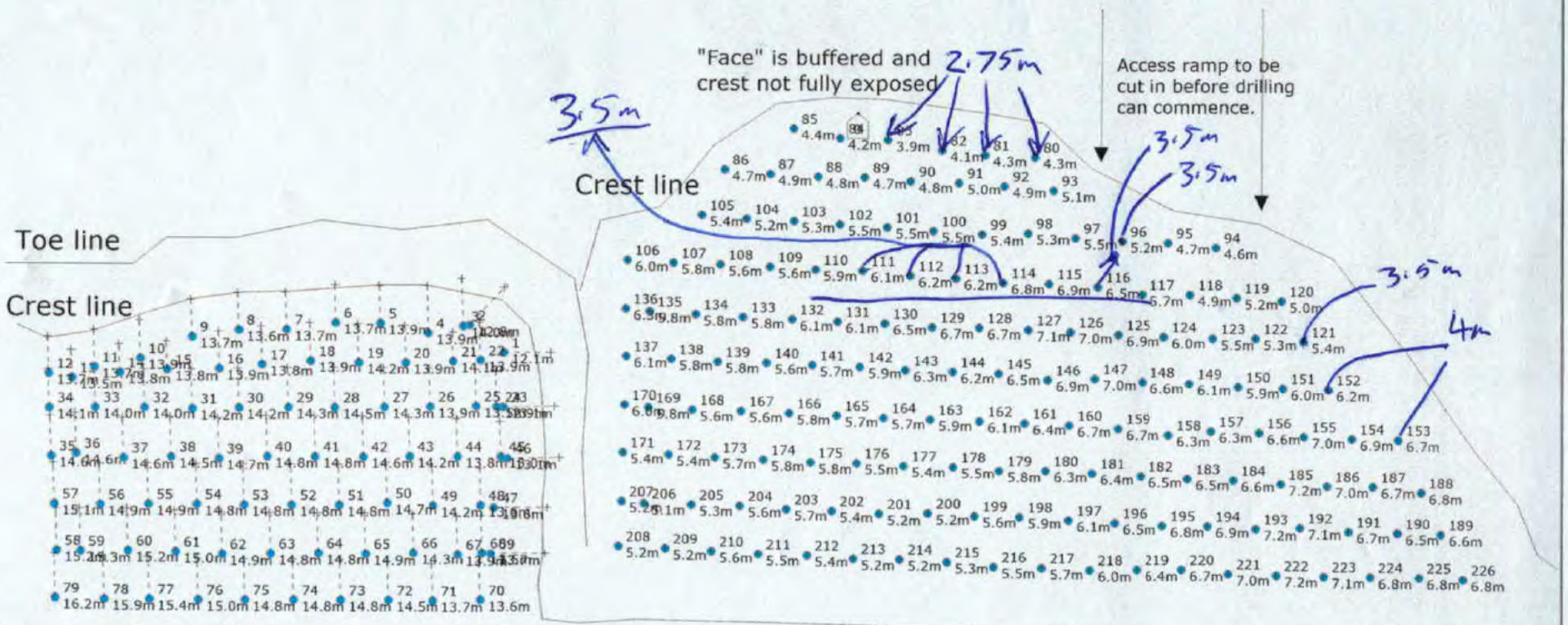
Shot Number: BLA 34

SUPPLIER	GOODS DESCRIPTION	CLASS	UN ID	UNITS	BOXES	USED	BALANCE ON RETURN
ORICA	9m/s 3.6m	1.1B	0360	5	0	1	4
	17m/s 3.6m	1.1B	0360	45	0	29	16
	25m/s 3.6m	1.1B	0360	30	1	23	7
	42m/s 3.6m	1.1B	0360	180	1	80	100
	65m/s 4.9m	1.1B	0360	30	0	17	13
	6.1m 400m/s	1.1B	0360	120	1	37	83
	9m 400m/s	1.1B	0360	164	2	109	55
	15m 400m/s	1.1B	0360	50	1	4	46
	18m 400m/s	1.1B	0360	50	2	0	50
	LEAD IN WIRE	1.4	0349	2	1		
BLAST-TECH	150G BOOSTERS	1.1D	0042	384	4	150	234

Driver's Name: [redacted] Driver's Signature: [redacted] Licence No. 1700422

Customer Name: [redacted] Customer Signature: [redacted]

DOWNLOADS



DONNELLY BLASTING SERVICES

Not to sc

SHOTPlus 5.6.2.7		6/06/2018
Mine	Blakebrook	
Location	Back pit	
Title/author	BLA 34 [redacted]	
Filename	BLA 34.spf	

Delivery Docket

Orica Australia Pty Ltd
A.B.N. 99 004 117 828
The Orica logo is a registered Trade Mark

Customer Copy

BMS ☐ DTH ☑

Project No: ..... **BE**
(WBS Element)

Delivery Docket No: 1601474

Purchase Order No: .....

Sold To	DONNELLY'S	Date	12-6-18
MMU (wk centre)	FM070	Shot Number	
Shot Type	QUARRY	Weight Out	39 080
Operator/s	CB	Weight In	35 420
Time Required	07:20	Weight Deliv.	3660
Time Out Plant	04:50	Time On Site	07:20
Time Off Site	14:10	Time In Plant	

Comments:

Location	Product	Mass Ordered	Mass Deliv.	Mass Agreed
BLAKEBLOCK	BCA(G)	12 000	3660	3660
	Total Kgs Truck		3660	3660

Received By: MTJ

LOAD SHEET 226 HOLES

8.80 AVG DEPTH

2.5m STEM

SHOT CUT OFF DUE TO LACK OF TIME ALLOWED TO DO SHOT,

MAX Kg - ~~35Kg~~ 40Kg

"Face" is buffered and crest not fully exposed

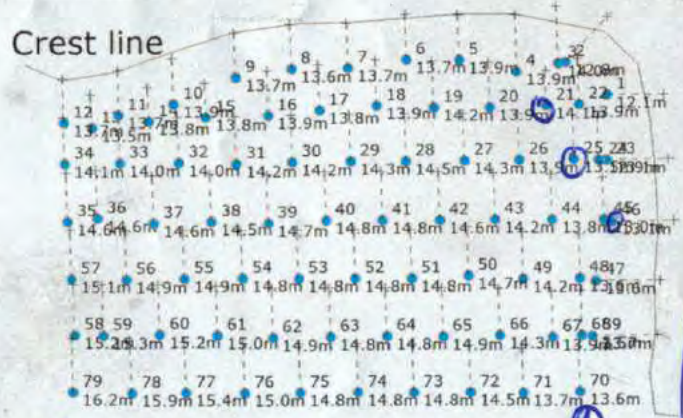
Access ramp to be cut in before drilling can commence.

Crest line

MAX Kg - 100Kg

Toe line

Crest line



* SHOT BAITED, 3 BOOSTERS + LEADS STUCK DOWN 1 HOLES, FIRED BOOSTERS,

DONNELLY BLASTING SERVICES

Not to sc

SHOTPlus 5.6.2.7		6/06/2018
Mine	Blakebrook	
Location	Back pit	
Title/author	BLA 34 [redacted]	
Filename	BLA 34.spf	

SHOT PRE LOADING AND FIRING CHECKLIST

Costumer	NRQA	Shot No.	BLA 34 V2
Location	BLAKE BROOK PIT	Date	12-6-18

This Risk assessment must be completed and signed off by the shotfirer and authorised by the SSE before initiating the shot.

A. PRE-LOADING

What is the Minimum front row burden before hole loading has to be modified? 2.8m

Is the actual burden along the length of each front hole within the allowable Minimum Burden? **YES / (NO)**

IF NO: record on Boretrak / Blast Summary loading details and what has been done to control the risk of flyrock and or overpressure. SEE DOWN LOADS SHEET.

Have all holes not to be loaded / backfilled been stemmed off prior to commencement to loading? **(YES) / NO**

IF NO: Record why holes not stemmed off. _____

B. PRE-INITIATION

Were any holes overfilled? **YES / (NO)**

IF YES, Record for each hole the action taken to reduce the flyrock and Overpressure on the Blast Summary

Has any product Slumping been noticed? **(YES) / NO**

IF YES, Record for each hole the action taken to reduce the flyrock and Overpressure on the Blast Summary

Has any devations from the Blast plan / Blast Summary been Noted **YES / (NO)**

IF YES, Record the deviations and their effects on flyrock and overpressure risks on the Blast summary

C. BULK EXPLOSIVES AND POWDER FACTOR RECONCILIATION

	DESIGN	ACTUAL	VARIATION
BULK EXPLOSIVES (kg)		3660 kg	
POWDER FACTOR (kg/BCM)		0.518	

Is there a variation from the design? **YES / (NO)**

IF YES, Record the reason for the variation and is it acceptable.

D. EXCLUSION ZONE FOR FIRING

Is the normal exclusion zone (for equipment and personnel) appropriate for the size, orientation and configuration of the actual blast charged **(YES) / NO**

IF NO, Specify action to establish an acceptable exclusion zone. _____

Is there any Equipment / Structures left inside the exclusion zone? **(YES) / NO**

IF YES, Specify what is left inside the exclusion zone. CONTRACTOR CRUSHING + SCREENING GEAR INFRONT ON LHS OF SHOT.

Shotfirer Name: [redacted] Shotfirer Signature: [redacted]

The SSE authorise the shot to be fired when the exclusion zone is secure and the shotfirer is in a protected position

SSE Name: [redacted] SSE Signature [redacted]

Event Report

Date/Time Vert at 14:38:21 June 12, 2018
Trigger Source Geo: 0.810 mm/s, Mic: 110.0 dB(L)
Range Geo: 254.0 mm/s
Record Time 6.0 sec at 1024 sps

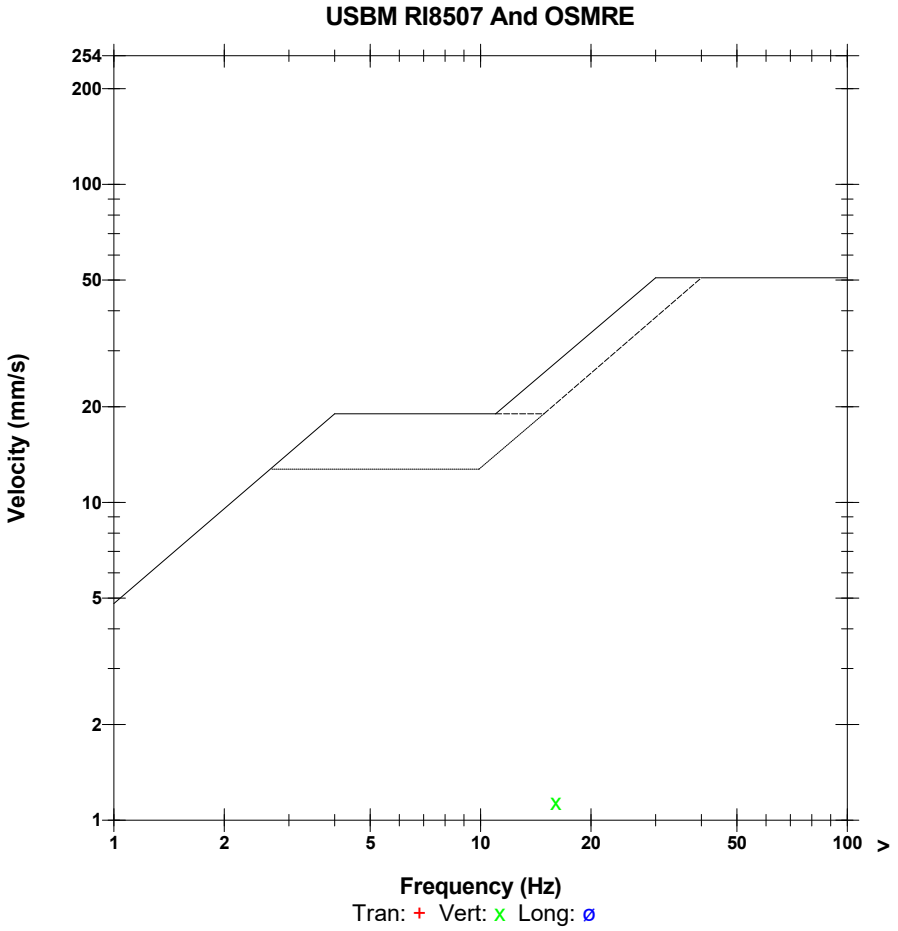
Notes

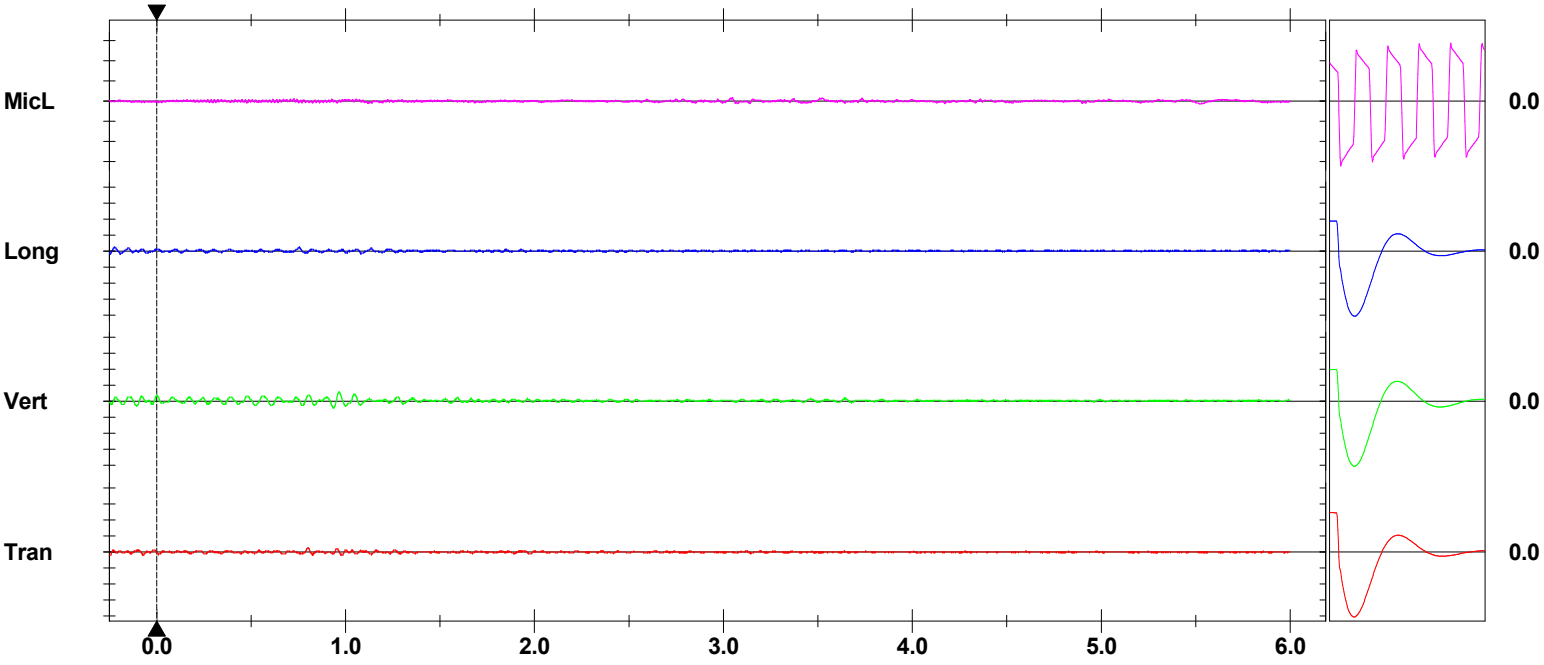
Serial Number BE13456 V 10.72-1.1 Minimate Blaster
Battery Level 6.1 Volts
Unit Calibration May 3, 2018 by Saros (Int)
File Name O456HGDH.ZX0
Post Event Notes
NRQA BLA 34 Bottom Shot
[redacted] Nimbin Road
[redacted]

Microphone Linear Weighting
PSPL 98.8 dB(L) at 3.047 sec
ZC Freq 18 Hz
Channel Test Passed (Freq = 20.1 Hz Amp = 592 mv)

	Tran	Vert	Long	
PPV	0.508	1.143	0.508	mm/s
ZC Freq	26	16	21	Hz
Time (Rel. to Trig)	0.800	0.962	-0.225	sec
Peak Acceleration	0.013	0.027	0.013	g
Peak Displacement	0.003	0.012	0.005	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.5	7.3	Hz
Overswing Ratio	3.9	3.3	3.8	

Peak Vector Sum 1.157 mm/s at 0.964 sec





Time Scale: 0.50 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div
Trigger = ▶----------◀

Sensor Check

NRQA Blake Brook BLA 34 Bottom Shot
Aaron Burge

Event Report: Monitor Log

Start Time	End Time	Status
----------	----------	SERIAL NUMBER: BE12705
Jun 12 /18 13:31:30		Start Monitoring Trigger Level: Geo: 0.810 mm/s
Jun 12 /18 13:31:33	Jun 12 /18 13:31:39	Event recorded. Trigger Level Long: 0.810 mm/s
Jun 12 /18 13:31:39		Start Monitoring Trigger Level: Geo: 0.810 mm/s
Jun 12 /18 14:18:11	Jun 12 /18 14:18:18	Event recorded. Trigger Level Long: 0.810 mm/s
Jun 12 /18 14:18:18		Start Monitoring Trigger Level: Geo: 0.810 mm/s
Jun 12 /18 15:04:32	Jun 12 /18 15:04:35	Event recorded. (Keyboard Exit) Trigger Level Tran: 0.810 mm/s

DONNELLY BLASTING SERVICES

BLAST DESIGN AND EVALUATION RECORD

CUSTOMER INFORMATION

Customer NRQA	Shotfirer [redacted]		
Order No.	Location BLAKEBROOK PIT		
BLA 34 V2 / SHOT 2 - TOPSHOT			
Blast Date 18-6-18			
Blast Type PRODUCTION	Rock Type BASALT		
Blast Time 12:20:38	Rock Density 2.8		

ATTACHMENTS (Initial)

1. Blast Geometry	
2. Explosives Docket	
3. Accessories Docket	
4. Loading Sheet	
5. Initiation Plan	
6. Environmental Report	

Blast Geometry

No. Blastholes	76
No. Wet	76
Blasthole Diameter (mm)	89mm
Bench Height	8.8m
Burden (m)	2.8m
Spacing (m)	2.8m
Stemming (m)	2.5m
Subdrill (m)	1m
Blast Tonnes (Tn)	26,389.69
Blast Volume (BCM)	9,424.89
Survey Blast Volume (BCM)	
Powder Factor (Kg/m^3) Design	/
Powder Factor (Kg/m^3) ACTUAL	0.555

Explosives & Accessories

Explosives	Type/Dia	Dens/Ctgs	Mass (kg)
DRY			
WET	ORICA		
	EMULSION		5240kg
TOTAL			5240kg

Primers	Type	No.	Mass (kg)
CAST	1504	126	18.9kg
BOOSTER			

Indicators	Delay	Length	Number
Inhole	400m/s	6.1m	53
Inhole	400m/s	15m	33
Inhole	400m/s	18m	40
Inhole			
Surface	9m/s	3.6m	1
Surface	17m/s	3.6m	11
Surface	25m/s	3.6m	11
Surface	42m/s	3.6m	51

Cord	Type	Length
—	—	—

Environmental Readings

Cloud Cover 0		M.I.C (kg)	180kg
Wind (m/S) 23km/H		Direction	W
Temperature 17°		Humidity	35%

	Location	PPV (mm/S)	AB (dbL)	Dist (m)
(1)	HOUSE FRONT	0.51	104.9	
	Test			
	HORSE (2)	NO TRIGGER		
	Test			
(3)	REAR PROPERTY	1.65	109.2	

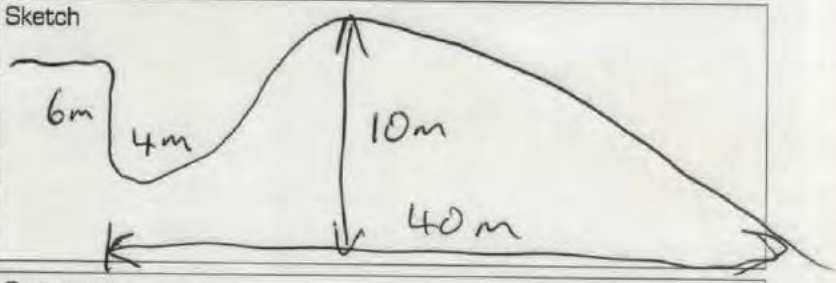
RESULTS

Fragmentation	Visual Only
Max Dim (m)	% Pass
(<1m)	99%
(1-2)	1%
(>2m)	—

Comments
Customer ✓

Profile	
Throw (m)	40m
Rockpile Height (m)	10m
Power Trough	
Width (m)	4m
Depth (m)	6m
Comments	—

Sketch



Overbreak	
Side (m)	1.5m
Back (m)	1.5m

Comments

Comments

SHOT PRE LOADING AND FIRING CHECKLIST

Costumer	NRQA	Shot No.	BLAV2 34 / SHOT2 TOPSHOT
Location	BLAKEBROOK	Date	18-6-18

This Risk assessment must be completed and signed off by the shotfirer and authorised by the SSE before initiating the shot.

A. PRE-LOADING

What is the Minimum front row burden before hole loading has to be modified? 2.8m

Is the actual burden along the length of each front hole within the allowable Minimum Burden? YES / (NO)

IF NO: record on Boretrak / Blast Summary loading details and what has been done to control the risk of flyrock and or overpressure. SEE DOWNLOADS

Have all holes not to be loaded / backfilled been stemmed off prior to commencement to loading? (YES) / NO

IF NO: Record why holes not stemmed off. _____

B. PRE-INITIATION

Were any holes overfilled? YES / (NO)

IF YES, Record for each hole the action taken to reduce the flyrock and Overpressure on the Blast Summary

Has any product Slumping been noticed? YES / (NO)

IF YES, Record for each hole the action taken to reduce the flyrock and Overpressure on the Blast Summary

Has any devations from the Blast plan / Blast Summary been Noted YES / (NO)

IF YES, Record the deviations and their effects on flyrock and overpressure risks on the Blast summary

C. BULK EXPLOSIVES AND POWDER FACTOR RECONCILIATION

	DESIGN	ACTUAL	VARIATION
BULK EXPLOSIVES (kg)	/	5240 kg	/
POWDER FACTOR (kg/BCM)	/	0.555	/

Is there a variation from the design? YES / (NO)

IF YES, Record the reason for the variation and is it acceptable.

D. EXCLUSION ZONE FOR FIRING

Is the normal exclusion zone (for equipment and personnel) appropriate for the size, orientation and configuration of the actual blast charged (YES) / NO

IF NO, Specify action to establish an acceptable exclusion zone. _____

Is there any Equipment / Structures left inside the exclusion zone? (YES) / NO

IF YES, Specify what is left inside the exclusion zone. CONTRACTOR CRUSHING + SCREENING EQUIPMENT 600m RHS INFRONT OF SHOT.

Shotfirer Name: [redacted] Shotfirer Signature: [redacted]

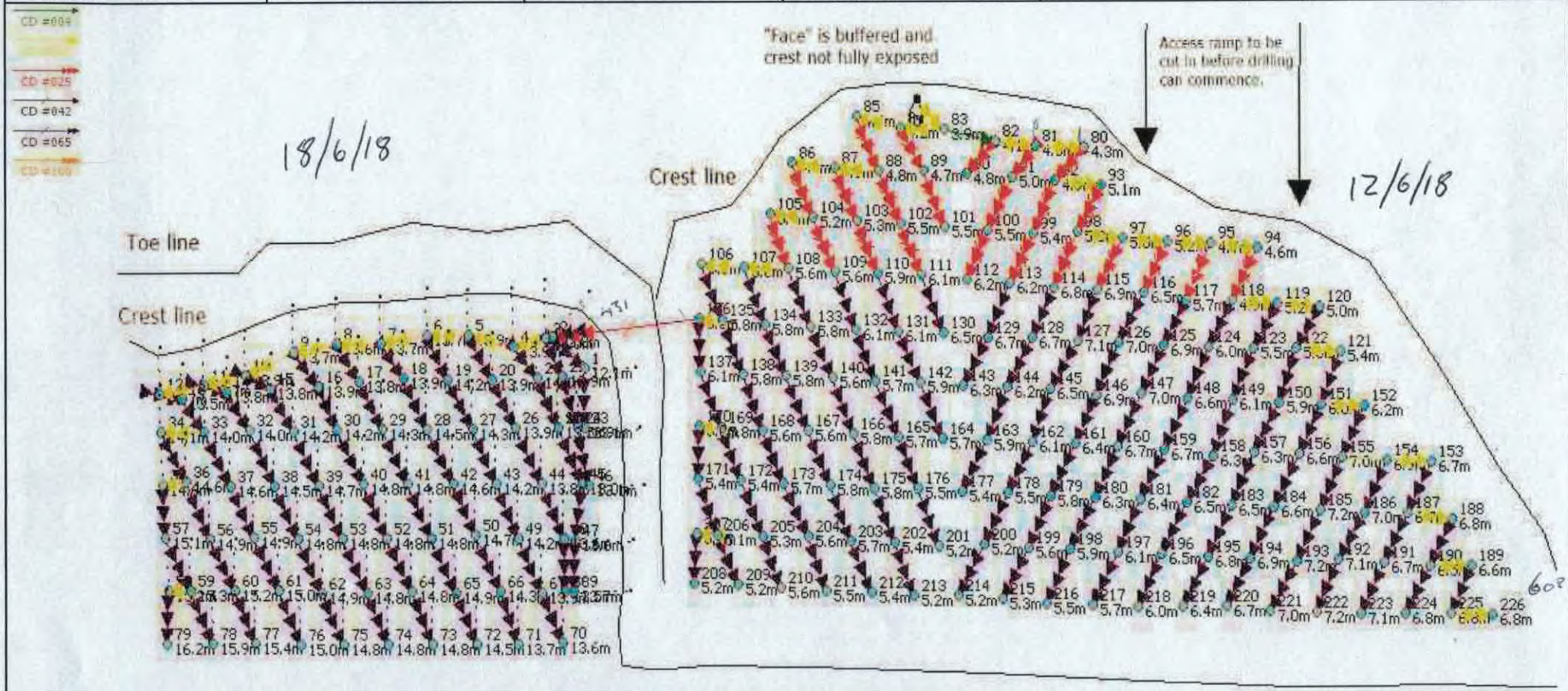
The SSE authorise the shot to be fired when the exclusion zone is secure and the shotfirer is in a protected position

SSE Name: [redacted] SSE [redacted]

DONNELLY BLASTING SERVICES

29 Kilmore Drive, Tamborine QLD 4270 Mobile: 0407 597 957 Fax: (07) 55438619 ABN 48 141 953 291

				CUSTOMER NAME	NRQA
				LOCATION	Blakebrook
				SHOT No.	BLA 34 v2
				BENCH No.	Back pit
BURDEN	2.8	HOLE DEGREE	10 - 0*	DATE	12/18 /6/18
SPACING	2.8	SUBDRILL	1	WEATHER	FINE
AV DEPTH	8.80	METERS OF CHARGE	—	ROCK DENSITY	2.8
TOTAL No. HOLES	226	METERS OF STEMMING	2.5m	FRONT ROW BURDEN	3
TOTAL BCM	16480.89	GROUND VIBRATION	SEE BLAST mm/s	TOTAL DRILL METERS	1989
ESTIMATED TONNES	46146.49	OVER PRESSURE	EVALUATION dB(lin)	DRILL BIT	89mm



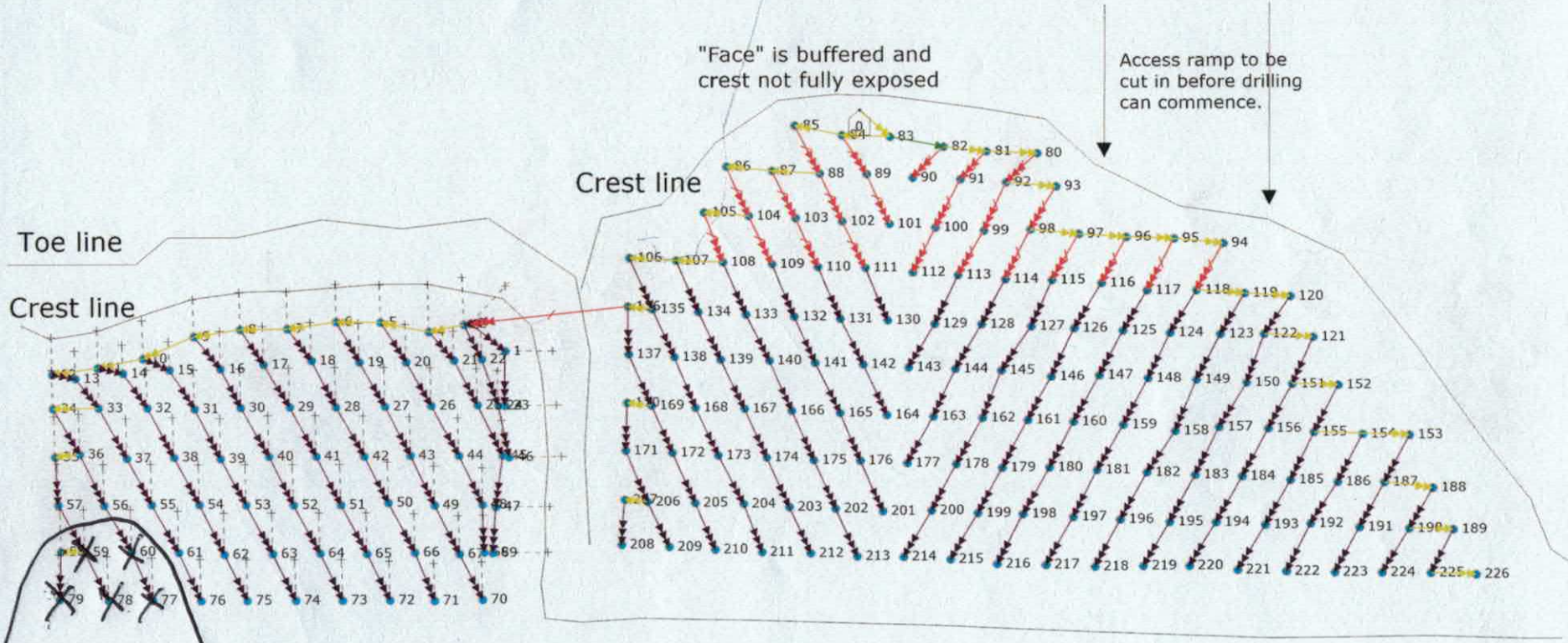
REMARKS:

Access to top level from the rear of the shot. Access to the split level is from the floor below.

Face of the split bench will be buffered. Lower bench drilled @ 0 degrees.

CUSTOMER SIGNATURE	
SHOTFIRER SIGNATURE	

130



DONNELLY BLASTING SERVICES

Not to sc

SHOTPlus 5.6.2.7		6/06/2018
Mine	Blakebrook	
Location	Back pit	
Title/author	BLA 34 Mike Courtney	
Filename	BLA 34.spf	

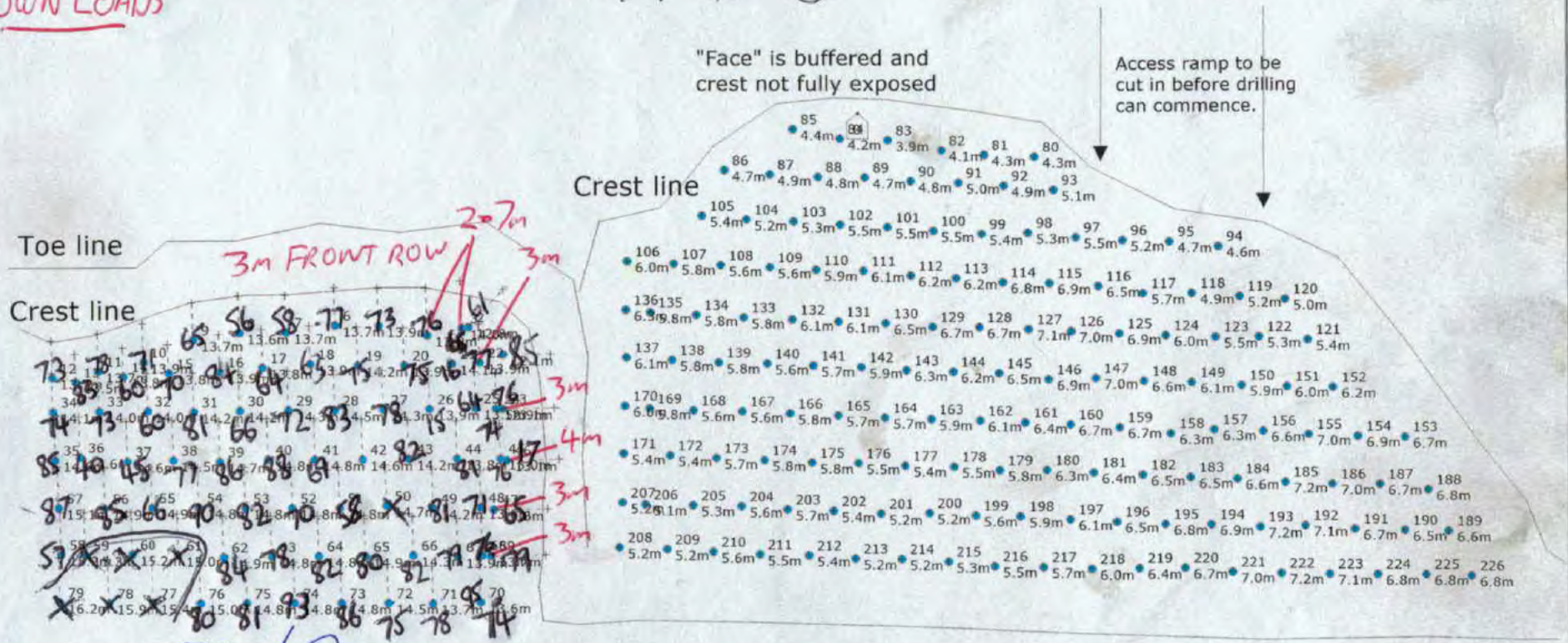
LOAD SHEET STEM - 2.5m

AVG DEPTH - 14m

MAX kg 95kg

79 HOLES

DOWN LOADS



DONNELLY BLASTING SERVICES

Not to sc

SHOTPlus 5.6.2.7	6/06/2018
Mine	Blakebrook
Location	Back pit
Title/author	BLA 34 [redacted]
Filename	BLA 34.spf

Delivery Docket

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Customer Copy

BMS ☐ DTH ☑

Project No: ..... **BE**
(WBS Element)

Delivery Docket No: 1601394

Purchase Order No: .....

Sold To	DONNELLY'S	Date	18-6-18
MMU (wk centre)	HM004	Shot Number	
Shot Type	QUARRY	Weight Out	22 200
Operator/s	EB	Weight In	16 960
Time Required	07:35	Weight Deliv.	5 240
Time Out Plant	04:55	Time On Site	07:35
Time Off Site	11:30	Time In Plant	

Comments:

Location	Product	Mass Ordered	Mass Deliv.	Mass Agreed
BLAKE-BROOK	BLAST	7000	5240	5240
	Total Kgs Truck		5240	5240

Received By:

DONNELLY BLASTING SERVICES

EXPLOSIVES TRANSPORT CARTNOTE

EXPLOSIVES EMERGENCY NO. 1300 739 969

DONNELLY BLASTING SERVICES
0407 597 957
29 Kilmore Dr, Tamborine QLD 4207

CARTNOTE NUMBER V2-0681

Pick up Address: DBS MAGS

Delivery Address: LISMORE NRQA

Return Address: DBS MAGS

Date: 18-6-18

Departure Time: 5:00

Delivery Time: 7:30

Driver's Name: [redacted]

Vehicle Registration: 131-XDP

Shot Number: BLA34V2

SUPPLIER	GOODS DESCRIPTION	CLASS	UN ID	UNITS	BOXES	USED	BALANCE ON RETURN
ORICA	6·1m 400m/s	1·1B	0360	60	1	53	7
	15m 400m/s	1·1B	0360	50	1	33	17
	18m 400m/s	1·1B	0360	40	1	40	0
	9m/s 3·6m	1·1B	0360	5	0	1 ~~0~~	4 ~~5~~
	17m/s 3·6m	1·1B	0360	20	0	11 ~~12~~	9 ~~8~~
	25m/s 3·6m	1·1B	0360	15	0	11	4
	42m/s 3·6m	1·1B	0360	60	1	51	9
	LEAD IN LINE	1·4B	~~0042~~ 0349	~~150~~ 1	1		
BLAST-TECH	150 GRAM BOOSTERS	1·1D	0042	150	2	126 ~~136~~	24 ~~14~~

Driver's Name: [redacted]

Driver's Signature: [redacted]

Licence No. 1700422 XBLS200993

Customer Name: [redacted]

Customer Signature:

Event Report

Date/Time Long at 12:20:37 June 18, 2018
Trigger Source Geo: 0.810 mm/s
Range Geo: 254.0 mm/s
Record Time 6.0 sec at 1024 sps

Notes

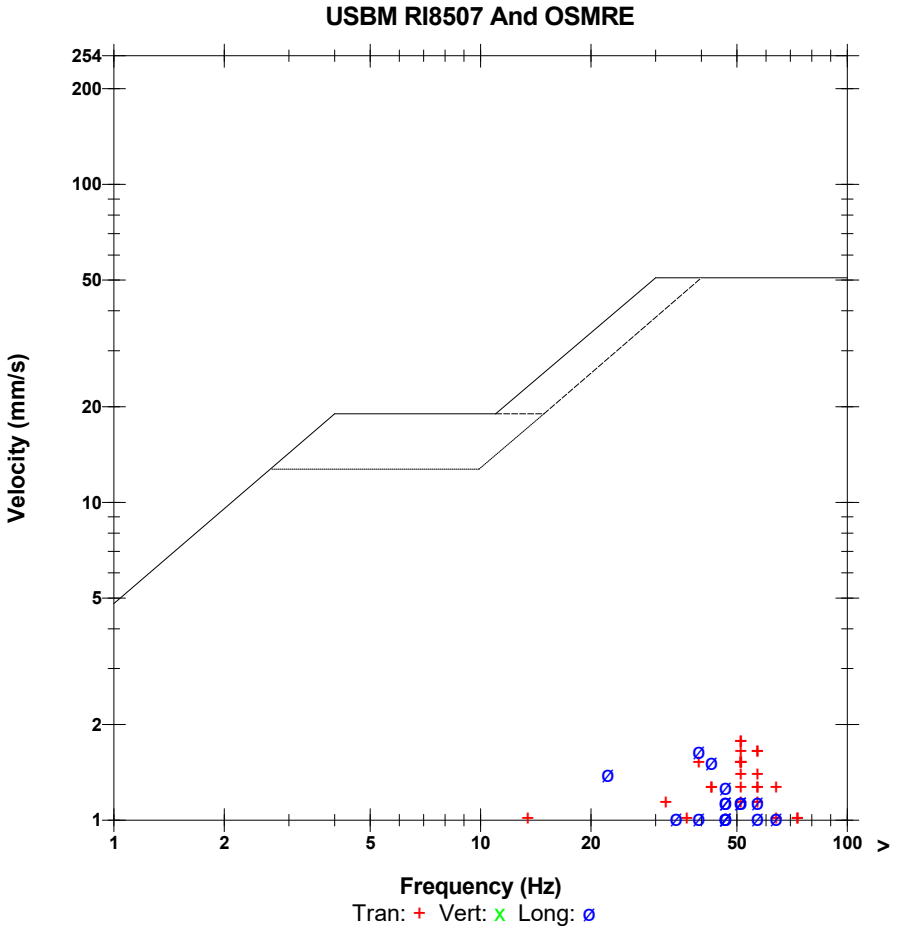
Serial Number BE12705 V 10.72-1.1 Minimate Blaster
Battery Level 6.0 Volts
Unit Calibration May 30, 2018 by Saros Int.
File Name N705HGOF.MD0
Post Event Notes
NRQA BLA 34 Top Shot
[redacted] Nimbin Road
[redacted]

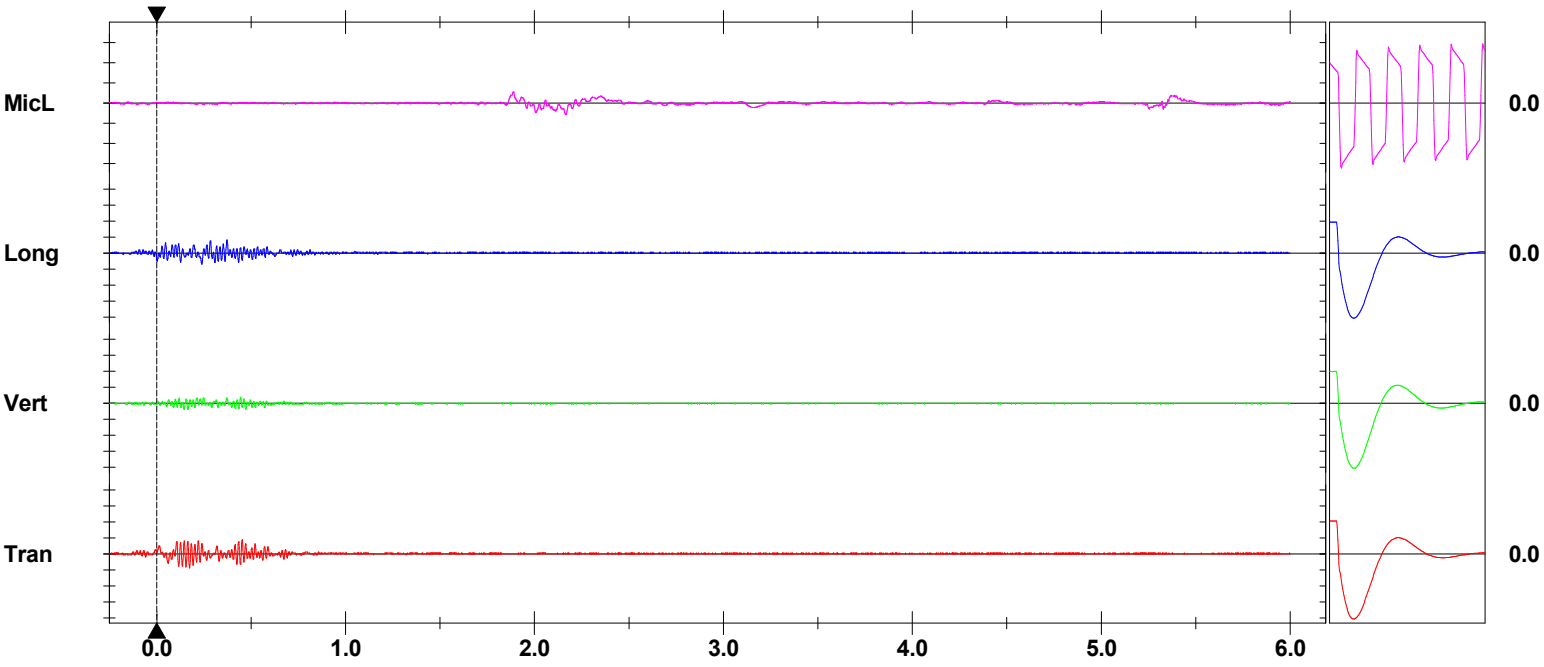
Extended Notes

Microphone Linear Weighting
PSPL 109.2 dB(L) at 2.164 sec
ZC Freq 6.3 Hz
Channel Test Passed (Freq = 20.1 Hz Amp = 558 mv)

	Tran	Vert	Long	
PPV	1.778	0.762	1.651	mm/s
ZC Freq	51	43	39	Hz
Time (Rel. to Trig)	0.175	0.145	0.371	sec
Peak Acceleration	0.066	0.027	0.040	g
Peak Displacement	0.010	0.003	0.008	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.4	7.3	Hz
Overswing Ratio	4.0	3.7	4.1	

Peak Vector Sum 2.052 mm/s at 0.452 sec





Time Scale: 0.50 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div
Trigger = ▶----------◀

Sensor Check

Event Report

Date/Time Tran at 12:20:38 June 18, 2018
Trigger Source Geo: 0.810 mm/s
Range Geo: 254.0 mm/s
Record Time 6.0 sec at 1024 sps

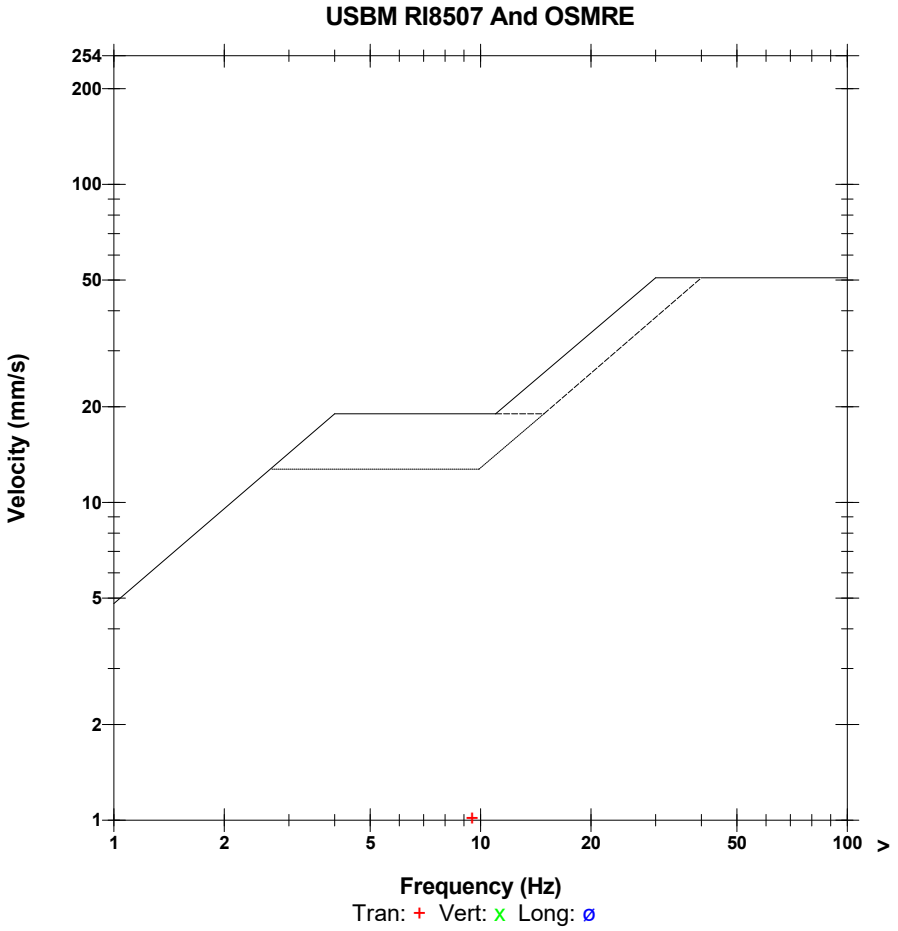
Notes

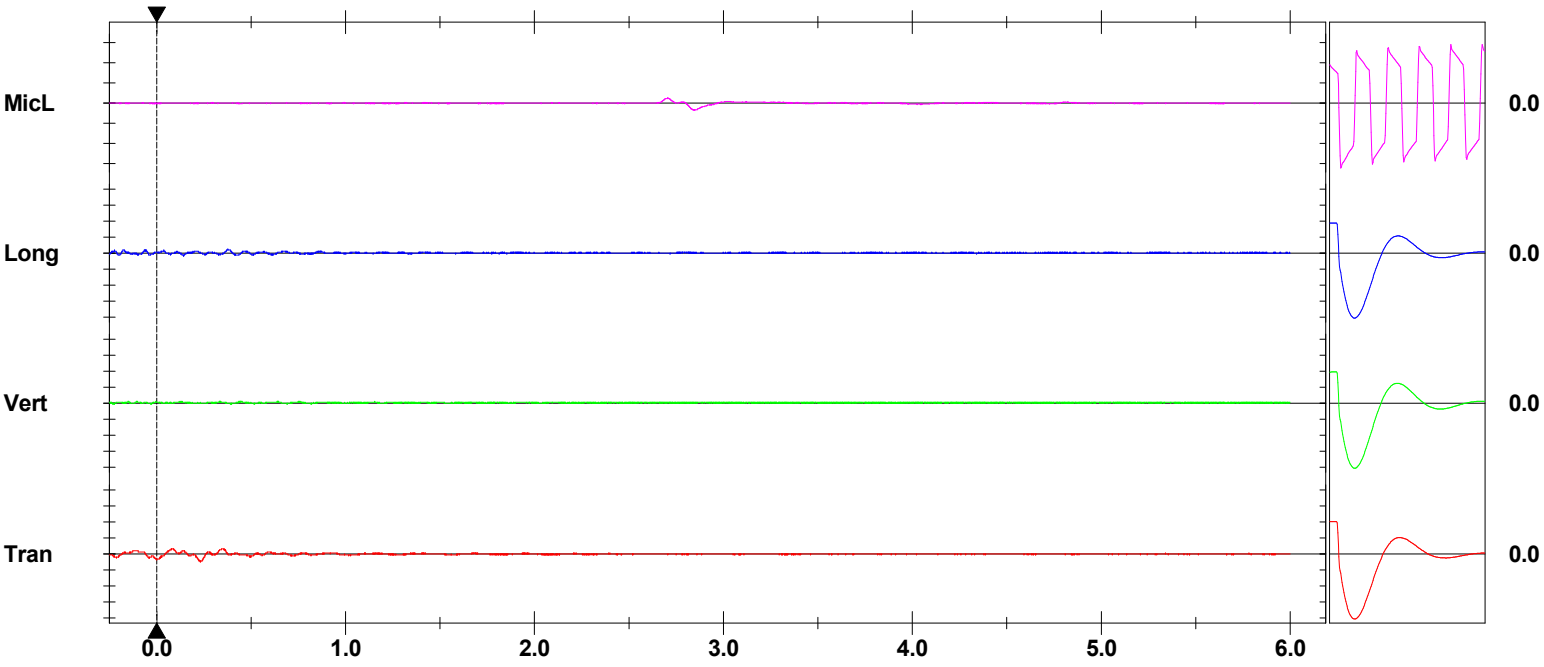
Serial Number BE13456 V 10.72-1.1 Minimate Blaster
Battery Level 6.1 Volts
Unit Calibration May 3, 2018 by Saros (Int)
File Name O456HGOF.ME0
Post Event Notes
NRQA BLA 34 Top Shot
356 - 38 Boorie creek Road
Aaron Burge

Microphone Linear Weighting
PSPL 104.9 dB(L) at 2.841 sec
ZC Freq 3.3 Hz
Channel Test Passed (Freq = 20.1 Hz Amp = 630 mv)

	Tran	Vert	Long	
PPV	1.016	0.254	0.508	mm/s
ZC Freq	9.5	>100	15	Hz
Time (Rel. to Trig)	0.230	-0.151	0.377	sec
Peak Acceleration	0.013	0.013	0.027	g
Peak Displacement	0.019	0.001	0.006	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.1	7.4	7.3	Hz
Overswing Ratio	4.0	3.3	3.8	

Peak Vector Sum 1.032 mm/s at 0.230 sec





Time Scale: 0.50 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div
Trigger = ▶----------◀

Sensor Check

DONNELLY BLASTING SERVICES

BLAST DESIGN AND EVALUATION RECORD

CUSTOMER INFORMATION

Customer	NRQA	Shotfirer	[redacted]
Order No.		Location	BLAKE BROOK.
		BHSID -	BL435
Blast Date	18.7.18		
Blast Type	Production / Develop	Rock Type	BASALT
Blast Time	14:41	Rock Density	2.8

ATTACHMENTS (Initial)

1. Blast Geometry	
2. Explosives Docket	
3. Accessories Docket	
4. Loading Sheet	
5. Initiation Plan	
6. Environmental Report	

Blast Geometry

No. Blastholes	348
No. Wet	348
Blasthole Diameter (mm)	89mm
Bench Height	3.95m
Burden (m)	2.8 m
Spacing (m)	2.8 m.
Stemming (m)	2.3 m
Subdrill (m)	1.0m.
Blast Tonnes (Tn)	30 184.00
Blast Volume (BCM)	10780.00
Survey Blast Volume (BCM)	
Powder Factor (Kg/m^3) Design	
Powder Factor (Kg/m^3) ACTUAL	.39.

Explosives & Accessories

Explosives	Type/Dia	Dens/Ctgs	Mass (kg)
DRY			
WET			
ORICA EMULSION			4260
TOTAL			~~4260~~ 4310.7

Primers	Type	No.	Mass (kg)
Boosters	150g	338	50.7 kg.

Indicators	Delay	Length	Number
Inhole	400m/s	6.1m	338
Inhole			
Inhole			
Inhole			
Surface	9m/s	3.6m	1
Surface	17m/s	3.6m	166
Surface	42m/s	4.9m	7
Surface			

Cord	Type	Length
—	—	—

Environmental Readings

Cloud Cover	0°	M.I.C (kg)	125
Wind (m/S)	11	Direction	NSW
Temperature	24°	Humidity	21%

Location	PPV (mm/S)	AB (dbL)	Dist (m)
464/528	NIMBIN RD		
	MONITOR	NO TRIGGER	
Test			
356/387	BOOYIE CREEK RD.		
Test	MONITOR	NO TRIGGER.	

RESULTS

Fragmentation	Visual Only
Max Dim (m)	% Pass
(<1m)	70%
(1-2)	80%
(>2m)	100%

Comments
Customer 3098

Profile	
Throw (m)	5M
Rockpile Height (m)	
Power Trough	
Width (m)	1m.
Depth (m)	1M
Comments	

Sketch

Overbreak	
Side (m)	2.
Back (m)	1

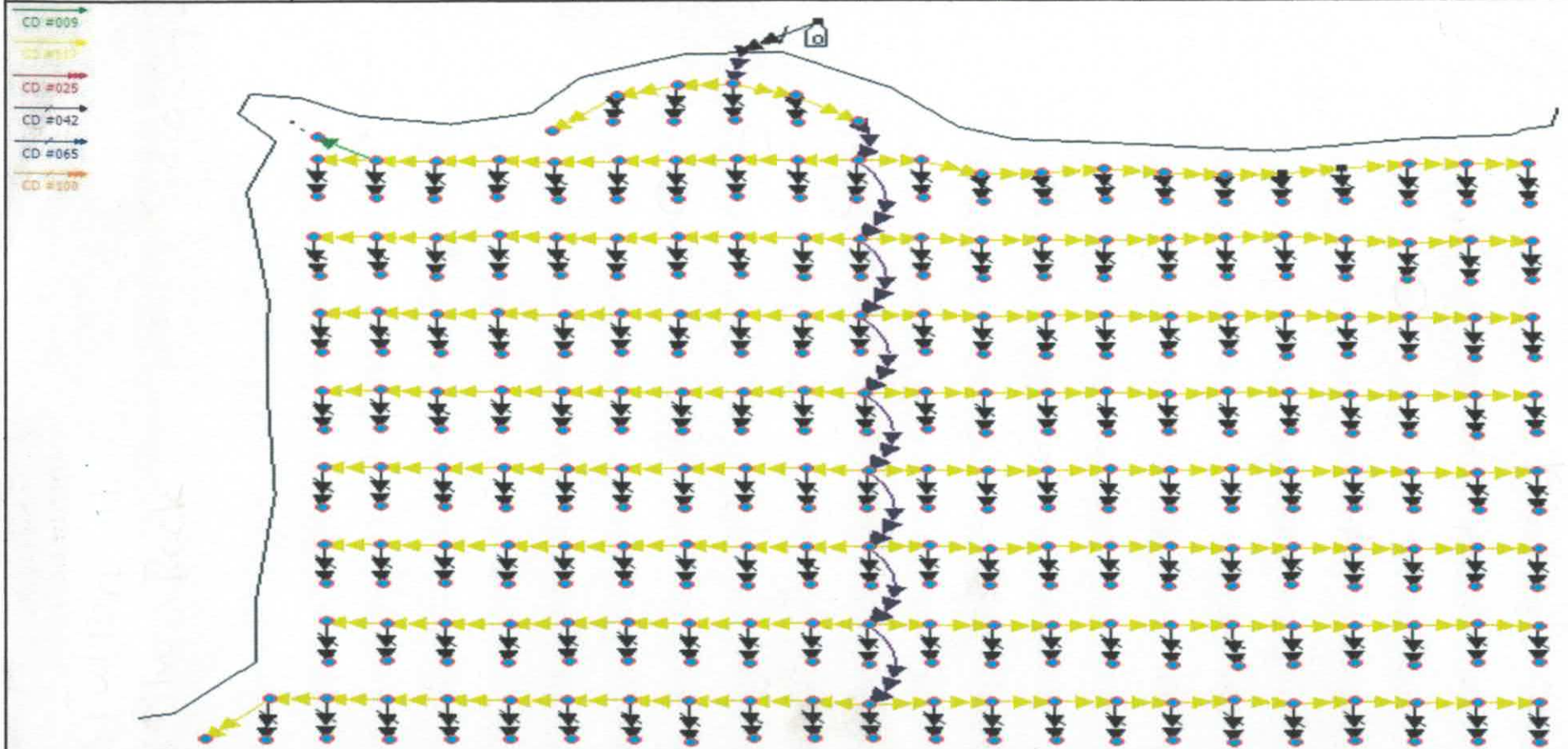
Comments

Comments: Expression of 1 to 2m Over Shot.
TRIGGER level Set to 0.81mm/S

DONNELLY BLASTING SERVICES

29 Kilmore Drive, Tamborine QLD 4270 Mobile: 0407 597 957 Fax: (07) 55438619 ABN 48 141 953 291

BURDEN	2.8	HOLE DEGREE	Vertical	CUSTOMER NAME	NRQA
SPACING	2.8	SUBDRILL	1	LOCATION	Blakebrook
AV DEPTH	3.95	METERS OF CHARGE		SHOT No.	BLA 35
TOTAL No. HOLES	348	METERS OF STEMMING	2.3 m	BENCH No.	Overburden
TOTAL BCM	10780.00	GROUND VIBRATION	NO TRIGGER mm/s	DATE	18/07/2018
ESTIMATED TONNES	30184.00	OVER PRESSURE	NO TRIGGER dB(lin)	WEATHER	FINE
				ROCK DENSITY	2.8
				FRONT ROW BURDEN	2.8
				TOTAL DRILL METERS	1375
				DRILL BIT	89mm



REMARKS: Shot showed expression of at least 1-2m.
TRIGGER level set to 0.81mm/s

CUSTOMER SIGNATURE

SHOTFIRER SIGNATURE

DONNELLY BLASTING SERVICES

EXPLOSIVES TRANSPORT CARTNOTE

EXPLOSIVES EMERGENCY NO. 1300 739 969

DONNELLY BLASTING SERVICES
0407 597 957
29 Kilmore Dr, Tamborine QLD 4207

CARTNOTE NUMBER V2-0908

Pick up Address: DBS yard

Delivery Address: Blakebrook Quarries
Blakebrook

Return Address: DBS yard

Date: 18.7.18

Departure Time: 0445

Delivery Time:

Driver's Name: [redacted]

Vehicle Registration: 193 UDJ

Shot Number: BLA 35

SUPPLIER	GOODS DESCRIPTION	CLASS	UN ID	UNITS	BOXES	USED	BALANCE ON RETURN
ORICA	6.1m 400m/s	1.1B	0360	363	2	338	25
"	9m/s 3.6m.	"	"	5	1	1	4
"	7m/s 3.6m	"	"	360	2	166	194
"	42m/s 4.9	"	"	20		7	13
Hasted	150g Booster	1.1D	0042	384	4	338	46

Driver's Name: [redacted]

Driver's Signature: [redacted]

Licence No. 0700 3[redacted]

Customer Name: [redacted]

Customer Signature: [redacted]

Delivery Docket

Orica Australia Pty Ltd
A.B.N. 99 004 117 828
The Orica logo is a registered Trade Mark

Customer Copy

BMS ☐ DTH ☑

Project No: ..... **BE**
(WBS Element)

Delivery Docket No: 1601484

Purchase Order No: .....

Sold To	DONNELLY'S	Date	18-7-18
MMU (wk centre)	FM070	Shot Number	
Shot Type	QUARRY	Weight Out	27480
Operator/s	CB	Weight In	23220
Time Required	07:10	Weight Deliv.	4260
Time Out Plant	04:50	Time On Site	07:10
Time Off Site	13:40	Time In Plant	

Comments:

Location	Product	Mass Ordered	Mass Deliv.	Mass Agreed
BLAKEHEAD	BLEND	7000	4260	4260
	Total Kgs Truck		4260	4260

Received By:

SHOT PRE LOADING AND FIRING CHECKLIST

Costumer	NRQA.	Shot No.	BLA 35
Location	BLAKE BROOK	Date	18-7-18

This Risk assessment must be completed and signed off by the shotfirer and authorised by the SSE before initiating the shot.

A. PRE-LOADING

What is the Minimum front row burden before hole loading has to be modified? 2.5 m

Is the actual burden along the length of each front hole within the allowable Minimum Burden? **YES / NO**

IF NO: record on Boretrak / Blast Summary loading details and what has been done to control the risk of flyrock and or overpressure.

Have all holes not to be loaded / backfilled been stemmed off prior to commencement to loading? **YES / NO**

IF NO: Record why holes not stemmed off. _____

B. PRE-INITIATION

Were any holes overfilled? **YES / NO**

IF YES, Record for each hole the action taken to reduce the flyrock and Overpressure on the Blast Summary

Has any product Slumping been noticed? **YES / NO** x2 Holes

IF YES, Record for each hole the action taken to reduce the flyrock and Overpressure on the Blast Summary

Has any devations from the Blast plan / Blast Summary been Noted **YES / NO**

IF YES, Record the deviations and their effects on flyrock and overpressure risks on the Blast summary

C. BULK EXPLOSIVES AND POWDER FACTOR RECONCILIATION

	DESIGN	ACTUAL	VARIATION
BULK EXPLOSIVES (kg)			
POWDER FACTOR (kg/BCM)			

Is there a variation from the design? **YES / NO**

IF YES, Record the reason for the variation and is it acceptable.

D. EXCLUSION ZONE FOR FIRING

Is the normal exclusion zone (for equipment and personnel) appropriate for the size, orientation and configuration of the actual blast charged **YES / NO**

IF NO, Specify action to establish an acceptable exclusion zone. _____

Is there any Equipment / Structures left inside the exclusion zone? **YES / NO**

IF YES, Specify what is left inside the exclusion zone. CRUSHING TRAIN IN PIT behind stockpiles

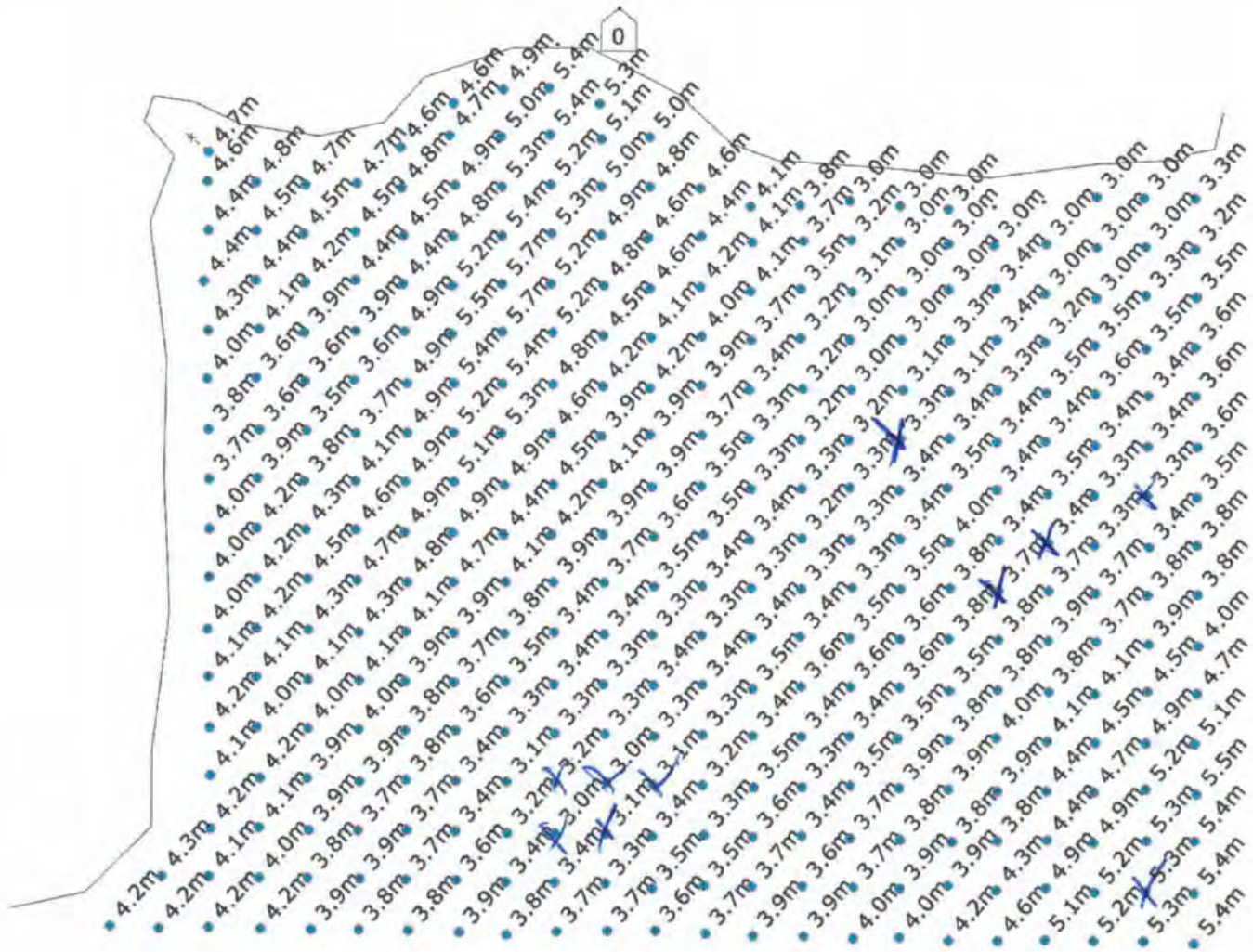
Shotfirer Name: P. Bradford Shotfirer Signature: _____

The SSE authorise the shot to be fired when the exclusion zone is secure and the shotfirer is in a protected position

SSE Name: J [redacted] SSE Signature [redacted]

Shot Record

x Blocked



DONNELLY BLASTING SERVICES

Not to scale

SHOTPlus 5.6.5.6		17/07/2018
Mine	Blakebrook	
Location	Overburden	
Title/author	BLA 35 [redacted]	
Filename	BLA 35.spf	

Avg - 4m

Stem - 2.0m

Max - ~~22.4kg~~ 25kg

0 = BOOSTER ONLY.

DONNELLY BLASTING SERVICES

Not to scale

SHOTPlus 5.6.5.6	17/07/2018
Mine	Blakebrook
Location	Overburden
Title/author	BLA 35 Mike Courtney
Filename	BLA 35.spf

BlakeBrook

Blast Number: BLA 35
Location: Main Pit
Time: 14:41:00 PM
Date: 18/07/2018
Monitor Location: [redacted] Boorie Creek Rd
Weather: Fine

NO TRIGGER REPORT

monitoring conducted by: [redacted]

Geophone Trigger Level: **0.51 mm/s**
Microphone Trigger level: **110 DBL**

NOTES:.... This monitor was approximately from 450m from the Blast. Donnelly blasting services advises that the Blast Viration Was lower than the trigger level of 0.51mm/s and that the blast over pressure was less less than the trigger level of 110 dBL

Instantel Minimate Blaster Serial Number BE13456
next Calibration due 8-May-19

* Monitor log Shows No Event trigger at time of blast

BlakeBrook

Blast Number: BLA 35
Location: Main Pit
Time: 14:41:00 PM
Date: 18/07/2018
Monitor Location: [redacted] Nimbin RD
Weather: Fine

NO TRIGGER REPORT

monitoring conducted by: [redacted]

Geophone Trigger Level: **0.51 mm/s**
Microphone Trigger level: **110 DBL**

NOTES:.... This monitor was approximately from 800m from the Blast. Donnelly blasting services advises that the Blast Viration Was lower than the trigger level of 0.51mm/s and that the blast over pressure was less less than the trigger level of 110 dBL

Instantel Minimate Blaster Serial Number BE13371
next Calibration due 20-Jun-19

* Monitor log Shows No Event trigger at time of blast

BlakeBrook

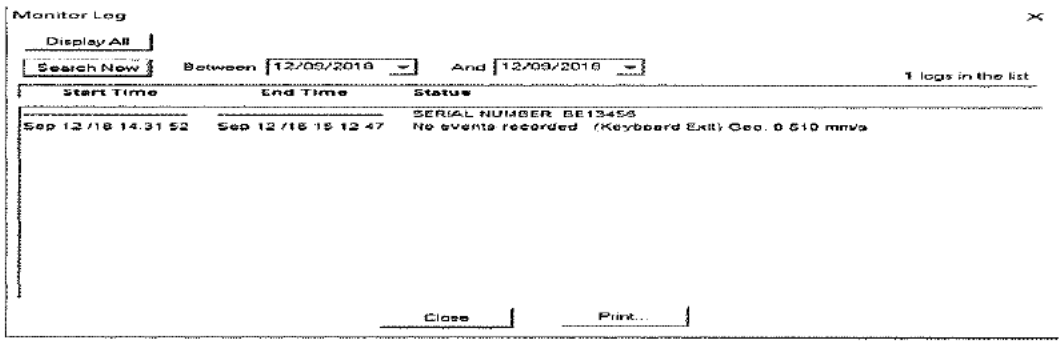
Blast Number: BLA 36
Location: Main Pit
Time: 14.58
Date: 12/09/2018
Monitor Location: [redacted] Boorie Creek Rd
Weather: Fine

NO TRIGGER REPORT

monitoring conducted by: [redacted]

Geophone Trigger Level: 0.51 mm/s
Microphone Trigger level: 110 DBL

NOTES:.... This monitor was approximately from 450m from the Blast. Donnelly blasting services advises that the Blast Viration Was lower than the trigger level of 0.51mm/s and that the blast over pressure was less less than the trigger level of 110 dBL



Instantel Minimate Blaster Serial Number BE13456
next Calibration due 8-May-19

* Monitor log Shows No Event trigger at time of blast

Blakebrook

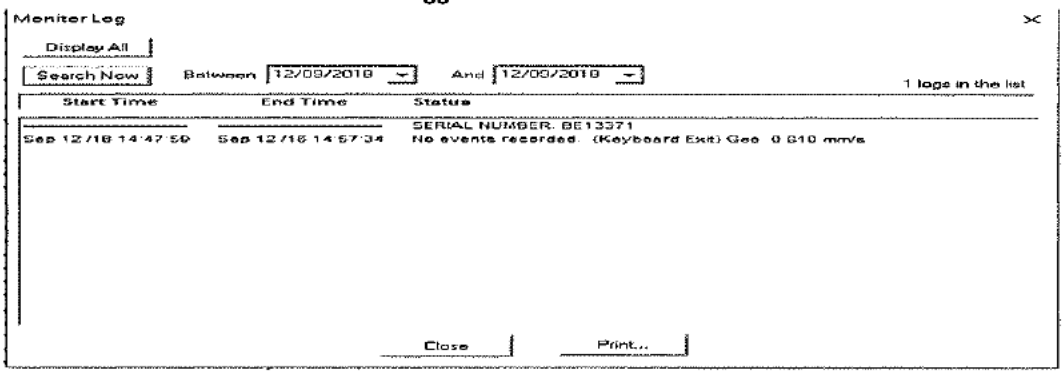
Blast Number: BLA 36
Location: Main Pit
Time: 14.58
Date: 12/09/2018
Monitor Location: [redacted] Nimbin Road
Weather: Fine

NO TRIGGER REPORT

monitoring conducted by: [redacted]

Geophone Trigger Level: **0.51 mm/s**
Microphone Trigger level: **110 DBL**

NOTES:.... This monitor was approximately from 800m from the Blast. Donnelly blasting services advises that the Blast Viration Was lower than the trigger level of 0.51mm/s and that the blast over pressure was less less than the trigger level of 110 dBL



Instantel Minimate Blaster Serial Number BE13371
next Calibration due 20-Jun-19

* Monitor log Shows No Event trigger at time of blast

DONNELLY BLASTING

BLAST DESIGN AND EVALUATION RECORD

CUSTOMER INFORMATION

Customer	NRQA	Shotfirer	[redacted]
Order No.		Location	BLAKEBROOK
		BLAST	BLA 36
Blast Date	12.09.18		
Blast Type	Production	Rock Type	BASALT
Blast Time	14:58	Rock Density	2.8

ATTACHMENTS (Initial)

1. Blast Geometry	
2. Explosives Docket	
3. Accessories Docket	
4. Loading Sheet	
5. Initiation Plan	
6. Environmental Report	

Blast Geometry

No. Blastholes	181
No. Wet	181
Blasthole Diameter (mm)	89mm.
Bench Height	14.46
Burden (m)	2.5
Spacing (m)	2.5
Stemming (m)	2.1 m
Subdrill (m)	1.0m.
Blast Tonnes (Tn)	46 569.03
Blast Volume (BCM)	16 631.80
Survey Blast Volume (BCM)	
Powder Factor (Kg/m^3) Design	
Powder Factor (Kg/m^3) ACTUAL	0.58

Explosives & Accessories

Explosives	Type/Dia	Dens/Ctgs	Mass (kg)
DRY			
WET			
ORICA EMULSION			9680
TOTAL			9716.

Primers	Type	No.	Mass (kg)
Boosters	150g	240	36

Indicators	Delay	Length	Number
Inhole	400m/s	61m	65
Inhole	400m/s	15 m	95
Inhole	400m/s	18 m	80
Inhole			
Surface	17m/s	4.9m	30
Surface	25m/s	4.9m	27
Surface	42m/s	4.9m	129
Surface			

Cord	Type	Length
—	—	—

Environmental Readings

Cloud Cover	0%	M.I.C (kg)	362.
Wind (m/S)	21 Kmh	Direction	ENE
Temperature	27°	Humidity	47%.

Location	PPV (mm/S)	AB (dbL)	Dist (m)
[redacted]	Rd		
	NO TRIGGER		
Test			
[redacted]	Booker Creek Rd		
Test	NO TRIGGER		

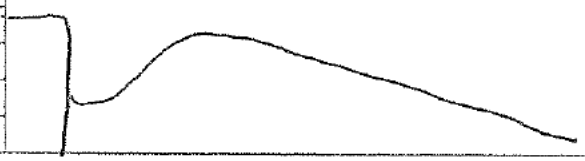
RESULTS

Fragmentation	Visual Only
Max Dim (m)	% Pass
(<1m)	95%
(1-2)	95%
(>2m)	100%

[redacted]

Profile	
Throw (m)	40m.
Rockpile Height (m)	10m
Power Trough	
Width (m)	4.0m
Depth (m)	4.0m
Comments	

Sketch



Overbreak	
Side (m)	1.5m.
Back (m)	2.0m

Comments

Comments
monitor levels set to 0.99mm/s 90dB

SAFETY WORK METHOD STATEMENT (SWMS)
SWMS 05 SHORT TERM DRILLING OPERATIONS

29 Kilmore Drive,
Tamborine, QLD 4270
Jason Donnelly 0407 597 957
ABN 48 141 953 29129

PART A - ADMINISTRATION

Project: BLA 36 **Project Office / Site Address:** Blakebrook Quarry

Project Manager: [redacted] **PH:** 0455 565 757 **Safety Coordinator:** [redacted] **PH:**

SWMS Valid from: May 2018 **SWMS Valid to:** December 2018 **Location / Area of Works** Bench 1 PIT - MAIN

Name & No. of SWMS: SWMS 05 SHORT TERM DRILLING OPERATIONS

Description of SWMS 1. *The Transportation of Drilling Equipment* 2. *Pre-Start Activities* 3. *Undertaking of Selected Drilling Activities* 4. *Environmental Protection*

Date Compiled: October 2017 **Revision No:** 4 **Compiled by:** [redacted]

SWMS authorised for use by Donnelly Blasting Services Pty Ltd Representative:

Name: [redacted] **Position:** Director / Supervisor **Date:** October 2017

High Risk Construction Work *as stated in WH&S Regulations 2011 (Sect 291)*

Activity	Yes	Activity	Yes	Activity	Yes
Work carried out in, on, or near excavations.	✓	Work carried out in, on, or near roads, railways or shipping lanes, and traffic.	✓	Work carried out in, on, or near energised electrical installations or services.	✓
Work carried out in, on, or near Powered Moving Plant.	✓	Work carried out in, on, or near water or other liquid that involves a risk of drowning.		Work carried out in, on, or near a confined space.	
Work carried out in, on, or near pressurised gas distribution mains or piping.		Work carried out in, on, or near an area that may have a contaminated or flammable atmosphere.		Work carried out in, on, or near areas where there are artificial extremes of temperature.	
Work carried out in, on, or near chemical, fuel or refrigerant lines.		Working at Heights.		Working near heavy lifting activities.	
High risk construction work involving asbestos, explosives or diving work.		Working in Remote Locations.	✓		

Submit to Client / Nominate for review where specified in contract:

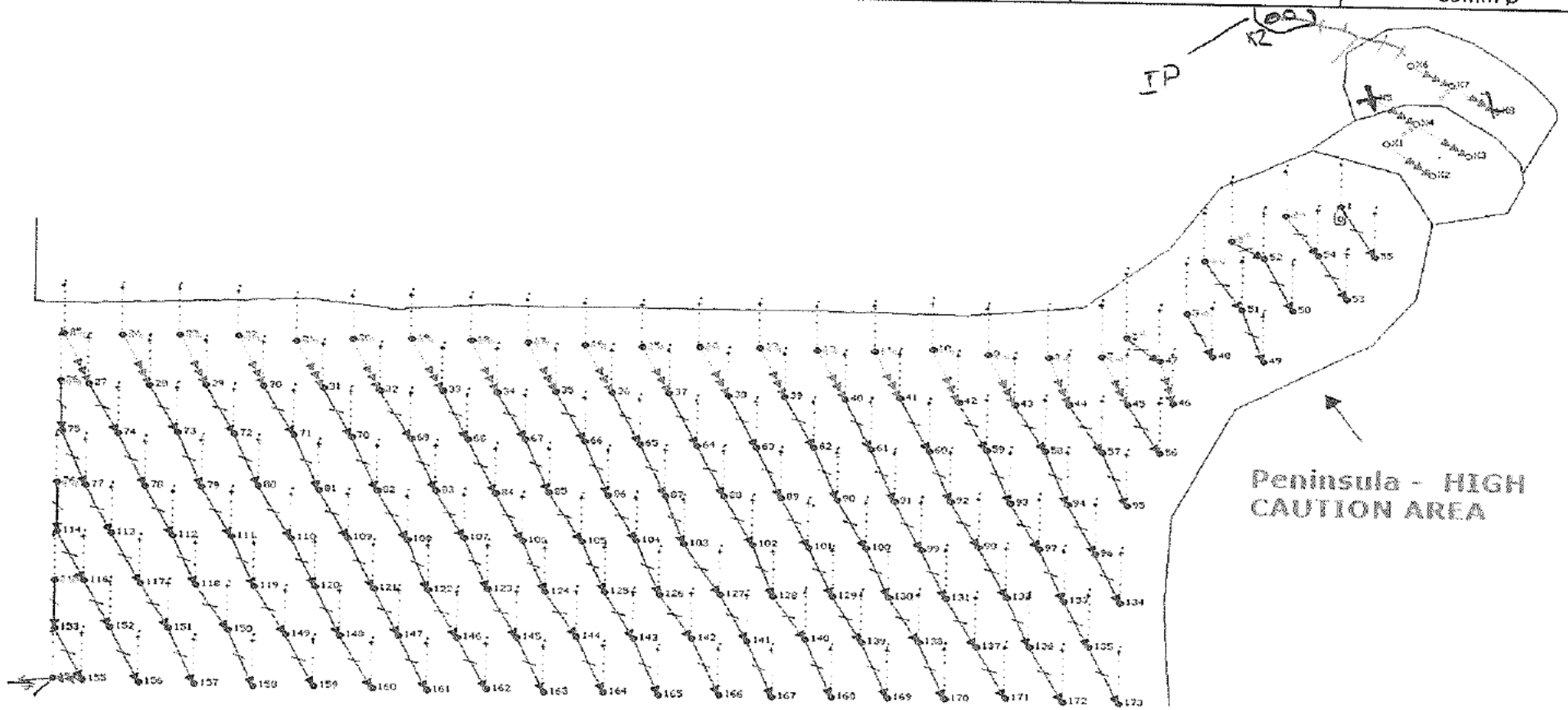
☐ **Rejected, must resubmit:** **Name:** **Position:** **Signature:** **Date:**

☐ **Accepted, with comments:** **Name:** **Position:** **Signature:** **Date:**

☑ **Accepted:** **Name:** [redacted] **Position:** QUARRY MANAGER **Signature:** [redacted] **Date:** 12-9-2018

29 Kilmore Drive, Tamborine QLD 4270 Mobile: 0407 597 957 Fax: (07) 55438619 ABN 48 141 953 291

BURDEN	2.5	HOLE DEGREE	10°	CUSTOMER NAME	NRQA
SPACING	2.5	SUBDRILL	1.0m	LOCATION	Blakebrook
AV DEPTH	14.46 ~~12.55~~	METERS OF CHARGE	—	SHOT No.	BLA 36
TOTAL No. HOLES	181 ~~181~~	METERS OF STEMMING	2.1 m	BENCH No.	Main Pit
TOTAL BCM	16631.30 ~~14435.36~~	GROUND VIBRATION	NO TRIGGER mm/s	DATE	12/09/2018
ESTIMATED TONNES	46509.03 ~~40419.01~~	OVER PRESSURE	NO TRIGGER dB(lin)	WEATHER	Fine
				ROCK DENSITY	2.8
				FRONT ROW BURDEN	2.8
				TOTAL DRILL METERS	~~2272~~ 2617.7
				DRILL BIT	89mm Ø

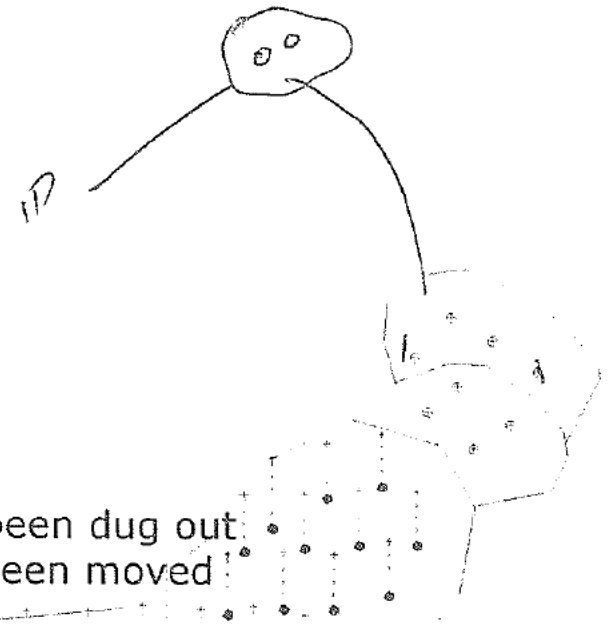


REMARKS:

Better vehicle access required at the rear of the shot.

SHOTFIRER	
SHOTFIRER SIGNATURE	[redacted]
CUSTOMER SIGNATURE	

Shot Record Sheet



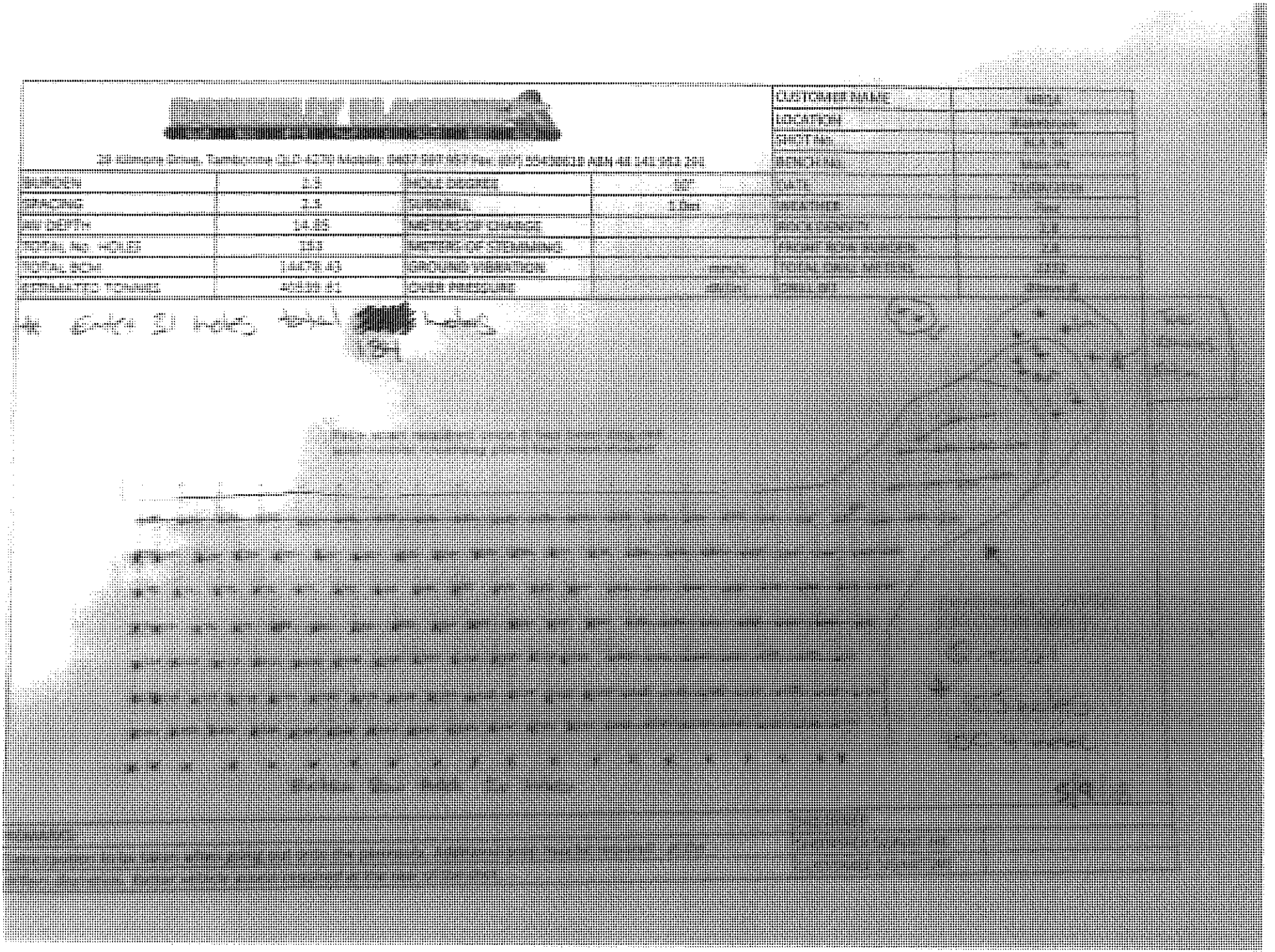
3m 4m 3m

Face scan required once it has been dug out and mobile crushing plant has been moved

Peninsula - HIGH CAUTION AREA

Not to scale

SHOTPlus™ Premier 5.7.3.0	11/09/2018
Mine	Blakebrook
Location	Main Pit
Title/author	BLA 36 [redacted]
Filename	BLA 36.spf



SHOT PRE LOADING AND FIRING CHECKLIST

Costumer	NRQR	Shot No.	BLA 36
Location	Blake Brook	Date	12.9.18

This Risk assessment must be completed and signed off by the shotfirer and authorised by the SSE before initiating the shot.

A. PRE-LOADING

What is the Minimum front row burden before hole loading has to be modified? 2.5 m

Is the actual burden along the length of each front hole within the allowable Minimum Burden (YES) / NO

IF NO: record on Boretrak / Blast Summary loading details and what has been done to control the risk of flyrock and or overpressure.

Have all holes not to be loaded / backfilled been stemmed off prior to commencement to loading? (YES) / NO

IF NO: Record why holes not stemmed off. _____

B. PRE-INITIATION

Were any holes overfilled? YES (NO)

IF YES, Record for each hole the action taken to reduce the flyrock and Overpressure on the Blast Summary

Has any product Slumping been noticed? YES (NO)

IF YES, Record for each hole the action taken to reduce the flyrock and Overpressure on the Blast Summary

Has any devations from the Blast plan / Blast Summary been Noted (YES) / NO

IF YES, Record the deviations and their effects on flyrock and overpressure risks on the Blast summary

C. BULK EXPLOSIVES AND POWDER FACTOR RECONCILIATION

	DESIGN	ACTUAL	VARIATION
BULK EXPLOSIVES (kg)	9600	9716	
POWDER FACTOR (kg/BCM)	—	0.58	

Is there a variation from the design? (YES) / NO lost Holes

IF YES, Record the reason for the variation and is it acceptable.

D. EXCLUSION ZONE FOR FIRING

Is the normal exclusion zone (for equipment and personnel) appropriate for the size, orientation and configuration of the actual blast charged (YES) / NO

IF NO, Specify action to establish an acceptable exclusion zone. _____

Is there any Equipment / Structures left inside the exclusion zone? (YES) / NO

IF YES, Specify what is left inside the exclusion zone. Infront of Blast Behind Stockpiles Fixed shed + Container Beside Blast

Shotfirer Name: [redacted] Shotfirer Signature: [redacted]

The SSE authorise the shot to be fired when the exclusion zone is secure and the shotfirer is in a protected position

SSE Name: [redacted] SSE Signature [redacted]

RESULTS OF DUST MONITORING (Page 1 of 1)

3 dust samples supplied by Lismore City Council on the 16th January, 2018 - Lab Job No. G6539

Exposure Period 18/12/17 - 15/1/18

Analysis requested by [redacted].

PO Box 23a LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids Total Suspended Solids (SSt)		Deposit rate of:			
						(g/m^2/month)	(mg/m^2/day)	Ash (g/m^2/month)	Combustible Matter (g/m^2/month)	Soluble Matter (g/m^2/month)	Total Solids (g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-0010,D1	*G6539/1*	..	150	28	3.400	1.2	41	0.4	0.8	2.0	3.2
S18-0010,D2	*G6539/2*	..	150	28	2.600	0.5	18	0.1	0.4	2.7	3.2
S18-0010,D3	*G6539/3*	yellowish	150	28	2.200	1.2	39	0.7	0.5	4.3	5.5

METHODS REFERENCE

a. Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.

Laboratory Manager

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

RESULTS OF DUST MONITORING (Page 1 of 1)

3 dust samples supplied by Lismore City Council on the 14th February, 2018 - Lab Job No. G7411

Exposure Period 15/01/18 - 12/02/18

Analysis requested by [redacted]

PO Box 23a LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids Total Suspended Solids (SSt)		Deposit rate of: Ash	Combustible Matter	Soluble Matter	Total Solids
						(g/m^2/month)	(mg/m^2/day)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-0044 D1	*G7411/1*	brown/org. matter	150	28	1.000	4.0	133	1.5	2.5	2.0	6.0
S18-0044 D2	*G7411/2*	cloudy/org. matter	150	28	0.800	1.6	53	0.7	0.8	2.6	4.2
S18-0044 D3	*G7411/3*	cloudy/org. matter	150	28	0.720	3.4	115	1.1	2.3	3.5	7.0

METHODS REFERENCE

a. Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

check [redacted].
[redacted]
Laboratory Manager

RESULTS OF DUST MONITORING (Page 1 of 1)

3 dust samples supplied by Lismore City Council on the 14th March, 2018 - Lab Job No. G8364

Exposure Period 12/02/18 - 12/03/18

Analysis requested by [redacted].

PO Box 23a LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids Total Suspended Solids (SSt)		Deposit rate of:			
						(g/m^2/month)	(mg/m^2/day)	Ash (g/m^2/month)	Combustible Matter (g/m^2/month)	Soluble Matter (g/m^2/month)	Total Solids (g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-0082, D1	*G8364/1*	insects/org. matter	150	28	3.510	2.4	79	1.5	0.9	2.5	4.9
S18-0082, D2	*G8364/2*	cloudy/org. matter	150	28	3.270	6.7	223	1.1	5.6	4.1	10.8
S18-0082, D3	*G8364/3*	cloudy/org. matter	150	28	3.190	7.5	249	1.4	6.1	11.1	18.6

METHODS REFERENCE

a. Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.

checked: [redacted].
[redacted]
Laboratory Manager

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

RESULTS OF DUST MONITORING (Page 1 of 1)

3 dust samples supplied by Lismore City Council on the 11th April, 2018 - Lab Job No. G9246

Exposure Period 12/3/18 - 9/4/18

Analysis requested by [redacted]

PO Box 23A LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids Total Suspended Solids (SSt)		Deposit rate of:			
						(g/m^2/month)	(mg/m^2/day)	Ash (g/m^2/month)	Combustible Matter (g/m^2/month)	Soluble Matter (g/m^2/month)	Total Solids (g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-0104.D1	*G9246/1*	..	150	28	1.420	0.9	31	0.1	0.8	1.6	2.5
S18-0104.D2	*G9246/2*	..	150	28	1.500	0.5	18	0.0	0.5	1.7	2.2
S18-0104.D3	*G9246/3*	green/org. matter	150	28	1.490	4.8	159	0.8	4.0	12.4	17.2

METHODS REFERENCE

a. Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.

check [redacted]

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

RESULTS OF DUST MONITORING (Page 1 of 1)

3 dust samples supplied by Lismore City Council on the 8th May, 2018 - Lab Job No. H0066

Exposure Period 9/4/18 - 7/5/18

Analysis requested by [redacted]

PO Box 23A LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids Total Suspended Solids (SSt)		Deposit rate of:			
						(g/m^2/month)	(mg/m^2/day)	Ash (g/m^2/month)	Combustible Matter (g/m^2/month)	Soluble Matter (g/m^2/month)	Total Solids (g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-0142,D1	*H0066/1*	leaves/some org. matter	150	28	0.670	0.5	16	0.3	0.2	1.0	1.5
S18-0142,D2	*H0066/2*	..	150	28	0.690	0.4	14	0.3	0.1	1.1	1.5
S18-0142,D3	*H0066/3*	cloudy	150	28	0.660	1.5	51	0.5	1.0	1.4	3.0

METHODS REFERENCE

a . Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

[redacted]
Laboratory Manager

RESULTS OF DUST MONITORING (Page 1 of 1)

3 dust samples supplied by Lismore City Council on the 5th June, 2018 - Lab Job No. H1100

Exposure Period 7/5/18 - 4/6/18

Analysis requested by [redacted].

PO Box 23a LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids Total Suspended Solids (SSt)		Deposit rate of: Ash	Combustible Matter	Soluble Matter	Total Solids
						(g/m^2/month)	(mg/m^2/day)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-0177.D1	*H1100/1*	Organic matter	150	28	0.22	0.6	21	0.5	0.2	0.7	1.3
S18-0177.D2	*H1100/2*	Brown/ organic matter	150	28	0.15	0.8	27	0.3	0.5	0.0	0.8
S18-0177.D3	*H1100/3*	Cloudy/ organic matter	150	28	0.15	0.3	12	0.1	0.2	0.3	0.6

METHODS REFERENCE

a . Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.

[redacted]

checked: .....

[redacted]

Laboratory Manager

RESULTS OF DUST MONITORING (Page 1 of 1)

3 dust samples supplied by Lismore City Council on the 3rd July, 2018 - Lab Job No. H2000

Exposure Period 04/06/18 - 02/07/18

Analysis requested by [redacted].

PO Box 23a LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids Total Suspended Solids (SSt)		Deposit rate of: Ash	Combustible Matter	Soluble Matter	Total Solids
						(g/m^2/month)	(mg/m^2/day)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-233, D1	*H2000/1*	org. matter	150	28	0.57	2.1	69	1.1	0.9	0.0	2.1
S18-233, D2	*H2000/2*	..	150	28	0.41	0.6	18	0.1	0.5	0.0	0.6
S18-233, D3	*H2000/3*	yellowish/org. matter	150	28	0.40	4.3	144	1.0	3.3	2.1	6.4

METHODS REFERENCE

a . Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.

[redacted]

checked: .....

[redacted]

Laboratory Manager

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

RESULTS OF DUST MONITORING (Page 1 of 1)

3 dust samples supplied by Lismore City Council on the 1st August, 2018 - Lab Job No. H2732

Exposure Period 2/7/18 - 30/7/18

Analysis requested by [redacted].

PO Box 23a LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids Total Suspended Solids (SSt)		Deposit rate of: Ash	Combustible Matter	Soluble Matter	Total Solids
						(g/m^2/month)	(mg/m^2/day)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-0286, D1	*H2732/1*	Organic matter	150	28	0.280	0.4	15	0.3	0.2	1.9	2.4
S18-0286, D2	*H2732/2*	Cloudy / organic matter	150	28	0.070	2.5	84	1.6	1.0	3.1	5.6
S18-0286, D3	*H2732/3*	Cloudy / organic matter	150	28	0.080	2.5	83	1.3	1.2	2.5	5.0

METHODS REFERENCE

a. Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

RESULTS OF DUST MONITORING (Page 1 of 1)

3 samples supplied by Lismore City Council on 28th August, 2018. Lab Job No.H3528

Exposure Period 30/07/18 - 27/08/18

Samples submitted by [redacted] Job: PO 0132

PO Box 23a LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids Total Suspended Solids (SSt)		Deposit rate of: Ash	Combustible Matter	Soluble Matter	Total Solids
						(g/m^2/month)	(mg/m^2/day)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-0319 D1	*H3528/1*	org. matter	150	28	0.130	0.7	25	0.6	0.2	0.5	1.2
S18-0319 D2	*H3528/2*	org. matter/cloudy	150	28	0.430	0.3	10	0.0	0.3	0.6	1.0
S18-0319 D3	*H3528/3*	org. matter/cloudy	150	28	0.370	1.7	57	1.3	0.4	1.6	3.3

METHODS REFERENCE

a . Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.

checked: .....

[redacted]

Laboratory Manager

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

RESULTS OF DUST MONITORING (Page 1 of 1)

3 samples supplied by Lismore City Council on 24th September, 2018. Lab Job No.H4290

Exposure Period: [redacted]

Samples submitted by [redacted]. Your Job: Blakebrook Quarry

PO Box 23a LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids Total Suspended Solids (SSt)		Deposit rate of: Ash	Combustible Matter	Soluble Matter	Total Solids
						(g/m^2/month)	(mg/m^2/day)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-0348, D1	*H4290/1*	leaf/org. matter/yellow	150	28	0.670	0.5	18	0.2	0.3	1.3	1.8
S18-0348, D2	*H4290/2*	cloudy/org. matter	150	28	0.530	1.0	33	0.6	0.4	1.1	2.1
S18-0348, D3	*H4290/3*	cloudy/org. matter	150	28	0.580	2.2	74	1.1	1.1	2.0	4.2

METHODS REFERENCE

a . Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.
10. All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions.

These Terms and Conditions are available on the EAL website: scu.edu.au/eal, or on request.

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

Laboratory Manager

RESULTS OF DUST MONITORING (Page 1 of 1)

3 samples supplied by Lismore City Council on 22nd October, 2018. Lab Job No.H5103

Exposure Period: 24/09/18 - 22/10/18

Samples submitted by [redacted]. Your Job: PO 07108

PO Box 23a LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids: Total Suspended Solids (SSt) (g/m^2/month)	Deposit rate of Insoluble Solids: Total Suspended Solids (SSt) (mg/m^2/day)	Deposit rate of: Ash (g/m^2/month)	Deposit rate of: Combustible Matter (g/m^2/month)	Deposit rate of: Soluble Matter (g/m^2/month)	Deposit rate of: Total Solids (g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-0367, D1	*H5103/1*	org. matter	150	28	4.500	1.6	52	0.8	0.8	3.4	4.9
S18-0367, D2	*H5103/2*	yellowish/org. matter	150	28	3.100	5.4	180	1.3	4.1	11.0	16.4
S18-0367, D3	*H5103/3*	org. matter	150	28	2.950	1.0	34	0.1	0.9	2.8	3.8

METHODS REFERENCE

a . Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.
4. All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (refer scu.edu.au/eal or on request).

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

checked: .....

[redacted]

Laboratory Manager

RESULTS OF DUST MONITORING (Page 1 of 1)

3 samples supplied by Lismore City Council on 20th November, 2018. Lab Job No.H6052

Exposure Period: 22/10/18 - 19/11/18

Samples submitted by [redacted] Your Job: PO 07123

PO Box 23a LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids Total Suspended Solids (SSt)		Deposit rate of: Ash	Combustible Matter	Soluble Matter	Total Solids
						(g/m^2/month)	(mg/m^2/day)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-0402,D1	*H6052/1*	cloudy/org. matter/bugs	150	28	0.470	2.2	73	1.3	0.9	0.4	2.6
S18-0402,D2	*H6052/2*	cloudy/org. matter	150	28	0.490	8.2	275	2.7	5.5	6.6	14.8
S18-0402,D3	*H6052/3*	org. matter	150	28	0.230	0.6	22	0.2	0.5	2.1	2.8

METHODS REFERENCE

a. Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.
4. All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (refer scu.edu.au/eal or on request).

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

[redacted]
Laboratory Manager

RESULTS OF DUST MONITORING (Page 1 of 1)

3 samples supplied by Lismore City Council on 18th December, 2018. Lab Job No.H7050

Exposure Period: 19/11/18 - 17/12/18. Your Project: Blakebrook Quarry

Samples submitted by [redacted]. Your Job: PO 07138

PO Box 23a LISMORE NSW 2480

Sample Site	EAL Code	Sample Comments	Diameter of Funnel (mm)	Sampling Days (days)	Sample Volume (L)	Deposit rate of Insoluble Solids Total Suspended Solids (SSt)		Deposit rate of: Ash	Combustible Matter	Soluble Matter	Total Solids
						(g/m^2/month)	(mg/m^2/day)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)	(g/m^2/month)
Method Reference						*a*	*a*	*a*	*a*	*a*	*a*
S18-0429, D1	*H7050/1*	brown, org. matter	150	28	0.190	1.0	34	0.4	0.6	0.4	1.4
S18-0429, D2	*H7050/2*	brown, org. matter	150	28	0.033	2.1	71	0.6	1.6	1.5	3.6
S18-0429, D3	*H7050/3*	brown, org. matter	150	28	0.020	1.4	46	0.4	1.0	0.9	2.3

METHODS REFERENCE

a. Australian Standard AS 3580.10.1.8.2.2-1991(1mm pre-sieving then using Whatman 42 Ashless filter)

NOTES

1. .. No data/ information
2. Total Suspended Solids = Mass deposition rate of insoluble solids
3. Per Month calculations incorporate 'Sampling Days' hence per Month actually refers to number of days sampled.
4. All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (refer scu.edu.au/eal or on request).

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

checked: .....

[redacted]

Laboratory Manager

ERM

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www.erm.com

21 December 2018

Environmental Assessment Officer
Department of Planning and Environment
GPO Box 39
Sydney, NSW 2001

Reference: 0436796

Attention: [redacted]

Dear [redacted],

RE: Air Quality Monitoring Results for the Blakebrook Quarry

Lismore City Council ('**Council**') operates the Blakebrook Quarry. As part of the quarry's operational management, an Air Quality Management Plan (**AQMP**) was developed and submitted for approval to the Department of Planning and Environment (**DPE**).

The DPE requested that High Volume Air Sampling (**HVAS**) be performed to understand the current conditions of inhalable particulate (PM_{10}) concentrations. Specifically, the DPE requested:

- One 24-hour sample from 7am to 7am.
- Sampling to occur when the quarry is operating at full capacity.
- Monitoring locations to be at nearby privately owned land.

Council engaged Ecotech Pty Ltd to undertake the HVAS monitoring. Ecotech Pty Ltd is National Association of Testing Authorities Australia (**NATA**) accredited for HVAS sampling (accreditation No. 14184).

The monitoring occurred at [redacted] Nimbin Road, Booerie Creek NSW 2480 from 11 to 13 November 2018. The Tuesday and Wednesday were chosen as these are the days during the week where the quarry has the highest operational activity.

The monitoring occurred over three days as the first 24 hour period prematurely ended due to a power failure. A second 24-hour sample was started the next day after the power situation was resolved. The monitoring data formal report and field sheets are provided are attached to this letter.

The results from the two sampling days are provided in the **Table 1**.

Table 1: Sampling Results

Start Date	Sampling Time	PM_{10} Average Concentration	PM_{10} 24 hour average Standard	Notes
11/11/2018	7am to 12am	17.4 µg/m³	50 µg/m³	Less than 24 hours sampled, provides a conservative comparison to the standard.
11/12/2018	11am to 11am	14.4 µg/m³	50 µg/m³	Delay in start time due to sorting out the power problem.

The HVAS results indicate that the air quality is well below the ambient standards. No additional monitoring should be required.

Please contact me if you have any questions regarding the contents of this letter.

Sincerely,

[redacted]

[redacted]
Partner
CAQP

Registered office
ERM Australia Pty Ltd
Level 15 309 Kent Street
Sydney NSW 2000

ABN: 12 002 773 248

Offices worldwide

A member of the
ERM Group

Ecotech
ACOEM Group

45 Horus Bend
Bibra Lake WA 6163

Accredited for compliance with ISO/IEC 17025-Testing
Accreditation No. 19650

REPORT OF ANALYSIS D-258

Environmental Resources Management
[redacted] Nimbin Road, Booerie Creek
NSW 2480

Attention: Environmental Resources Management

Report of analysis of two high volume PM10 PTFE filters received on 22 November 2018.

Sample description:

Client Reference	Filter Ref number	Condition of filter on receipt
Lismore Council Quarry Monitoring	E-779	Good
	E-780	Good

Results of analysis:

Filter Reference Number	Start Date	[1]Air Volume m^3	Initial Weight of Filter mg	Final Weigh of Filter mg	Dust mg/filter	Dust in Air $\mu g/m^3$
[1]E-779	13/11/2018	1070	2397.2	2415.8	18.6	17.4
E-780	14/11/2018	1505	2394.3	2415.9	21.6	14.4

Test Parameters:

Analyte	Units	Limit of Reporting	Method	Uncertainty
Dust concentration	$\mu g/m^3$	5 $\mu g/m^3$	AS3580.9.6:2015	11% of reading or ±0.70 $\mu g/m^3$, whichever is the greater. K factor of 1.96

These results apply only to the samples as received.
High volume sampler calibrated by Ecotech calibration laboratory, accreditation No. 14184
Calibration certificate attached.
[1]A run time of 17 hours recorded.

This report shall not be reproduced except in full.

[redacted]

Laboratory Manager
Ecotech WA Laboratory

Date of issue: 27/11/2018
End report.

Ecotech

ACOEM Group

High Volume Air Sampler 3000 Volumetric Calibration Report

Ecotech Document Control
Doc. ID: EMS 0578
Date: 23/05/2018

This form is based upon the requirements of AS/NZS 3580.9.6:2015 and AS/NZS 3580.9.14:2013

Note:

Filter paper id: E-779

Customer	Lismore Council
Instrument	HiVol3000
ID No.	06-1081
System/Job No.	MCQLD

Calibration Performed By	[redacted]	
Date	12-Nov-18	
Time Begin/End	13:30	14:00
Location	Site	

Calibration Equipment

Orifice Plate	TE-040
Volumetric Orifice Const.	3.21

	TE Number	Cal Due	PASS / FAIL
Manometer	TE-0574	29/2/19	PASS
Digital Barometer	TE-0645	23/04/2019	PASS
Digital Thermometer	TE-0645	23/04/2019	PASS

Instrument Parameters - Hidden Menu (Pre-calibration)

Flow Coeff 0		35.1650
Flow Coeff 1		86.7040
Flow Coeff 2		-35.6500
Temp Coeff 0	0.3810	0.3810
Temp Coeff 1	-2 to +2	0.0177
Temp Coeff 2	-2 to +2	0.0007

Press Coeff 0	50 to 100	93.2
Press Coeff 1	168.7	168.7
WS Coeff 0		0.0
WS Coeff 1		0.8
WD Coeff 0		0.0
WD Coeff 1		79.1

Instrument Parameters - Setup Menu (Pre-calibration)

Set Flow	67.8
Ref Temp (°C)	0.0

Ref BP (mmHg)	760.0
S/W Version	2.18

Pre-calibration Check

	Reference Sensor			Instrument	Difference	Units	Pass / Fail
Ambient Temp	27.9			30.5	-2.6	°C	Calibrate
Ambient Press	760	mmHg	760.0	752.4	7.6	mmHg	Calibrate

Note: Temperature shall be ± 1 degC of reference

Note: Pressure shall be ± 7.5 mmHg of reference

If the temperature or pressure sensors require re-calibration, perform the flow check and then adjust the coefficients

Flow Calibration Check:

	mmH2O	kPa
Expected (Calculated) ΔH	150.2	1.47

Hour Run Meter Initial	0
Start Time	13:45

	Display Reading (m3/hr)	Manometer Reading (kPa)	Calculated Flow (m3/hr)	Error (%)	PASS / FAIL
Actual Sample Flow Rate (blank filter fitted)	67.8	1.4	66.1	-2.5%	PASS

Note: Pre-calibration check shall be within 10% of expected value

Temperature and Pressure Calibration

Calibration Required	REQUIRED

New Calculated Coefficients	Coefficient 0	Coefficient 1	Coefficient 2
Temperature	Do Not Adjust	0.0193	0.0008
Pressure	100.743	Do Not Adjust	N/A

Apply new coefficients and re-test.

	Reference Sensor			Instrument	Difference	Units	Pass / Fail
Ambient Temp	27.8			27.9	-0.1	°C	PASS
Ambient Press	760	mmHg	760.0	759.9	0.1	mmHg	PASS

Flow Calibration

	Initial ΔH (kPa)	Expected ΔH (kPa)	Final ΔH (kPa)	Sensor Voltage (V)
Calibration Point 1 (60 m3/hr)	1.2	1.2	1.2	0.3320
Calibration Point 2 (70 m3/hr)	1.61	1.6	1.6	0.5105
Calibration Point 3 (80 m3/hr)	2.09	2.1	2.1	0.7616

Post-calibration Check

	Display Reading (m3/hr)	Manometer Reading (kPa)	Calculated Flow (m3/hr)	Error (%)	PASS / FAIL
Actual Sample Flow Rate (blank filter fitted)	67.8	1.5	68.4	0.9%	PASS

Note: Post-calibration check shall be within 1% of expected value

Hour Run Meter Final	
Finish Time	

Instrument Parameters - Hidden Menu (Post-calibration)

Flow Coeff 0		34.3000
Flow Coeff 1		90.8480
Flow Coeff 2		-40.5000
Temp Coeff 0	0.3810	0.3810
Temp Coeff 1	-2 to +2	0.0193
Temp Coeff 2	-2 to +2	0.0008

Press Coeff 0	50 to 100	100.7
Press Coeff 1	168.7	168.7
WS Coeff 0		0.0
WS Coeff 1		0.8
WD Coeff 0		0.0
WD Coeff 1		79.1

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Hi Volume Air Sampler Filter Papers Sampling Record Form

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environmental monitoring solutions

Ecotech Document Control
EMS 0311
Date 23/03/2015

Customer Name: ERM (ENVIRONMENTAL RESOURCES MANAGEMENT)

Project Name: LISMORE COUNCIL QUARRY MONITORING

Location (site name): [redacted] NIMBIN ROAD, BOOERFE CRK NSW 2480

Sampling Head Type (TSP / PM_{10} / $PM_{2.5}$): PM10.

* RAN TO MIDNIGHT
* RAN TO 11:00 (24 HR SAMPLE)

Sampling Record

Notes: If filters are damaged or if filters are removed from cassette on site – please also fill in table on reverse

Sampled filters must be collected within 3 days of the sample period. The period between sampling and final weighing must not exceed 20 days (or 30 days at <4°C).

Filter ID	Installed /Removed (dates)	Installed /Removed (times)	Installed /Removed by	Weather Conditions	Filter Run Start/End Date [dd/mm/yy]	Initial / Final Run Time†	Initial / Final Flow [m³/hr]*	Total Volume [m³] (HV-3000 only)	Corrected Volume [m³] (HV-3000 only)	Filter Colour
F-799 (F-779)	12/11/18	14:30	MW	FINE	13/11/18	07:00	67.8	1151.2	1070.5	✓
	14/11/18	07:30	MW	FINE	14/11/18	*RUN TIME: 1019 MIN	11			
F-780	14/11/18	10:50	MW	FINE	14/11/18	11:00	67.8	1623	1505.1	✓
	15/11/18	11:00	MW	FINE	15/11/18	*RUN TIME: 1430 MIN	11			

*For Hi-Vol3000 Initial Flow and Final Flow are the set Flow †For Hi-Vol3000 Initial and Final run time are the Initial and Final Set Times

PROJECT

SITE WATER BALANCE
BLAKEBROOK QUARRY
BLAKEBROOK
NEW SOUTH WALES

PREPARED FOR

LISMORE CITY COUNCIL

DATE

FEBRUARY 2019

GILBERT SUTHERLAND

DOCUMENT CONTROL

DOCUMENT 11737_WB_RAF4F.docx
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PROJECT MANAGER C. Anderson
AUTHOR(S) A. Fullagar
CLIENT Lismore City Council
CLIENT CONTACT Eleisha Went
CLIENT REFERENCE –

SYNOPSIS This report details water balance modelling for the current and future quarry operations at Blakebrook Quarry, Blakebrook, New South Wales.

REVISION HISTORY

REVISION #	DATE	EDITION BY	APPROVED BY
1	01/18	A. Fullagar	C. Anderson / L. Varcoe
2	12/18	A. Fullagar	C. Anderson / L. Varcoe
3	12/02/19	A. Fullagar	C. Anderson / L. Varcoe
4	13/02/19	A. Fullagar	C. Anderson / L. Varcoe

DISTRIBUTION

	REVISION NUMBER									
Distribution	1	2	3	4	5	6	7	8	9	10
Lismore City Council	1	1	1	1						
G&S Library and File	1	1	1	1						

SUMMARY

Lismore City Council commissioned Gilbert & Sutherland to prepare a water balance assessment for Blakebrook Quarry under existing and proposed future site conditions for inclusion in the Soil and Water Management Plan (SWMP) for the site.

This water balance report uses estimates of quarry pit areas, catchment areas, water storage volumes and water usage that are applicable at the time of writing (February 2019). Models were developed to represent current and proposed future operational procedures at the site (to the degree that these practices could be quantified).

CONTENTS

1 Introduction

This water balance report uses estimates of quarry pit areas, catchment areas, water storage volumes and water usage that are applicable at the time of writing (February 2019). The model was developed to represent current operational procedures at the site (to the degree that these practices could be quantified). It is intended that this report be a 'living document' that is periodically updated to reflect changes to operational procedures over time (including improvements in quantifying water usage associated with current operations).

1.1 Version 3 and 4 – February 2019

There have been no further refinements to the modelling undertaken since the Version 2 report was issued in December 2018.

1.2 Version 2 – December 2018

Refinements to the modelling undertaken since the Version 1 report was issued in January 2018 include:

- Revision of the estimated product export volumes based on the 2017 annual return volumes (as reported in Gilbert & Sutherland's *'Annual Surface Water Balance 2017, Blakebrook Quarry, Blakebrook, New South Wales'* dated February 2018).
- Revision of the model for the 'current quarry footprint' to represent existing site conditions with a single licensed site discharge point, in place of the proposed three (3) discharge points that are currently under application. The model for the 'future quarry footprint' still includes three (3) discharge points in anticipation of approval of a license variation application to include the additional locations.
- Refinement of the southwestern catchment split between the pre-existing sediment basin SW1 and the under-construction sediment basin in SW2.
- Stage-area-storage relationships for the existing sediment basins in the North Pit and sub-catchment SW1 (based on detailed ground survey).
- Estimates of the post-construction stage-area-storage relationship for the sedimentation basin in SW2.
- Revised estimates of seepage out of water bodies based on the results of the groundwater assessment.
- An allowance for future groundwater interaction within the pits (based on the results of a groundwater assessment undertaken since the previous report was issued). This applies to the 'future quarry footprint' model only.

2 Model description and overview

2.1 Introduction

A spreadsheet-based water balance model was developed to examine the water flows in, within and out of the quarry development. The model defines the day-to-day site runoff, water storage volumes, water uses and stormwater discharges from the site. This day-to-day evaluation was then used to assess water supply and estimate annual discharges from the site.

The water balance model addresses discharge at one (1) identified site discharge point, LPD1, as shown on Drawing No. 11737-004 (in Attachment 1). LPD1 is currently the only licensed discharge point from the quarry and therefore the only discharge point addressed in the model for the 'current quarry footprint'.

For the proposed 'future quarry footprint', a further two discharge points, LPD2 and LPD3, have also been addressed by the modelling. These are natural discharge points that are proposed to also be included as licensed discharge points for future quarry operations, as identified in G&S' *'Soil and Water Management Plan, Blakebrook Quarry, Blakebrook, New South Wales'* prepared for LCC and dated February 2019 (the SWMP). Lismore City Council (LCC) is currently in the process of applying for a licence variation to permit discharge at LPD2 and LPD3 in addition to LPD1, and as such they are shown on Drawing No. 11737-005 (in Attachment 1) which depicts proposed future quarry operations.

2.2 Model structure

The water balance was developed using a spreadsheet model, adopting a daily time-step for estimation of rainfall, runoff, collection, reuse and discharge of water from the site. The model primarily addresses surface water flows within the site and has been updated to include consideration of surface water to groundwater interactions based on the outcomes of G&S's *'Hydrogeological Review: Groundwater Monitoring & Management Blakebrook Quarry Nimbin Road, Lismore, New South Wales'* dated February 2019.

The model excludes all potable water usage and wastewater discharge from the site.

The model is comprised of four (4) separate 'modules' which, in general, operate independently with respect to water management within the site, however, at present, discharge out of each of the four site catchments is directed to a single licenced discharge point (LPD1). These four 'modules' are based on the four defined catchment areas and corresponding sedimentation basins shown on the drawings numbered 11737-004 and 11737-005 (in Attachment 1). These catchment areas are:

- North Pit
- South Pit
- South-western catchment 1 (SW1)
- South-western catchment 2 (SW2)

A summary of the management of surface water within each of the modelled modules is described herein.

2.2.1 North Pit

The North Pit has the largest catchment area, occupying the majority of the site. Surface water collected within the North Pit is relied upon for the majority of uses within the site. The North Pit contains a sedimentation basin (for treatment of runoff) and the main water storage dam. The main dam provides the primary water storage on the site and is used for filling of a water cart for dust-suppression within the site and also for topping up the water storage tank. The tank is a secondary water storage and is used to supply all other (non-potable) site uses.

Runoff from the undisturbed upslope areas within this catchment is intercepted by a clean water diversion drain and conveyed around the northern end of the pit to an existing ephemeral gully to which it would naturally drain, had the catchment not been disturbed for the quarry. This diverted clean water has been excluded from the water balance model.

Runoff from the pit and all remaining upslope areas draining into the pit is collected in a single sedimentation basin, currently located in the north-west of the pit. This sediment basin only has sufficient capacity internally to cater for nuisance events. In all larger events, runoff that exceeds the basin capacity will temporarily pond over the floor of the pit until it is treated and discharged. The sediment basin currently operates as a wet basin due to seepage into the basin from the surrounding rock. Level markers are to be installed within the basin to identify the permanent ponding level that must be restored after each rainfall event.

Following rainfall, water collected in the sediment basin is tested and treated (to meet the required water quality targets) before being discharged within 5 days. Discharge from the basin is pumped to the main dam for reuse within the site. When the dam reaches capacity, excess treated water is pumped out of the sediment basin and directed to LPD1. Subject to future approval of the additional site discharge points, it is intended that in the future excess treated water be pumped directly out to LPD2, a natural discharge point for the pre-quarry landform that is more suitable in proximity to the main dam within the North Pit than the currently licensed discharge point.

The main dam is isolated from directly receiving site runoff to ensure that a clean water supply is maintained on site whenever possible. The dam is topped up by treated water from the sediment basin. The water is used directly for filling of a water cart for dust suppression, and indirectly for all other non-potable site uses by topping up the water storage tank.

The water storage tank is used to supply the asphalt plant, sprinklers (for dust suppression on the haul road) and for maintaining product moisture during processing.

2.2.2 South Pit

The South Pit has a significantly smaller catchment area and, at present, runoff from this catchment is not required for water supply purposes. Accordingly, the management of surface water runoff in this catchment is focused on treatment and discharge to meet the site's water quality targets.

Runoff from a small undisturbed upslope area within this catchment is intercepted by a clean water diversion drain and conveyed around the north-western side of the pit to an adjacent ephemeral gully. This diverted clean water has been excluded from the water balance model.

Initial excavation works for the South Pit commenced in late 2014 under a temporary approval to service a specific state-government project. These initial works have been completed and further excavation works for the South Pit are currently on hold.

For the current extent of excavation, the South Pit is designed to operate as a sedimentation basin for treatment of runoff from the pit and contributing catchment area shown on Drawing No. 11737-004. Earthworks have been undertaken to direct all runoff from the disturbed upstream catchment (including the access road) to the pit.

The South Pit is intended to operate as a dry basin. Following rainfall, water collected in the South Pit will be tested and treated (to meet the required water quality targets) before being pumped out to LPD1 within five days of a rainfall event. Subject to future approval of the additional site discharge points, it is intended that in the future excess treated water be pumped directly out to LPD3, a natural discharge point for the pre-quarry landform that is more suitable in proximity to the South Pit than the currently licensed discharge point. The pit is to remain dry at all other times.

For future expansion of the South Pit excavation, a separate sediment basin will be constructed within the floor of the pit to treat surface runoff in a contained area during treatment, to minimise disturbance of quarry operations for the period following a rainfall event. The sediment basin will be operated in the same way as the pit is currently operated and any overflow from the basin (during events exceeding its design capacity) will be contained within the pit until the water is treated and discharged.

2.2.3 South-western catchments (SW1 and SW2)

The southwestern catchments (SW1 and SW2) are located outside of the quarry pit catchment areas and (similar to the South Pit) do not contribute to the site's water supply requirements. Both catchments discharge to LPD1. The management of surface water runoff in these catchments is focused on treatment and discharge to meet the site's water quality targets.

All catchment runoff is directed as surface flow to the respective basins. The sedimentation basins have been sized based on the design rainfall event for the site (60.2 mm in 5 days). Runoff up to the design event will be treated and pumped out of the basins within 5 days of a rainfall event. As these basins are not contained within the pits, catchment runoff during rainfall exceeding the design event will overflow from the basins and discharge directly to LPD1. Both sedimentation basins will remain dry at all other times.

2.2.4 Water balance flow chart

Figures 1 to 3 (in Attachment 2) provide a schematic of surface water flows within the site that have been included in the water balance model.

3 Model inputs and assumptions

3.1 Model inputs

The water balance model was run for the two scenarios – current and future quarry footprints – as depicted on the drawings numbered 11737-004 and 11737-005 in Attachment 1. The adopted assumptions for each of these scenarios are described herein.

3.1.1 Climate data

Daily time-step SILO Data Drill for the quarry site for the period from 1 January 1889 to 4 February 2018 was obtained from the Queensland Government Department of Science, Information Technology and Innovation (DSITI).

An analysis of the annual rainfall totals for 1889 to 2016 was undertaken to select a representative period to adopt for the water balance modelling. Based on this analysis, the 20-year period from 1 January 1981 to 31 December 2000 was adopted for the modelling. In selecting this period, consideration was also given to the availability of suitable daily time-step evaporation data, which was only available from 1970 onwards.

Table 3.1.1.1 provides a comparison of the annual rainfall statistics for the entire dataset and the adopted modelling period.

Table 3.1.1.1 Annual rainfall statistics

	Annual rainfall totals (mm)	
Statistic	Entire dataset (1889 to 2017)	Model period (1981 to 2000)
Mean	1,491	1,478
Minimum	585	869
Maximum	2,478	2,308
Percentile bands		
5th percentile	913	1,014
10th percentile	1,051	1,086
20th percentile	1,141	1,121
Median (50th percentile)	1,426	1,438
80th percentile	1,845	1,790
90th percentile	2,119	2,155
95th percentile	2,226	2,236

Based on the above analysis, the adopted modelling period has a similar average annual rainfall to the long-term dataset and includes annual totals ranging from below the 5th percentile to above the 95th percentile of the long- term dataset. The adopted period is therefore considered to be representative of long-term climatic conditions for the site.

Daily rainfall and pan evaporation drill data were adopted as inputs for the model. The average monthly rainfall and pan evaporation totals over the modeling period are provided in Table 3.1.1.2 (on the following page).

Table 3.1.1.2 Average monthly rainfall and pan evaporation

Month	Rainfall (mm)	Pan evaporation (mm)
January	147	165
February	192	134
March	184	128
April	183	97
May	151	70
June	98	63
July	80	72
August	49	95
September	41	126
October	74	150
November	111	154
December	170	171
Annual total	**1478**	**1425**

3.1.2 Catchment areas

Catchment areas included in the modelling for each of the four modules are described in Table 2.1.2.1.

Table 3.1.2.1 Contributing catchment areas

	Current footprint (December 2018)				Future quarry footprint			
Description	North Pit (ha)	South Pit (ha)	SW1	SW2	North Pit (ha)	South Pit (ha)	SW1	SW2
Areas included in model								
Catchment	37.107	3.746	0.449	1.818	40.924	4.893	0.442	1.817
Dam	0.292	-	-	-	0.292	-	-	-
Total	**37.399**	**3.746**	**0.449**	**1.818**	**41.216**	**4.893**	**0.442**	**1.817**
External catchment area (excluded from model)								
Undisturbed catchment	11.309	1.102	-	-	9.500	0.767	-	-

3.1.3 Storage volumes – existing quarry footprint

The capacity of the main dam and storage tank were provided by quarry management and are shown in Table 3.1.3.1 (following page).

Table 3.1.3.1 Storage volumes

Water storage	Volume (ML)
Main Dam	30
Tank	1.0

The sedimentation basins were modelled using stage-area-storage relationships to represent the settling zone capacity within each basin. For the sediment basins in the North Pit and South-western Catchment 1, these relationships were derived from ground survey data supplied by Newton Denny Chapmen (NDC). The following assumptions were made for modelling purposes:

- The North Pit sedimentation basin is permanently wet due to seepage into the basin from the surrounding rock.

- Based on a review available satellite imagery, it is estimated that, between rainfall events, the wet area of the basin is approximately 0.2 ha.
- A review of the basin survey returned a footprint of 0.202 ha at RL101.9 metres Australian Height Datum (mAHD) and this was adopted as the 'bottom' of the settling zone within the basin. The surveyed storage below this level is considered as sediment storage capacity and has been excluded from the model.
- As the basin is only sized to cater for nuisance events, the modelled stage-storage relationship was extended above the top of the surveyed basin area (0.4 ha at RL102.8 mAHD) to represent temporary ponding over the quarry floor by assuming the quarry floor grades towards the basin at an average of 1 percent.

The modelled storage characteristics for the north pit sedimentation basin are given in Table 3.1.3.2.

Table 3.1.3.2 North Pit sedimentation basin – modelled storage details (settling zone)

Elevation (mAHD)	Area (ha)	Volume (ML)
101.9	0.202	0.000
102.0	0.248	0.225
102.1	0.279	0.350
102.2	0.303	0.490
102.3	0.335	0.646
102.4	0.359	0.986
102.5	0.374	1.353
102.6	0.384	1.732
102.7	0.392	2.121
102.8	0.401	2.517
102.9	0.720	3.077
103.0	1.120	3.997
103.1	1.600	5.357
103.2	2.160	7.237
103.3	2.800	9.717
103.4	3.520	12.877
103.5	4.320	16.797
103.6	5.200	21.557
103.7	6.160	27.237
103.8	7.200	33.917
103.9	8.320	41.677
104.0	9.520	50.597
104.1	10.800	60.757
104.2	12.160	72.237
104.3	13.600	85.117
104.4	15.120	99.477

Under current site conditions, the south pit is utilised as a sediment basin for its contributing catchment. For modelling purposes, and based on the existing pit landform, it has been assumed to have vertical walls. The required sediment basin storage volume of 2.67 ML (settling zone capacity of 1.78ML plus sediment storage

capacity of 0.89ML) is exceeded by the storage capacity of the pit and where necessary (in large rainfall events) the pit will fill above the required storage level, with discharge limited by the outlet pump capacity. The modelled conditions for the South Pit sedimentation basin are given in Table 3.1.3.3.

Table 3.1.3.3 South Pit as sedimentation basin – modelled storage details (settling zone)

Depth (m)	Area (ha)	Volume (ML)
0	0.490	0.00
0.365	0.490	1.78
1.000	0.490	4.90
2.000	0.490	9.80

The sediment basin in catchment SW1 is a dry basin. Based on the sedimentation basin design principles, where half of the of the settling zone capacity is included as additional sediment storage capacity, it was assumed that one third of the surveyed capacity was set aside as the sediment storage zone and the upper two-thirds of the surveyed capacity was the available settling zone for inclusion in the model.

The modelled settling zone storage characteristics for the sedimentation basin in sub-catchment SW1 are given in Table 3.1.3.4.

Table 3.1.3.4 SW1 sedimentation basin – modelled storage details (settling zone)

Elevation (mAHD)	Area (ha)	Volume (ML)
115.4	0.0000	0.000
115.5	0.0158	0.015
115.6	0.0166	0.032
115.7	0.0174	0.049
115.8	0.0182	0.066
115.9	0.0189	0.085
116.0	0.0196	0.104
116.1	0.0203	0.124
116.2	0.0210	0.145
116.3	0.0217	0.166
116.4	0.0225	0.188
116.5	0.0232	0.211

The sediment basin in catchment SW2 is currently under construction and once complete will operate as a dry basin. We have been advised that based on site conditions, the maximum basin depth that can be achieved in this location is 1.5 metres. Given that the required settling zone capacity is twice the sediment storage capacity, we have assumed the final basin form will have vertical walls and a settling zone depth of 1 metre. The modelled settling zone storage characteristics for the sedimentation basin in sub-catchment SW2 are given in Table 3.1.3.5.

Table 3.1.3.5 SW2 sedimentation basin – modelled storage details (settling zone)

Depth (m)	Area (ha)	Volume (ML)
0	0.0865	0.000
0.5	0.0865	0.433
1.0	0.0865	0.865

3.1.4 Storage volumes – future quarry footprint

Basins SW1 and SW2 (once constructed) will remain in place with no changes to the storage characteristics future quarry operations.

If the storage tank needs to be relocated in the future to allow for the planned quarry expansion, its volumetric capacity must remain the same at 1.0 ML.

As the quarry works progress, the main storage dam will require some works to maintain its capacity as the quarry floor is lowered. Detailed design for such changes to its configuration will be undertaken at such time in the future that these works are required. For modelling purposes, and until such time as re-design and modification works are undertaken, it has been assumed that the dam footprint and storage volume will remain in their current form.

As works progress and the floor is lowered in the North Pit, the sedimentation basin will require revision. Such works will include increasing the capacity of the sedimentation basin to cater for the design storm event without ponding across the quarry floor (noting that temporary ponding across the quarry floor is expected to occur in events exceeding the design event). The total required sedimentation basin capacity is 29.4 ML (settling zone capacity of 19.6 ML plus sediment storage capacity of 9.8 ML). Assuming a total basin depth of 3 metres and vertical walls, a basin area of 9,800 m² is required to be set aside for future works. For modelling purposes (to cater for events exceeding the design event), the basin stage-storage relationship has been extended above the top of the sediment basin to permit ponding across the quarry floor, assuming a 1 percent grade towards the basin. The modelled settling zone storage characteristics of the north pit sedimentation basin are shown in Table 3.1.4.1.

Table 3.1.4.1 North Pit sedimentation basin – modelled storage details (settling zone)

Depth (m)	Area (ha)	Volume (ML)
0	0.980	0.00
0.5	0.980	4.90
1.0	0.980	9.80
1.5	0.980	14.70
2.0	0.980	19.60
2.1	1.512	20.846
2.2	2.124	22.664
2.3	2.816	25.134
2.4	3.588	28.336
2.5	4.440	32.350
2.6	5.372	37.256
2.7	6.384	43.134
2.8	7.476	50.064
2.9	8.648	58.126
3.0	9.900	67.400
3.1	11.232	77.966
3.2	12.644	89.904
3.3	14.136	103.294
3.4	15.708	118.216

The south pit works are currently on hold and the entire pit floor is being used as a sedimentation basin for the South Pit catchment. When works to expand the south pit recommence, it is recommended that a separate sediment basin be installed in the floor of the South Pit, similar to the basin in the North Pit. The total required sedimentation basin capacity is 3.49 ML (settling zone capacity of 2.33 ML plus sediment storage capacity of 1.16 ML). Assuming a total basin depth of 3 metres and vertical walls, a basin area of 1,170 m² is required to be set aside for future works. For modelling purposes (to cater for events exceeding the design event), the basin stage-storage relationship has been extended above the top of the sediment basin to permit ponding across the quarry floor, assuming a 1 percent grade towards the basin. The modelled settling zone storage characteristics of the south pit sedimentation basin are shown in Table 3.1.4.2.

Table 3.1.4.2 South Pit sedimentation basin – modelled storage details (settling zone)

Depth (m)	Area (ha)	Volume (ML)
0	0.117	0.000
0.5	0.117	0.585
1.0	0.117	1.170
1.5	0.117	1.755
2.0	0.117	2.340
2.1	0.295	2.546
2.2	0.553	2.970
2.3	0.891	3.692
2.4	1.309	4.792
2.5	1.807	6.350
2.6	2.385	8.446
2.7	3.043	11.160

3.1.5 Water usage – main dam

Water truck

A water truck is used for dust suppression throughout the site. Water for the cart is sourced directly from the Main Dam. We have been advised by quarry management that:

- The water truck has as capacity of 17.5 kL.
- In warmer months, approximately 6-8 truck loads are currently used on site each day.
- In cooler months, approximately 2-4 truck loads are currently used on site each day.
- Following very light rainfall, a water truck use decision is made by visual observation of site conditions.
- During wet weather, the water truck is not used.

We anticipate that water usage for dust suppression will increase as the quarry footprint increases in the future (approximately doubling the current footprint). Based on the above estimates, the usage in Table 2.1.4.1 was adopted in the model. The highest water usage (in the warmer months) has been correlated with average monthly pan evaporation values.

Table 2.1.4.1 Water truck usage adopted in the model

Month	Current footprint (December 2017) (ML)	Future quarry footprint (ML)
January	8	16
February	6	12
March	6	12
April	4	8
May	3	6
June	2	4
July	3	6
August	4	8
September	6	12
October	7	14
November	7	14
December	8	16

For modelling purposes, it has been assumed that:

- the water truck will not operate on days where the rainfall exceeds pan evaporation; and
- the water truck will not operate on Sundays when the quarry is closed.

Quarry management recently introduced a daily log of water truck usage to better quantify actual site water usage. Those records will be reviewed periodically to inform updates to the water balance model estimates.

3.1.6 Water usage – storage tank

Quarry management has advised that the 1 ML storage tank is topped up from the dam once per week. On average, we have been advised that the tank empties to approximately 50 percent capacity within this time frame, however no measurements of water usage and top-up volumes have been undertaken to date to confirm this. Modelled water usage from the tank is described below.

It is noted that the *'Soil and Water Management Plan, Blakebrook Quarry, Blakebrook, New South Wales'* to which this water balance is attached provides recommendations regarding recording water usage data on site, so the following estimates can be improved for future reporting purposes.

Haul road sprinklers

Sprinklers are located along the haul road for dust suppression during truck movements. Water for the sprinklers is sourced from the storage tank. Based on the assumptions listed in ERM's April 2011 Soil and Water Management Sub-Plan, whilst operating, the sprinklers use approximately 20 kL per day. This daily demand has been applied to the model for 6 days per week, excluding Sundays when the quarry is closed.

Asphalt plant

An on-site asphalt plant is located across catchments SW1 and SW2 and sources its water from the storage tank. Estimated water usage for the plant was adopted from ERM's April 2011 Soil and Water Management Sub-Plan. When operating, the asphalt plant uses 0.2 kL/day. This demand is considered to be independent of climatic variables and has been applied to the model as a constant for the 6 days per week (excluding Sundays) when the plant is operating. The estimated annual plant water usage is 0.0616 ML.

Process/product water

Water is used to maintain moisture in the product during processing, at an average rate of four percent moisture (by weight) for all product exported from the site. This water is sourced from the storage tank.

For the current quarry footprint, daily product export data for 2017 was supplied and summed to return a total production for the year of 147,327.37 tonnes. To represent periodic changes in production rates (or product export rates), whilst recognising that the process/product water will not only be applied on the specific day that product is exported from the site, the product exported was totalled for each calendar month and then averaged across six-days per week (i.e. excluding Sundays) for that month (noting that no further adjustment was made for Public Holidays or holiday periods).

The total monthly product export and assumed daily product water demand for the current quarry footprint is given in Table 3.1.5.1. This demand has been applied to the model, six days per week (excluding Sundays) except where the rainfall exceeds pan evaporation, in which case no product moisture has been added in the model.

Table 3.1.5.1 Product water demand adopted in the model – current quarry footprint

Month	Monthly production (tonnes)	No. of days (excl. Sundays)	Average daily product (tonnes)	Daily water demand (kL)
January	13,499.8	26	519.2	20.8
February	8,799.2	24	366.6	14.7
March	5,528.6	27	204.8	8.2
April	1,939.25	25	77.6	3.1
May	9,345.35	27	346.1	13.8
June	11,432.35	26	439.7	17.6
July	12,757.7	26	490.7	19.6
August	20,679.55	27	765.9	30.6
September	26,844.87	26	1,032.5	41.3
October	15,464.95	26	594.8	23.8
November	20,524.35	26	789.4	31.6
December	511.4	26	19.7	0.8

The corresponding daily water demand is 19.15kL.

The licence permits the quarry to produce up to 500,000 tonnes annually, which has been adopted for the future quarry footprint model. This equates to an average daily product export of 1602.6 tonnes for the 6 days per week that the quarry is operational throughout the year. This increased production results in a daily water demand of 64.10kL. This has been applied to the model, 6 days per week (excluding Sundays) except where the rainfall exceeds pan evaporation, in which case no product moisture has been added in the model.

3.1.7 Controlled discharge from sedimentation basins

As noted above, it is a requirement of the license that rainfall runoff collected in the sedimentation basins (in the North Pit, South Pit and south-western catchments) be tested and treated (to meet the required water quality targets) before being discharged within five days.

For modelling purposes, the water balance assumes that satisfactory water quality can be achieved to commence discharge from the basins on the same day that any runoff is collected.

North Pit

For the North Pit, discharge from the basin will be primarily directed to the main dam. When the dam reaches capacity, excess treated water is to be pumped out of the sediment basin directly to LPD1. Subject to future approval of additional site discharge points, this will ultimately be pumped out to proposed LPD2.

For rainfall up to the design event, a base discharge rate has been applied to the model, based on emptying the required sedimentation basin capacity (including overflow to the pit floor) evenly across five days. For large rainfall events (exceeding the 60.2 mm design event) discharge is not required to meet the water quality targets and the basins will be emptied as soon as practicable.

For rainfall exceeding the design event, the maximum daily discharge from the North Pit sediment basin rate has been calculated based on pumping at a rate of 200 L/s for 12 hours per day.

South pit

All South Pit runoff will be collected within the pit. Discharge will be primarily directed to LPD1. Subject to future approval of additional site discharge points, this will ultimately be pumped out to proposed LPD3.

For rainfall up to the design event, a base discharge rate has been applied to the model, based on emptying the required sedimentation basin capacity evenly across five days. Discharge due to large rainfall events (> the 60.2 mm design event) is not required to meet the water quality targets and the basins will be emptied as soon as practicable.

For rainfall exceeding the design event, the maximum daily discharge rate from the South Pit sedimentation basin has been calculated based on pumping at a rate of 50 L/s for 12 hours per day.

Southwestern catchments

For the south-western catchments, SW1 and SW2, all surface runoff will be collected within the respective sedimentation basins located on the outlet of each catchment. These basins have been sized to capture and treat runoff during the five-day rainfall design event of 60.2 mm. It is a licence requirement that water collected during rainfall events (up to the five-day rainfall design event of 60.2 mm) be treated and discharged within five days of the event. Accordingly, for rainfall up to this design event, a base discharge rate (i.e. emptying each of the sedimentation basins evenly across five days) was modelled.

In rainfall events exceeding the design event, it is anticipated that catchment runoff (in excess of the basin capacity) will enter the basins and subsequently overflow to the receiving environment, leaving the site at LPD 1. The base pumping rate will still apply during these periods to empty the sedimentation basin capacity below the overflow level.

Summary of discharge rates

A summary of the pumping rates for emptying the sedimentation basins is provided in Table 3.1.7.1 (on the following page).

Table 3.1.7.1 Sedimentation basin discharge pumping rates

Water storage	Current footprint (December 2018)	Future quarry footprint
North Pit sedimentation basin		
Required settling zone volume (ML)	17.79	19.60
Base discharge rate (ML/day)	3.558	3.92
Maximum discharge rate (ML/day)	8.64	8.64
South Pit sedimentation basin		
Required settling zone volume (ML)	1.78	2.33
Base discharge rate (ML/day)	0.356	0.466
Maximum discharge rate (ML/day)	2.16	2.16
South-western catchment 1 sedimentation basin		
Settling zone volume (ML)	0.214	0.214
Discharge rate (ML/day)	0.0428	0.0428
South-western catchment 2 sedimentation basin		
Settling zone volume (ML)	0.865	0.865
Discharge rate (ML/day)	0.173	0.173

3.2 Water balance calculations

3.2.1 Runoff

The volumetric runoff coefficient is defined as the proportion of rainfall that runs off as stormwater. Catchment runoff was calculated adopting the volumetric runoff coefficients from Table F2 of Appendix F of the *Managing Urban Stormwater: Soils and Construction, Volume 1, 4th edition, March 2004*, Landcom (the Blue Book). Based on the soil type the applicable values for the runoff coefficient are shown in Table 3.2.1.1.

Table 3.2.1.1 Volumetric runoff coefficients (Soil Hydrologic Group D)

Rainfall depth (mm)	Runoff coefficient (C_v)
< 20	0.39
20 – 25	0.50
25 – 30	0.56
30 – 40	0.64
40 – 50	0.69
50 – 60	0.74
60 – 80	0.79
> 80	0.84

Rainfall runoff calculations were undertaken for all dry catchment areas contributing to the sedimentation basins. For wet catchment areas (i.e. the main storage dam and the calculated daily wet area for each sedimentation basin), rainfall was applied directly to the water body in the model with no volumetric reduction for conversion to runoff.

3.2.2 Evaporation

Losses due to evaporation were applied to all open water storages on a daily basis, based on the estimated wet area. The main dam area was assumed as a constant, adopting the area in Table 3.1.2.1. Wet areas for each of the sedimentation basins were based on the stage-storage relationships described in Sections 3.1.3 and 3.1.4. Evaporative losses from water bodies were calculated using a conversion factor of 0.7, applied to the pan evaporation data.

3.2.3 Seepage

Losses due to seepage were applied to all open water storages on a daily basis, based on the estimated wet area. The main dam area was assumed as a constant, adopting the area in Table 3.1.2.1. Wet areas for each of the sedimentation basins were based on the stage-storage relationships described in Sections 3.1.3 and 3.1.4.

For the current operating conditions, seepage losses from all water bodies have been calculated using a constant seepage rate of 10 mm/day.

For future operating conditions, the deeper excavation in the North Pit will result in the water bodies (Main Dam and north pit sediment basin) being located in geology with lower permeability. For these two water bodies, a constant seepage rate of 1 mm/day has been modelled. For the south pit and south-western catchment sediment basins, the rate of 10 mm/day has been applied (equivalent to current site conditions).

3.2.4 Groundwater inflows

As the excavation in the North Pit gets deeper, it will intersect existing aquifers, resulting in groundwater inflows into the pit. It is anticipated the groundwater will be collected in perimeter drains (to be constructed) and be conveyed to the sediment basin. Details of a groundwater assessment undertaken to quantify flows into the pit are given in G&S's 'Hydrogeological Review: Groundwater Monitoring & Management Blakebrook Quarry Nimbin Road, Lismore, New South Wales' dated December. Based on this assessment, it has been assumed that, under future operating conditions, 190 kL/day of groundwater will flow into the pit.

3.2.5 Initial conditions

For modelling purposes, the following assumptions have been made in respect of water storage volumes at the commencement of the 20-year model period:

- Main water storage dam – initial volume = 28.8 ML (average long-term storage volume under current conditions)
- Water storage tank – full (initial volume = 1 ML)
- North Pit sedimentation basin – empty
- South Pit (functioning as sedimentation basin) – empty
- South-western catchments (SW1 and SW2) sedimentation basins – empty

4 Results – Existing quarry conditions

4.1 Climate data summary

A summary of relevant climate data is provided in Table 4.1.1.1.

Table 4.1.1.1 Climate data analysis

Parameter	Average year	Minimum	Maximum
Total number of rainfall days per year	184.5	143	220
Total number of days per year exceeding 5-day design rainfall (60.2 mm) for previous 5 days	31.2	8	62
Number of events per year exceeding 5-day design rainfall (60.2 mm)	6.4	2	10
Duration of longest exceedance event [a]	7.8	5	16

[a] Duration of exceedance event is defined by number consecutive days that 5-day rainfall total exceeds 5-day design rainfall. Duration of exceedance will exclude (up to) the first to fourth days of rainfall event if 5-day design rainfall is not exceeded during those days.

4.2 Northern catchment

Based on the inputs and assumptions described above, the modelling results show that rainfall and runoff captured from the northern catchment alone provides sufficient inflow to the main dam to service all water demands within the quarry throughout the full range of modelled climatic conditions.

4.2.1 Northern catchment sedimentation basin

A summary of the annual water balance results for the Northern catchment sedimentation basin is presented in Table 4.2.1.1.

Table 4.2.1.1 Northern catchment sedimentation basin – annual volumes

Parameter	Average year	Minimum	Maximum
Rainfall volume – total North Pit catchment area (ML)	552.8	324.9	863.3
Runoff volume – total North Pit catchment area (ML) [a]	309.5	167.0	542.4
Total basin inflow (ML)	312.1	166.7	551.4
Evaporative losses (ML)	2.8	1.2	5.6
Seepage losses (ML)	10.9	4.6	23.4
Discharge – pumped to main dam	43.0	36.7	47.2
Discharge – pumped out to LPD1	255.5	113.7	490.7

[a] Total runoff expected to have been generated and discharged from equivalent catchment area if no obstructions (sediment basin, dam, quarry pit) were present. Estimate provided for comparison to estimated discharge diverted from this location to LPD1.

On average, it is estimated that total catchment discharge from the North Pit area reduces by approximately 17 percent as a result of the quarry operations. As current licence conditions require that all controlled site discharge be directed to the licenced discharge point at LPD1, runoff to the receiving environment downstream of the natural catchment discharge point west of the sedimentation basin will be reduced substantially (by 309.5 ML/year) with only runoff from the 11.3 hectare undisturbed upstream catchment that is diverted around quarry pit continuing to drain to this location (approximately 93.5 ML/year).

A summary of the estimated sedimentation basin performance is provided in Table 4.2.1.2.

Table 4.2.1.2 Northern catchment sedimentation basin performance

Parameter	Average year	Minimum	Maximum
Total number of discharge days (to Main Dam and/or LPD)	171	142	215
Total number of days discharging to Main Dam	135	117	158
Total number of days discharging to LPD	100	54	159
Total number of days per year when basin contains water [a]	29	11	54
Maximum number of consecutive days where basin contains water	9.1	3	24
Average number of days to empty basin	2.6	1.6	4.8

[a] Total number of days containing water has been calculated based on end-of-day volumes after all losses and discharges have been accounted for. More frequent wetting and drying during small events is expected and is accounted for by losses and/or immediate discharge.

The model inputs (basin volumes and pumping rates) dictate that the basin will be emptied within five days of the cessation of all rainfall events up to and including the five-day design rainfall event of 60.2 mm. Where rainfall exceeds the design capacity of the system or a rainfall event continues for more than the 5-day design event duration, the basin is expected to contain water for a longer period whilst active discharge is taking place, (as demonstrated by the results above).

4.2.2 Main Dam water balance

A summary of the water balance results for the Main Dam is presented in Table 4.2.2.1.

Table 4.2.2.1 Northern catchment Main Dam – annual volumes

Parameter	Average year	Minimum	Maximum
Dam inflow from direct rainfall (ML)	4.3	2.5	6.7
Dam inflow pumped from sediment basin (ML)	43.0	36.7	47.2
Total dam inflow (ML)	**47.3**	**43.0**	**51.0**
Evaporative losses (ML)	2.9	2.6	3.3
Seepage losses (ML)	10.7	10.6	10.7
Total losses (ML)	**13.6**	**13.2**	**13.9**
Usage – water truck for dust suppression (ML)	22.7	19.6	24.6
Usage – main tank top-up for other site usage (ML)	11.0	10.5	11.4
Total usage (ML)	**33.7**	**30.3**	**35.9**
Daily stored volume (ML) [a]	**28.8**	**16.7**	**30.9**

[a] Stored volumes reported using average, minimum and maximum daily levels for entire modelling period (not based on annual averages).

The modelling results show that under all modelled climatic conditions, the main dam has sufficient water to meet all quarry water demands. The minimum estimated storage volume is 16.7 ML (or 13.3 ML below full capacity) throughout the model period. It is recommended that detailed ground and bathymetric survey be undertaken to confirm the dam's storage volume and stage-area-volume estimates to improve the reliability of future supply estimates. Level loggers will also be installed to monitor variability in water levels to better

quantify water losses from the storage (once reliable estimates of water usage are established). Figure 4 (attached) shows the estimated daily dam storage volumes for the entire model period.

Although controlled dam inflows (i.e. pumped discharge from the sediment basin) are restricted to occur only when the dam is below full storage level, direct rainfall onto the dam during large rainfall events results in the full-storage capacity being exceeded for a short time after such events. Freeboard of up to 1 ML will be provided within the bunded dam area to accommodate this rainfall without mixing with 'dirty' quarry pit runoff.

Water truck

Based on the inputs described in Section 3.1.4, the modelling estimates that water truck dust suppression uses an average annual volume of 22.7 ML (or 1,297 truck loads). Quarry management's recent introduction of a daily log of water truck movements will help to confirm and improve the accuracy of the water balance model.

4.2.3 Main Tank water balance

A summary of the water balance results for the Main Tank is presented in Table 4.2.3.1.

Table 4.2.3.1 Main tank – annual volumes

Parameter	Average year	Minimum	Maximum
Dam inflow pumped from main dam (ML)	11.0	10.5	11.4
Usage – haul road sprinklers (ML)	6.3	6.2	6.3
Usage – asphalt plant (ML)	0.1	0.1	0.1
Usage – process/product water (ML)	4.7	4.2	5.1
Average daily stored volume (ML) [a]	**0.89**	**0.62**	**1.0**

[a] Stored volumes reported using average, minimum and maximum daily levels for entire modelling period (not based on annual averages).

The attached Figure 5 shows the estimated daily storage volumes in the tank for the entire model period. Based on the stated water usage assumptions, the modelling suggests that throughout the modelling period the minimum water level in the rain tank prior to weekly top-up will be 0.62 ML.

On average, the modelling indicates 11.0 ML of water is used to top up the tank each year. Comparatively, this is significantly lower than the estimate from site staff of weekly top-up volume being equivalent to approximately 50 percent of capacity (which equates to 26 ML/year). It is recommended that a flow-meter be installed on the tank outlet to monitor and better quantify water usage from the tank.

4.3 Southern catchment

The southern catchment water balance was undertaken to estimate the impact of the south pit operations on site discharge volumes. Collection and storage of water within the catchment is intended to be temporary only to satisfy water quality treatment requirements.

4.3.1 Southern catchment – quarry pit

As noted, under existing site conditions the Southern Pit provides a sedimentation basin function for treating runoff from the entire southern catchment. A summary of the annual water balance results for the South Pit (sedimentation basin) is presented in Table 4.3.1.1 (following page).

Table 4.3.1.1 Southern catchment quarry pit (sedimentation basin) – annual volumes

Parameter	Average year	Minimum	Maximum
Rainfall volume – total South Pit catchment area (ML)	55.4	32.5	86.5
Runoff volume – total South Pit catchment area (ML) [a]	31.0	16.7	54.3
Total pit inflow (ML)	34.2	18.8	58.5
Evaporative losses (ML)	1.8	1.5	2.3
Seepage losses (ML)	5.3	3.7	7.4
Discharge – pumped out to LPD1	27.1	13.6	49.9

[a] Total runoff that expected to have been generated and discharged from equivalent catchment area if no obstructions (i.e. quarry pit) were present. Estimate provided for comparison to estimated discharge diverted from this location to LPD1.

On average, it is estimated that total catchment discharge from the South Pit catchment area reduces by approximately 13 percent as a result of the quarry operations. As current licence conditions require that all controlled site discharge be directed to the licenced discharge point at LPD1, runoff to the receiving environment downstream of the natural catchment discharge point west of the sedimentation basin will be reduced substantially with only runoff from the undisturbed catchment area downstream of the quarry pit continuing to drain to this location.

A summary of the estimated sedimentation basin performance is provided in Table 4.3.1.2.

Table 4.3.1.2 South Pit/sedimentation basin performance

Parameter	Average year	Minimum	Maximum
Total number of days discharging to LPD	85	61	121
Total number of days per year when pit contains water [a]	15	7	26
Maximum number of consecutive days where pit contains water	3.1	2	6
Average number of days to empty pit	1.5	1.1	1.9

[a] Total number of days containing water has been calculated based on end-of-day volumes after all losses and discharges have been accounted for. More frequent wetting and drying during small events is expected and is accounted for by losses and/or immediate discharge.

4.4 South-western catchments

The south-western catchment water balance has been undertaken to estimate catchment discharge volumes at LPD1. Collection and storage of water within these catchments is intended to be temporary only to satisfy water quality treatment requirements. As these basins are not confined within the quarry pits, in rainfall events exceeding their design capacity, the basins will overtop and discharge directly to the receiving environment, leaving the site at LPD1. The modelled storage volume for the existing sedimentation basin SW1 is based on detailed ground survey. Sizing for basin SW2 (under construction) was subsequently undertaken to treat the balance of the overall south-western catchment that exceeded the available capacity in basin in SW1. The modelled storage volume for basin SW2 is based on the required volume for the basin that is currently under construction (as described in Section 3.1.3).

4.4.1 South-western catchment 1 – sedimentation basin SW1

A summary of the annual water balance results for the catchment SW1 sedimentation basin is presented in Table 4.4.1.1 (following page).

Table 4.4.1.1 Sedimentation basin SW1 – annual volumes

Parameter	Average year	Minimum	Maximum
Rainfall volume – total SW1 catchment area (ML)	6.6	3.9	10.4
Runoff volume – total SW1 catchment area (ML) [a]	3.7	2.0	6.5
Total basin inflow (ML)	3.7	2.0	6.6
Evaporative losses (ML)	0.02	0.01	0.04
Seepage losses (ML)	0.08	0.03	0.15
Pumped discharge to LPD1 (ML)	3.0	1.9	4.9
Overflow to LPD1 (ML)	0.6	0	2.0
Total discharge to LPD1 (pumped and overflow) (ML)	3.7	2.0	6.5

[a] Total runoff that expected to have been generated and discharged from equivalent catchment area if no obstructions (i.e. sedimentation basin) were present. Estimate provided for comparison to estimated catchment discharge pumped to LPD1.

On average, it is estimated that total catchment discharge from the SW1 catchment area is comparable to the discharge for the same catchment area prior to the quarry operations.

A summary of the estimated sedimentation basin performance is provided in Table 4.4.1.2.

Table 4.4.1.2 Sedimentation basin SW1 performance

Parameter	Average year	Minimum	Maximum
Total number of days discharging to LPD	196	155	235
Total number of days of overflow	4	0	14
Total number of days per year when pit contains water [a]	44	19	79
Maximum number of consecutive days where pit contains water	9.6	5	18
Average number of days to empty pit	3.7	2.1	6.2

[a] Total number of days containing water has been calculated based on end-of-day volumes after all losses and discharges have been accounted for. More frequent wetting and drying during small events is expected and is accounted for by losses and/or immediate discharge.

The model inputs (basin volumes and pumping rates) dictate that the sedimentation basin will be emptied within five days of the cessation of all rainfall events up to and including the five-day design rainfall event of 60.2 mm.

Where rainfall exceeds the design capacity of the system, the basin will overflow at the same time as controlled discharge is taking place. Where a rainfall event continues for more than the five-day design event duration, the basin is expected to contain water for a longer period whilst active discharge is taking place, as indicated in the results above.

4.4.2 South-western catchment 2 – sedimentation basin SW2

A summary of the annual water balance results for the catchment SW2 sedimentation basin is presented in Table 4.4.2.1 (following page).

Table 4.4.2.1 Sedimentation basin SW2 – annual volumes

Parameter	Average year	Minimum	Maximum
Rainfall volume – total SW2 catchment area (ML)	26.9	15.8	42.0
Runoff volume – total SW2 catchment area (ML) [a]	15.0	8.1	26.4
Total basin inflow (ML)	15.2	8.2	26.7
Evaporative losses (ML)	0.10	0.05	0.18
Seepage losses (ML)	0.37	0.16	0.69
Pumped discharge to LPD1 (ML)	12.2	7.5	19.6
Overflow to LPD1 (ML)	2.6	0	7.9
Total discharge to LPD1 (pumped and overflow) (ML)	14.7	7.9	26.4

[a] Total runoff that expected to have been generated and discharged from equivalent catchment area if no obstructions (i.e. sedimentation basin) were present. Estimate provided for comparison to estimated catchment discharge pumped to LPD1.

On average, it is estimated that total catchment discharge from the SW2 catchment area to LPD 1 reduces by approximately 2 percent as a result of the quarry operations. This reduction is the result of evaporative and seepage losses during the temporary storage and controlled discharge of water for treatment in the sedimentation basin.

A summary of the estimated sedimentation basin performance is provided in Table 4.4.2.2.

Table 4.4.2.2 Sedimentation basin SW2 performance

Parameter	Average year	Minimum	Maximum
Total number of days discharging to LPD	195	155	234
Total number of days of overflow	4	0	14
Total number of days per year when pit contains water [a]	43	19	79
Maximum number of consecutive days where pit contains water	9.6	5	1
Average number of days to empty pit	3.7	2.1	6.2

[a] Total number of days containing water has been calculated based on end-of-day volumes after all losses and discharges have been accounted for. More frequent wetting and drying during small events is expected and is accounted for by losses and/or immediate discharge.

The model inputs (basin volumes and pumping rates) dictate that the sedimentation basin will be emptied within five days of the cessation of all rainfall events up to and including the five-day design rainfall event of 60.2 mm.

Where rainfall exceeds the design capacity of the system, the basin will overflow at the same time as controlled discharge is taking place. Where a rainfall event continues for more than the five-day design event duration, the basin is expected to contain water for a longer period whilst active discharge is taking place, as indicated in the results above.

4.5 Water supply and security

The Main Dam in the North Pit is used to provide all water supply requirements for the site and as such, no imported clean (mains) water is relied upon or needed for any operational uses on site. The Main Dam has a capacity of 30 ML. As detailed in Section 4.2.2, throughout the entire 20-year model period, the available

volume of water stored in the dam does not fall below 16.7 ML (or 55.6 percent of capacity). With an average daily water usage across the site of 92.3 kL, this approximates to 181 days (or almost 6 months) of additional water supply available at all times throughout the modelling period.

Figure 4 (in Attachment 2) shows the estimated available storage levels throughout the model period, whilst Table 4.5.1 provides a summary of the frequency of availability of different supply levels (on a daily timestep basis) throughout the model period.

Table 4.5.1 Daily water supply availability – Main Dam

Main Dam storage volume (ML)	Percent of full storage (%)	Proportion of time storage level exceeded (%)
0	0	100.0%
3.0	10	100.0%
6.0	20	100.0%
9.0	30	100.0%
12.0	40	100.0%
15.0	50	100.0%
16.5	55	100.0%
18.0	60	99.9%
19.5	65	99.7%
21.0	70	99.1%
22.5	75	98.4%
24.0	80	97.0%
25.5	85	94.3%
27.0	90	88.2%
28.5	95	74.0%
30.0	100	11.0%
31.5	105	0.0%

5 Results – Future quarry conditions

5.1 Northern catchment

Based on the inputs and assumptions described above, the modelling results show that rainfall and runoff captured from the northern catchment alone, provides sufficient inflow to the main dam to service all water demands within the quarry throughout the full range of modelled climatic conditions.

5.1.1 Northern catchment sedimentation basin

Table 5.1.1.1 summarises the annual water balance results for the Northern catchment sedimentation basin.

Table 5.1.1.1 Northern catchment sedimentation basin – annual volumes

Parameter	Average year	Minimum	Maximum
Rainfall volume – total North Pit catchment area (ML)	609.2	358.0	951.4
Runoff volume – total North Pit catchment area (ML) [a]	341.1	184.1	597.7
Total basin inflow (ML)	411.4	252.4	674.6
Evaporative losses (ML)	1.9	0.4	5.3
Seepage losses (ML)	0.7	0.1	2.5
Discharge – pumped to main dam	66.7	56.1	73.8
Discharge – pumped out to LPD2	342.0	178.0	616.5

[a] Total runoff that expected to have been generated and discharged from equivalent catchment area if no obstructions (sediment basin, dam, quarry pit) were present. Estimate provided for comparison to estimated discharge pumped to (proposed) LPD2.

On average, it is expected that total catchment discharge from the North Pit area to (proposed) LPD 2 will be comparable to the discharge for the same undisturbed catchment area prior to quarrying works.
The comparative increase in catchment discharge (when compared to the substantial reduction in catchment discharge under existing conditions) is the combined result of:

- Interception of the groundwater table resulting in an additional inflow source to the quarry pit and significant contribution to the water usage demands within the site.
- Change in geotechnical characteristics of the landform with depth such that the permeability is significantly reduced and seepage from the sedimentation basin will also be reduced.
- Proposed (future) construction of a suitably sized sedimentation basin that does not rely on ponding over the quarry floor for all events up to the design event. The smaller wet basin footprint means evaporative losses from the basin are reduced.

A summary of the estimated sedimentation basin performance is provided in Table 5.1.1.2.

Table 5.1.1.2 Northern catchment sedimentation basin performance

Parameter	Average year	Minimum	Maximum
Total number of discharge days (to Main Dam and/or LPD) [a]	365	365	366
Total number of days discharging to Main Dam	289	250	317
Total number of days discharging to LPD	200	164	240
Total number of days per year when basin contains water [b]	35	12	70

Parameter	Average year	Minimum	Maximum
Max. number of consecutive days where basin contains water	12.4	3	36
Average number of days to empty basin	3.1	1.8	5.9

[a] Once the quarry pit intercepts groundwater, the basin will require continuous dewatering of the groundwater inflows to maintain capacity in preparation for rainfall events.

[b] Total number of days containing water has been calculated based on end-of-day volumes after all losses and discharges (including dewatering of groundwater inflows) have been accounted for. More frequent wetting and drying during small events is expected and is accounted for by losses and/or immediate discharge.

The model inputs (basin volumes and pumping rates) dictate that the sedimentation basin will be emptied within five days of the cessation of all rainfall events up to and including the 5-day design rainfall event of 60.2 mm. Where rainfall exceeds the design capacity of the system or a rainfall event continues for more than the 5-day design event duration, the basin is expected to contain water for a longer than five days, whilst active discharge is taking place, as demonstrated by the results above.

5.1.2 Main Dam water balance

A summary of the water balance results for the Main Dam is presented in Table 5.1.2.1.

Table 5.1.2.1 Northern catchment Main Dam – annual volumes

Parameter	Average year	Minimum	Maximum
Dam inflow from direct rainfall (ML)	4.3	2.5	6.7
Dam inflow pumped from sediment basin (ML)	66.7	56.1	73.8
Total dam inflow (ML)	**71.1**	**62.3**	**76.4**
Evaporative losses (ML)	2.9	2.6	3.3
Seepage losses (ML)	1.1	1.1	1.1
Total losses (ML)	**4.0**	**3.6**	**4.3**
Usage – water truck for dust suppression (ML)	45.3	39.2	49.2
Usage – main tank top-up for other site usage (ML)	21.7	20.0	23.1
Total usage (ML)	**67.0**	**59.2**	**72.3**
Daily stored volume (ML) [a]	**29.6**	**26.4**	**31.0**

[a] Stored volumes reported using average, minimum and maximum daily levels for entire modelling period (not based on annual averages).

The modelling results show that for predicted future conditions, the main dam will provide sufficient supply to service all water demands within the quarry throughout the full range of modelled climatic conditions, with a minimum estimated storage volume of 26.4 ML (or 3.6 ML below full capacity) throughout the model period. This indicates that a reduced dam capacity is feasible for future quarry operations without compromising reliability of supply. Further investigations will be required at such a time when quarry works progress to the point that the current dam required decommissioning and replacement to investigate the intermediate conditions (groundwater inflows, seepage etc.) as the modelling described above only reflects the ultimate stage of the quarry operations.

Section 5 of this report provides a series of recommendations to improve the accuracy of the above estimates. If implementation of those recommendations, and corresponding revisions of the water balance modelling, indicate that there is potential for the dam to empty during dry periods, the capacity of the dam will be increased in the future.

The attached Figure 6 shows the estimated future daily storage volumes in the dam for the entire model period (based on the existing dam capacity).

Although controlled dam inflows (i.e. pumped discharge from the sediment basin) have been restricted to only occurring when the dam is below full storage level, direct rainfall onto the dam during large rainfall events results in the dam exceeding full-storage capacity for a short time after such events. Sufficient freeboard (up to 1 ML) will be provided within the bunded dam area to accommodate this rainfall without mixing with dirty runoff from the quarry pit.

Water truck
Based on the inputs described in Section 3.1.4, the modelling estimates that an average annual volume of 45.3 ML is used by the water truck for dust suppression purposes. This equates 2,589 loads in the water truck. It is recommended that a daily log of all water truck movements be established on site to quantify actual site usage and improve the accuracy of future water balance modeling.

5.1.3 Main Tank water balance

A summary of the water balance results for the Main Tank is presented in Table 5.1.3.1 (following page).

Table 5.1.3.1 Northern catchment Main Dam – annual volumes

Parameter	Average year	Minimum	Maximum
Tank inflow pumped from main dam (ML)	21.7	20.0	23.1
Usage – haul road sprinklers (ML)	6.3	6.2	6.3
Usage – asphalt plant (ML)	0.1	0.1	0.1
Usage – process/product water (ML)	15.4	13.3	16.9
Average daily stored volume (ML)	**0.79**	**0.49**	**1.0**

The attached Figure 7 shows the estimated future daily storage volumes in the tank for the entire model period. Based on the water usage assumptions described above, the modelling suggests that, throughout the modelling period the minimum water level in the rain tank prior to weekly top-up will be 0.49 ML. Once the recommendations detailed in the water balance for the existing quarry operations are implemented, the estimates for future operations will be refined and modelling revised accordingly.

5.2 Southern catchment

The southern catchment water balance has been undertaken to estimate catchment discharge volumes at (proposed) LPD3. Collection and storage of water within the catchment is intended to be temporary only to satisfy water quality treatment requirements. If, following future expansion of the southern quarry pit, a more permanent water storage for re-use within the southern pit is required, this will be provided separately and in addition to the temporary sedimentation basin. In that case, the water balance modelling will be updated accordingly.

5.2.1 Southern catchment sedimentation basin

As noted above, under existing site conditions the southern pit provides a sedimentation basin function for treating runoff from the entire southern catchment. It is anticipated that when the southern pit expansion is undertaken as part of the future quarry operation, a sedimentation basin will be constructed within the southern pit, to limit the inundated area following rainfall events and allow quarry operations to return to normal as soon as possible after the event (whilst treatment and discharge of the collected water is taking place. A summary of the annual water balance results for the future South Pit sedimentation basin is presented in Table 5.2.1.1.

Table 5.2.1.1 Southern catchment sedimentation basin – annual volumes

Parameter	Average year	Minimum	Maximum
Rainfall volume – total South Pit catchment area (ML)	72.3	42.5	113.0
Runoff volume – total South Pit catchment area (ML) [a]	40.5	21.8	71.0
Total basin inflow (ML)	40.7	21.9	71.3
Evaporative losses (ML)	0.09	0.03	0.29
Seepage losses (ML)	0.36	0.09	1.08
Discharge – pumped out to LPD3	40.3	21.8	70.7

[a] Total runoff that expected to have been generated and discharged from equivalent catchment area if no obstructions (i.e. quarry pit) were present. Estimate provided for comparison to estimated discharge pumped to (proposed) LPD3.

On average, it is estimated that total catchment discharge from the South Pit catchment area will be comparable to the discharge for the same catchment area prior to the quarry operations.

A summary of the estimated sedimentation basin performance is provided in Table 5.2.1.2.

Table 5.2.1.2 Southern catchment sedimentation basin performance

Parameter	Average year	Minimum	Maximum
Total number of days discharging to LPD	188	149	223
Total number of days per year when basin contains water [a]	18	8	31
Maximum number of consecutive days where basin contains water	4.2	3	10
Average number of days to empty basin	1.7	1.4	2.1

[a] Total number of days containing water has been calculated based on end-of-day volumes after all losses and discharges have been accounted for. More frequent wetting and drying during small events is expected and is accounted for by losses and/or immediate discharge.

5.3 South-western catchments

The south-western catchment water balance has been undertaken to estimate catchment discharge volumes at LPD1. Collection and storage of water within these catchments is intended to be temporary only to satisfy water quality treatment requirements.

5.3.1 South-western catchment 1 – sedimentation basin SW1

A summary of the annual water balance results for the catchment SW1 sedimentation basin is presented in Table 5.3.1.1.

Table 5.3.1.1 Sedimentation basin SW1 – annual volumes

Parameter	Average year	Minimum	Maximum
Rainfall volume – total SW1 catchment area (ML)	6.6	3.9	10.4
Runoff volume – total SW1 catchment area (ML) [a]	3.7	2.0	6.5
Total basin inflow (ML)	3.7	2.0	6.6
Evaporative losses (ML)	0.02	0.01	0.04
Seepage losses (ML)	0.08	0.03	0.15
Discharge to LPD1 (pumped and overflow)	3.7	2.0	6.5

[a] Total runoff that expected to have been generated and discharged from equivalent catchment area if no obstructions (i.e. sedimentation basin) were present. Estimate provided for comparison to estimated catchment discharge pumped to LPD1.

On average, it is estimated that total catchment discharge from the SW1 catchment area is comparable to the discharge for the same catchment area prior to the quarry operations.

A summary of the estimated sedimentation basin performance is provided in Table 5.3.1.2.

Table 5.3.1.2 Sedimentation basin SW1 performance

Parameter	Average year	Minimum	Maximum
Total number of days discharging to LPD	196	155	235
Total number of days of overflow	4	0	14
Total number of days per year when pit contains water [a]	44	19	79
Maximum number of consecutive days where pit contains water	9.6	5	18
Average number of days to empty pit	3.7	2.1	6.2

[a] Total number of days containing water has been calculated based on end-of-day volumes after all losses and discharges have been accounted for. More frequent wetting and drying during small events is expected and is accounted for by losses and/or immediate discharge.

The model inputs (basin volumes and pumping rates) dictate that the sedimentation basin will be emptied within 5-days of the cessation of all rainfall events up to and including the 5-day design rainfall event of 60.2mm.

Where rainfall exceeds the design capacity of the system, the basin will overflow at the same time as controlled discharge is taking place. Where a rainfall event continues for more than the 5-day design event duration, the basin is expected to contain water for a longer period whilst active discharge is taking place, as demonstrated by the results above.

5.3.2 South-western catchment 2 – sedimentation basin SW2

A summary of the annual water balance results for the catchment SW1 sedimentation basin is presented in Table 5.3.2.1.

Table 5.3.2.1 Sedimentation basin SW2 – annual volumes

Parameter	Average year	Minimum	Maximum
Rainfall volume – total SW2 catchment area (ML)	26.9	15.8	42.0
Runoff volume – total SW2 catchment area (ML) [a]	15.0	8.1	26.4
Total basin inflow (ML)	15.2	8.2	26.7
Evaporative losses (ML)	0.10	0.05	0.18
Seepage losses (ML)	0.37	0.16	0.69
Discharge to LPD1 (pumped and overflow)	14.7	7.9	26.4

[a] Total runoff that expected to have been generated and discharged from equivalent catchment area if no obstructions (i.e. sedimentation basin) were present. Estimate provided for comparison to estimated catchment discharge pumped to LPD1.

On average, it is estimated that total catchment discharge from the SW2 catchment area to LPD 1 will be reduced by approximately 2 percent as a result of the future quarry operations (when compared to the same undeveloped catchment area). This reduction is the result of evaporative and seepage losses during the temporary storage and controlled discharge of water for treatment in the sedimentation basin.

A summary of the estimated sedimentation basin performance is provided in Table 5.3.2.2.

Table 5.3.2.2 Sedimentation basin SW2 performance

Parameter	Average year	Minimum	Maximum
Total number of days discharging to LPD	195	155	234
Total number of days of overflow	4	0	14
Total number of days per year when pit contains water [a]	43	19	79
Maximum number of consecutive days where pit contains water	9.6	5	18
Average number of days to empty pit	3.7	2.1	6.2

[a] Total number of days containing water has been calculated based on end-of-day volumes after all losses and discharges have been accounted for. More frequent wetting and drying during small events is expected and is accounted for by losses and/or immediate discharge.

The model inputs (basin volumes and pumping rates) dictate that the sedimentation basin will be emptied within 5 days of the cessation of all rainfall events up to and including the 5-day design rainfall event of 60.2 mm.

Where rainfall exceeds the design capacity of the system, the basin will overflow at the same time as controlled discharge is taking place. Where a rainfall event continues for more than the 5-day design event duration, the basin is expected to contain water for a longer period whilst active discharge is taking place, as demonstrated by the results above.

5.4 Water supply and security

Under the modelled 'future quarry footprint' scenario, the Main Dam in the North Pit is used to provide all water supply requirements for the site and as such, no imported clean (mains) water will be relied upon or needed for any future operational uses on site. Though the form of the dam will likely change as excavation within the pit deepens, for modelling purposes, it has been assumed that the Main Dam will maintain capacity of 30 ML at full storage. As detailed in Section 5.1.2, throughout the entire 20-year model period, the available volume of water stored in the dam is estimated not to fall below 26.4 ML (or 88 percent of capacity). With an average daily water usage across the site of 183.6 kL, this approximates to 144 days (greater than 4 months) of additional water supply available at all times throughout the modelling period.

Figure 6 (in Attachment 2) shows the estimated available storage levels throughout the model period, whilst Table 5.4.1 provides a summary of the frequency of availability of different supply levels (on a daily timestep basis) throughout the model period.

Table 5.4.1 Daily water supply availability – Main Dam

Main Dam storage volume (ML)	Percent of full storage (%)	Proportion of time storage level exceeded (%)
0	0	100.0%
3.0	10	100.0%
6.0	20	100.0%
9.0	30	100.0%
12.0	40	100.0%

Main Dam storage volume (ML)	Percent of full storage (%)	Proportion of time storage level exceeded (%)
15.0	50	100.0%
18.0	60	100.0%
21.0	70	100.0%
24.0	80	100.0%
25.5	85	100.0%
27.0	90	99.5%
28.5	95	95.8%
30.0	100	20.8%
31.5	105	0.0%

6 Recommendations

6.1 Existing quarry operations

It is recommended that the following actions be undertaken to better quantify water movements within the site and improve water balance estimates in the future:

- Install an automated weather station to record daily climate observations.
- Keep a daily log of all water truck activity.
- Install a flow meter on the outlet of the main tank to record/quantify water usage (data to be recorded on a daily basis).
- Monitor the installed level markers within each of the sedimentation basins to ensure they have suitable capacity for rain events.
- Keep a daily log (at the same time each day) of observed water levels within the main dam. Alternatively, an automated level logger can be installed.
- Install (or have readily available) pumps of sufficient capacity to discharge from each of the four sedimentation basins. Separate pumps will be available for each of the basins to ensure timely discharge of runoff.
- Pumps will be tested at minimum monthly intervals (during prolonged dry periods when not in use) to ensure they are maintained in working order for future rainfall events. All testing and maintenance activities will be recorded on site.
- Make all collected data available for inclusion in future model revisions.
- Revision of the water balance modelling in 12 months to improve estimates based on site recordings and observations.

6.2 Future quarry operations

It is recommended that the following actions be undertaken at a suitable time in the future to improve water balance estimates in the future:

- Continue with all recording and logging activities as described above.
- When the sedimentation basins within the northern or southern pit change due to progressing extraction, undertake detailed ground survey to establish a stage-area-storage relationship for the basin to ensure adequate treatment capacity. Install level markers within these sedimentation basin/s to mark the top of the sediment storage zone and incremental water levels above this point up to full settling zone capacity.
- Once the northern pit reaches an extraction depth of 87.5mAHD the volumes of the groundwater inflows to the pit is to be monitored, estimated and reported.
- Once the southern pit reaches an extraction depth of 113mAHD the volumes of the groundwater inflows to the pit is to be monitored, estimated and reported.
- Install (or have readily available) pumps of sufficient capacity to discharge from each of the four sedimentation basins. Separate pumps will be available for each of the basins to ensure timely discharge of runoff.
- Revision of the water balance modelling in conjunction with any significant changes to site operations (e.g. modified water storage structures, changes to the contributing catchment areas or drainage regime, excavation recommencing within the South Pit, excavation below 87.5mAHD in the northern pit and 113mAHD in the southern pit etc.).

7 Reporting requirements

7.1 Annual water balance reporting

An annual water balance report is to be prepared as part of the Annual Return for the quarry. The annual report is to include details of:

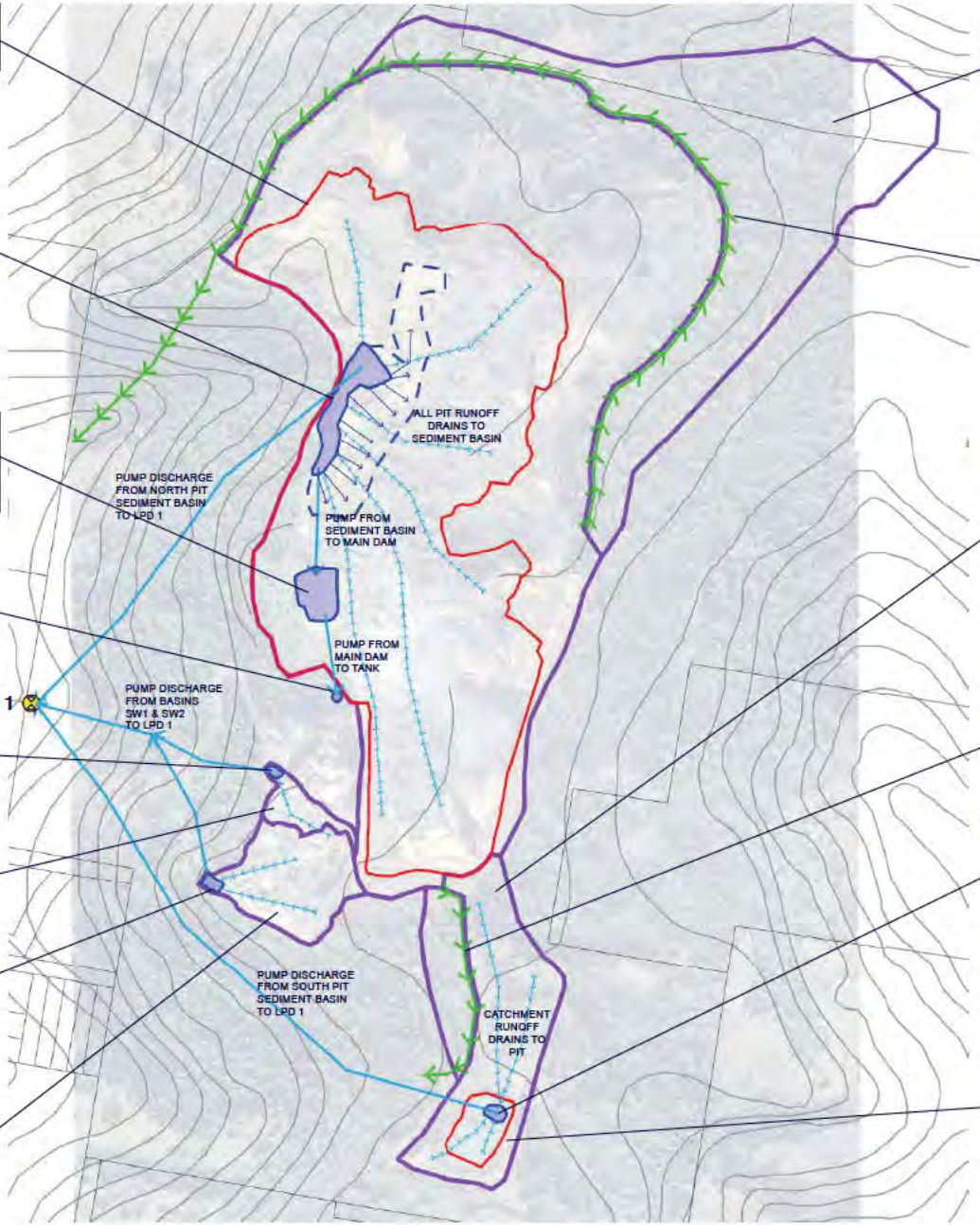
- Daily climate observations recorded at on-site weather station.
- Daily water truck activity (number of loads filled/used, truck capacity per load)
- Daily usage from water tank.
- Recorded water levels in all sedimentation basins based on installed level markers.
- Recorded water levels for the main dam (daily time step or logger data).
- Details of all water releases from all on-site sedimentation basins following rain events (time to which pumping commences based on water quality results, pump rates, duration of pumping, time until dry).
- Copies of records for testing and maintenance activities for all onsite water pumps.
- Records of material/product exports from the site.
- Once the northern pit reaches an extraction depth of 87.5 mAHD the volumes of the groundwater inflows to the pit is to be monitored, estimated and reported.
- Once the southern pit reaches an extraction depth of 113 mAHD the volumes of the groundwater inflows to the pit is to be monitored, estimated and reported.
- Annual water balance modelling to reflect actual practices during reporting year based on site recordings and observations.

7.2 Revised site water balance

This report, *'Site Water Balance, Blakebrook Quarry, Blakebrook, New South* Wales' is to be reviewed and revised periodically to reflect planned and actual changes to water management practices on the site, including, but not limited to:

- Upon completion of construction, and following as-constructed survey of, the sedimentation basin in catchment SW2 (if constructed basin form differs from the assumptions contained within this report).
- Upon approval of the proposed additional discharge points currently under application under EPL 3384.
- At any time where there are changes (proposed or actual) to the form of any water storage devices on site (e.g. north pit sedimentation basin changes to allow for increase excavation depth, south pit sediment basin construction when works in south pit recommence).
- In support of any application for changes to the current licence for the site (where the proposed licence changes involve any changes to the water management practices, water storages or any activity that influences on-site water use).
- If observed/recorded water usage (eg. water truck movements, volumes of water used from tank) on site within any annual return period differs by greater than 15 percent from the estimates contained within this report (after accounting for rainfall variability).
- If observed/recorded groundwater inflows (once intercepted) in either pit differ by greater than 15 percent from the estimates contained within this report.

8 Attachment 1 – Drawings



NORTH PIT
Area = 21.6 ha
Notes:
1. All pit runoff directed to sediment basin.

NORTHERN SEDIMENT BASIN
Existing basin area = 0.401 ha
Storage volume in existing basin = 2.517 ML
Required total storage volume = 26.7 ML (incl. ponding across pit floor)
- Settling zone volume = 17.8 ML
- Sediment storage capacity = 8.9 ML
Notes:
1. Storage capacity is to be provided through ponding across floor of quarry once sediment basin fills
2. Following rainfall event, basin to be tested & treated (if necessary) to meet discharge requirements.
3. Treated water is pumped from basin to dam (until dam fills).
4. Excess discharge to be pumped to LPD 2.
5. Basin is to be treated and pumped out to permanent storage level within 5-days of rainfall event and to remain at (or below) permanent storage level at all other times.
6. The permanent storage level to be identified with a marker at approximately 111.5 mAHD.

MAIN WATER STORAGE DAM
Area = 0.292ha (approx.)
Estimated volume = 30 ML
Usage:
- Water tank top-up
- Water cart for dust supression

WATER TANK
Volume = 1 ML
Usage:
- Asphalt plant
- Haul road sprinklers (dust supression)
- Product water (4% by weight)

SEDIMENT BASIN SW1
Area = 232 m²
Total volume = 0.322 ML
Settling zone volume = 0.214 ML
Sediment storage capacity = 0.107 ML
Notes:
1. Basin discharge is to be pumped to LPD 1.
2. Collected water is to be tested, treated and released within 5-days of rainfall event.
3. Basin to remain dry at all other times.

SOUTH WESTERN CATCHMENT 1
Area = 0.449 ha
Catchment runoff drains to sediment basin SW1

SEDIMENT BASIN SW2 (UNDER CONSTRUCTION)
Required total volume = 1.297 ML
Settling zone volume = 0.865 ML
Sediment storage capacity = 0.432 ML
Notes:
1. Basin discharge is to be pumped to LPD 1.
2. Collected water is to be tested, treated and released within 5-days of rainfall event.
3. Basin to remain dry at all other times.

SOUTH WESTERN CATCHMENT 2
Area = 1.818 ha
Catchment runoff drains to sediment basin SW2

NORTHERN CATCHMENT
Total area = 48.7 ha
Area draining to pit = 37.4 ha
Undisturbed area diverted around pit = 11.3 ha
Note:
1. All runoff from undisturbed area to be collected in clean water diversion drain and diverted around pit to natural catchment discharge point.

CLEAN WATER DIVERSION DRAIN

SOUTHERN CATCHMENT
Total area = 4.8ha
Area draining to pit = 3.7 ha
Undisturbed area diverted around pit = 1.1 ha
Note:
1. All runoff from undisturbed area to be collected in clean water diversion drain and diverted west to existing ephemeral gully.

CLEAN WATER DIVERSION DRAIN

SOUTHERN SEDIMENT BASIN (UTILISES SOUTH PIT)
Required total storage volume = 2.67 ML
Settling zone volume = 1.78 ML
Sediment storage capacity = 0.89 ML
Notes:
1. Storage capacity is to be provided through ponding across floor of quarry.
2. Following rainfall event, basin to be tested & treated (if necessary) to meet discharge requirements.
3. Treated water is pumped from pit to LPD3.
4. Pit is to be pumped out within 5-days of rainfall event and to remain dry at all other times.

SOUTH PIT
Area = 0.5ha

ORIENTATION

SCALE
100 200 metres

ROBINA
PO Box 4115 Robina QLD4230 07 5578 9944
Email robina@access.gs www.access.gs

LEGEND
- Catchment boundary
- Quarry pit (existing)
- Discharge point
- Sediment basins / water storage
- Clean water diversion drain

SOURCES
Image source: Google Earth Pro
Image dates: 6 June 2016

PROJECT
BLAKEBROOK QUARRY SOIL AND WATER MANAGEMENT PLAN

CLIENT
LISMORE CITY COUNCIL

DRAWING
EXISTING QUARRY FOOTPRINT WATER MANAGEMENT

SCALE	DATE	DRAWN	CHECKED	PROJECT	DRAWING	REVISION
1:6,250@A3	12/12/2018	AJF	CMA	11737	004	A

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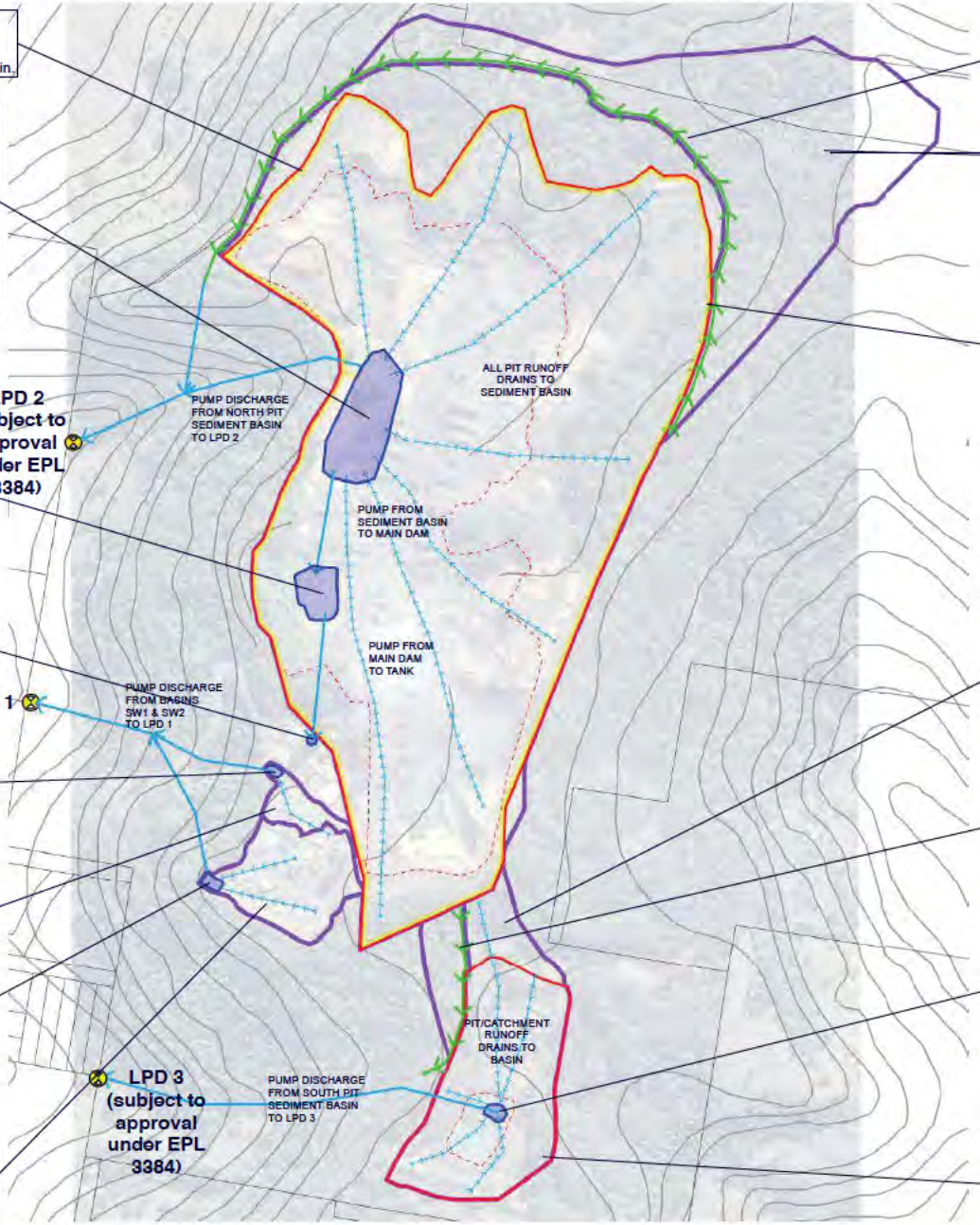

NORTH PIT
Area = 36.7 ha
Notes:
1. All pit runoff directed to sediment basin.

NORTHERN SEDIMENT BASIN
Area = 0.980 ha
Required storage volume = 29.4 ML
- Settling zone volume = 19.6 ML
- Sediment storage capacity = 9.8 ML
Notes:
1. Following rainfall event, basin to be tested & treated (if necessary) to meet discharge requirements.
2. Treated water is pumped from basin to dam (until dam fills).
3. Excess discharge to be pumped to LPD 2.
4. Basin is to be treated and pumped out within 5-days of rainfall event and to remain at (or below) nominated permanent storage level at all other times.
5. The permanent storage level to be identified with a marker.

MAIN WATER STORAGE DAM
Area = 0.292ha (approx.)
Estimated volume = 30 ML
Usage:
- Water tank top-up
- Water cart for dust supression

WATER TANK
Volume = 1 ML
To be relocated outside quarry expansion
Usage:
- Asphalt plant
- Haul road sprinklers (dust supression)
- Product water (4% by weight)

SEDIMENT BASIN SW1
Area = 232 m²
Total volume = 0.322 ML
- Settling zone volume = 0.214 ML
- Sediment storage capacity = 0.107 ML
Notes:
1. Basin discharge is to be pumped to LPD 1.
2. Collected water is to be tested, treated and released within 5-days of rainfall event.
3. Basin to remain dry at all other times.

SOUTH WESTERN CATCHMENT 1
Area = 0.442 ha
Catchment runoff drains to sediment basin SW1

SEDIMENT BASIN SW2
Total volume = 1.297 ML
- Settling zone volume = 0.865 ML
- Sediment storage capacity = 0.432 ML
Notes:
1. Basin discharge is to be pumped to LPD 1.
2. Collected water is to be tested, treated and released within 5-days of rainfall event.
3. Basin to remain dry at all other times.

SOUTH WESTERN CATCHMENT 2
Area = 1.817 ha
Catchment runoff drains to sediment basin SW2

CLEAN WATER DIVERSION DRAIN

NORTHERN CATCHMENT
Total area = 50.7 ha
Area draining to pit = 41.2 ha
Undisturbed area diverted around pit = 9.5 ha
Note:
1. All runoff from undisturbed area to be collected in clean water diversion drain and diverted around pit to LPD2.

GROUNDWATER
Inflows collected in perimeter drain and conveyed to sediment basin
Estimated inflow = 190 kL/day

SOUTHERN CATCHMENT
Total area = 5.7ha
Area draining to pit = 4.9 ha
Undisturbed area diverted around pit = 0.8 ha
Note:
1. All runoff from undisturbed area to be collected in clean water diversion drain and diverted west to existing ephemeral gully.

CLEAN WATER DIVERSION DRAIN

SOUTHERN SEDIMENT BASIN (NEW BASIN INSIDE PIT)
Required total storage volume = 3.49 ML
- Settling zone volume = 2.33 ML
- Sediment storage capacity = 1.16 ML
Notes:
1. Following rainfall event, basin to be tested & treated (if necessary) to meet discharge requirements.
2. Treated water is pumped from pit to LPD3.
3. Pit is to be pumped out within 5-days of rainfall event and to remain dry at all other times.

SOUTH PIT
Area = 4.1ha
Notes:
1. All pit runoff directed to sediment basin.

ORIENTATION

SCALE
50 100 150 200 250 metres

ROBINA
PO Box 4115 Robina QLD4230 07 5578 9944
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LEGEND
- Catchment boundary
- Quarry pit (future)
- Quarry pit (existing)
- Discharge point
- Clean water diversion drain
- Sediment basins / water storage
- Perimeter drain (groundwater inflows)

SOURCES
Image source: Google Earth Pro
Image dates: 6 June 2016

NOTES
1. LPD1 is currently the only licenced discharge point for the site.
2. An application has been lodged for approval of LPD2 and LPD3 as additional licensed discharge points under EPL 3384.
3. Until LPD2 and LPD3 are approved under EPL 3384, all site discharge is to be directed to LPD1.

PROJECT	CLIENT	DRAWING
BLAKEBROOK QUARRY	LISMORE CITY COUNCIL	FUTURE QUARRY FOOTPRINT WATER MANAGEMENT

SCALE	DATE	DRAWN	CHECKED	PROJECT	DRAWING	REVISION
1:6,250@A3	13/02/2019	AJF	CMA	11737	005	B

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9 Attachment 2 – Figures

Figure 1 – North Pit catchment water balance

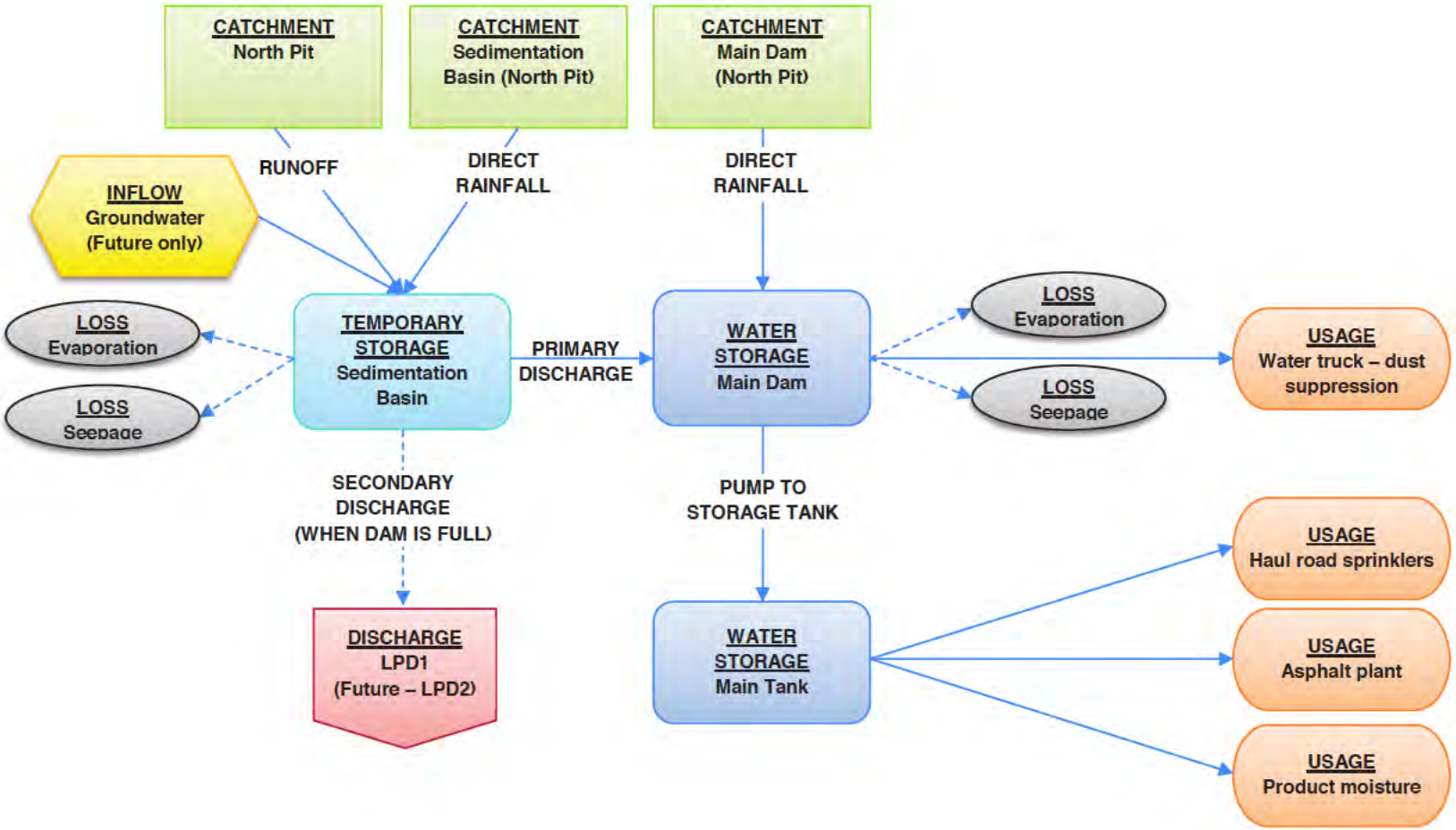


Figure 2 – South Pit catchment water balance

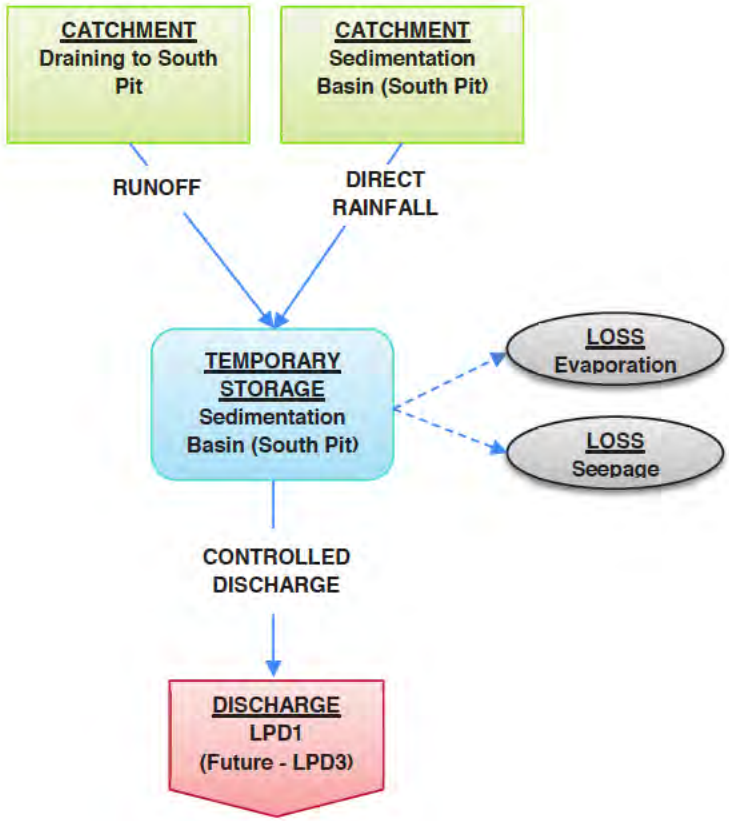


Figure 3 – South Western catchments water balance

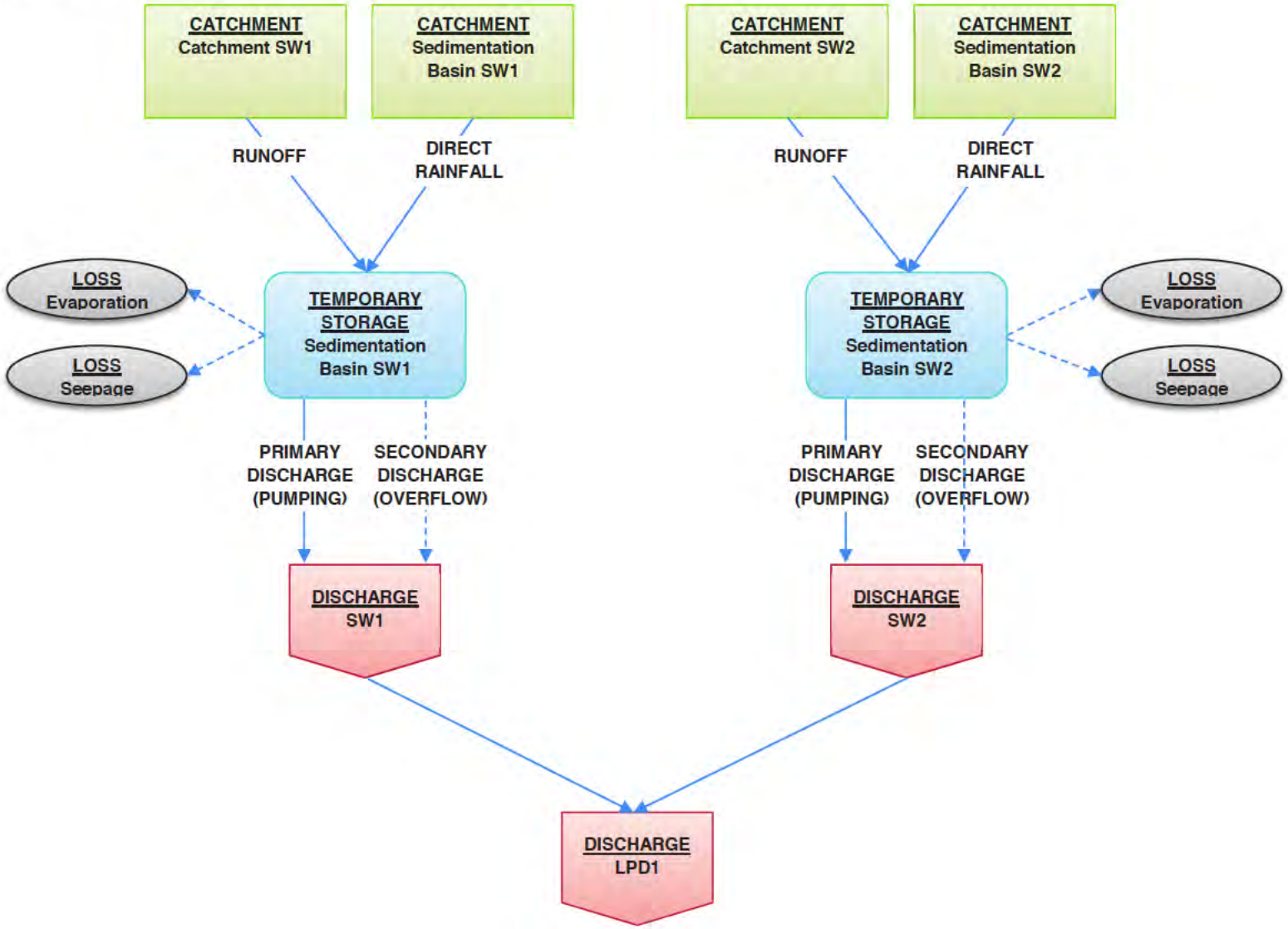


Figure 4 - Main Dam water balance for Existing Quarry Footprint

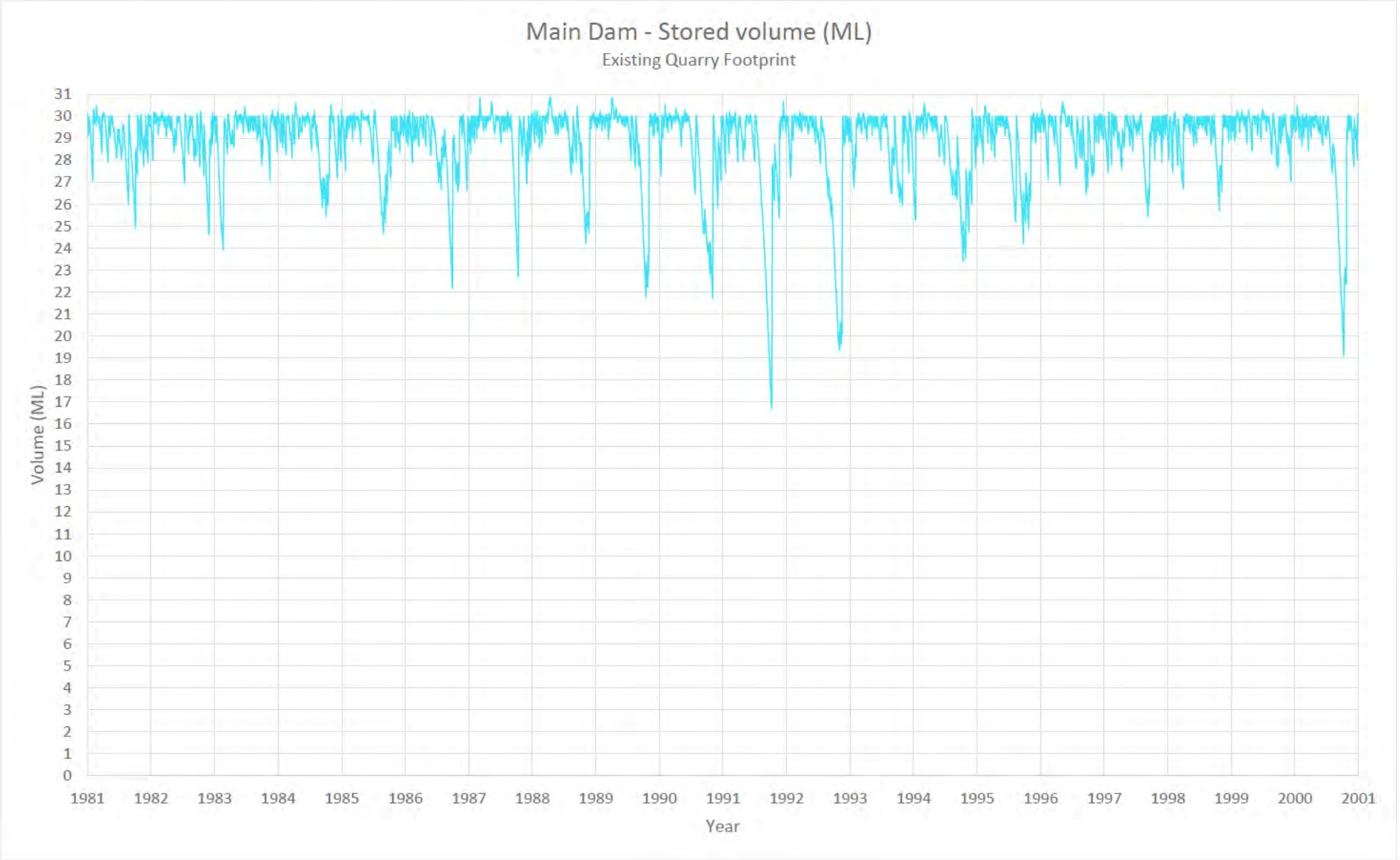


Figure 5 - Main Tank water balance for Existing Quarry Footprint

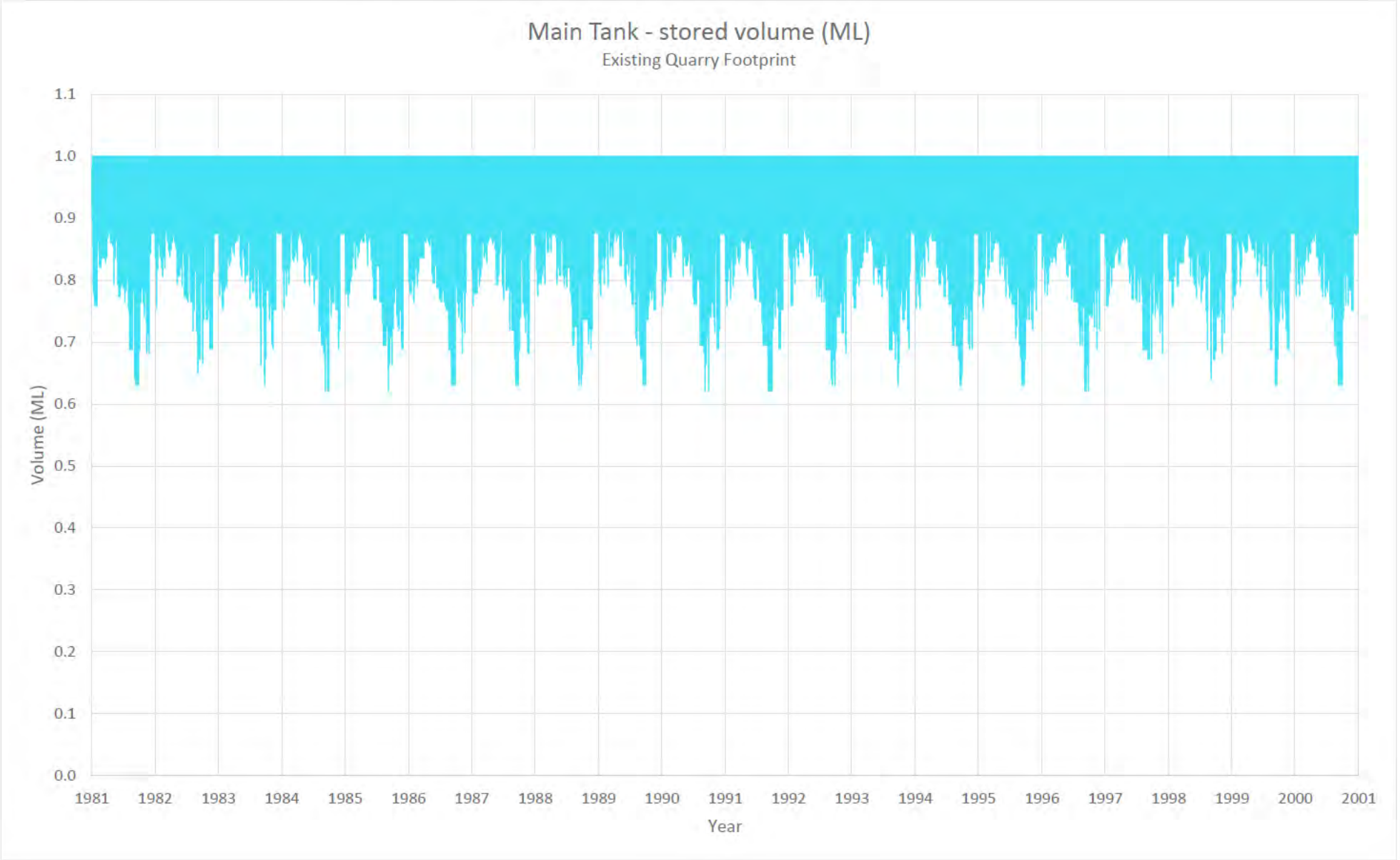


Figure 6 - Main Dam water balance for Future Quarry Footprint

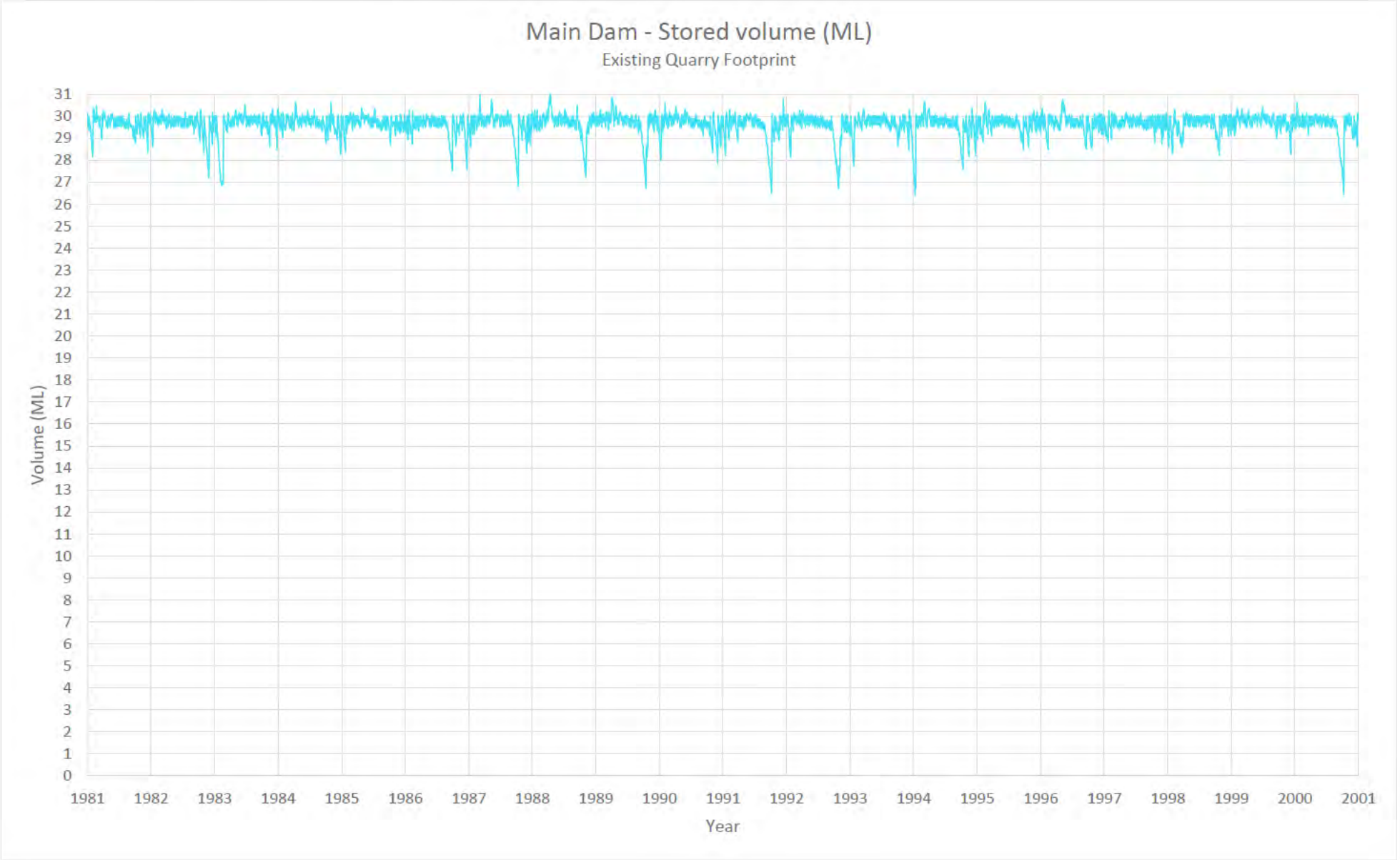
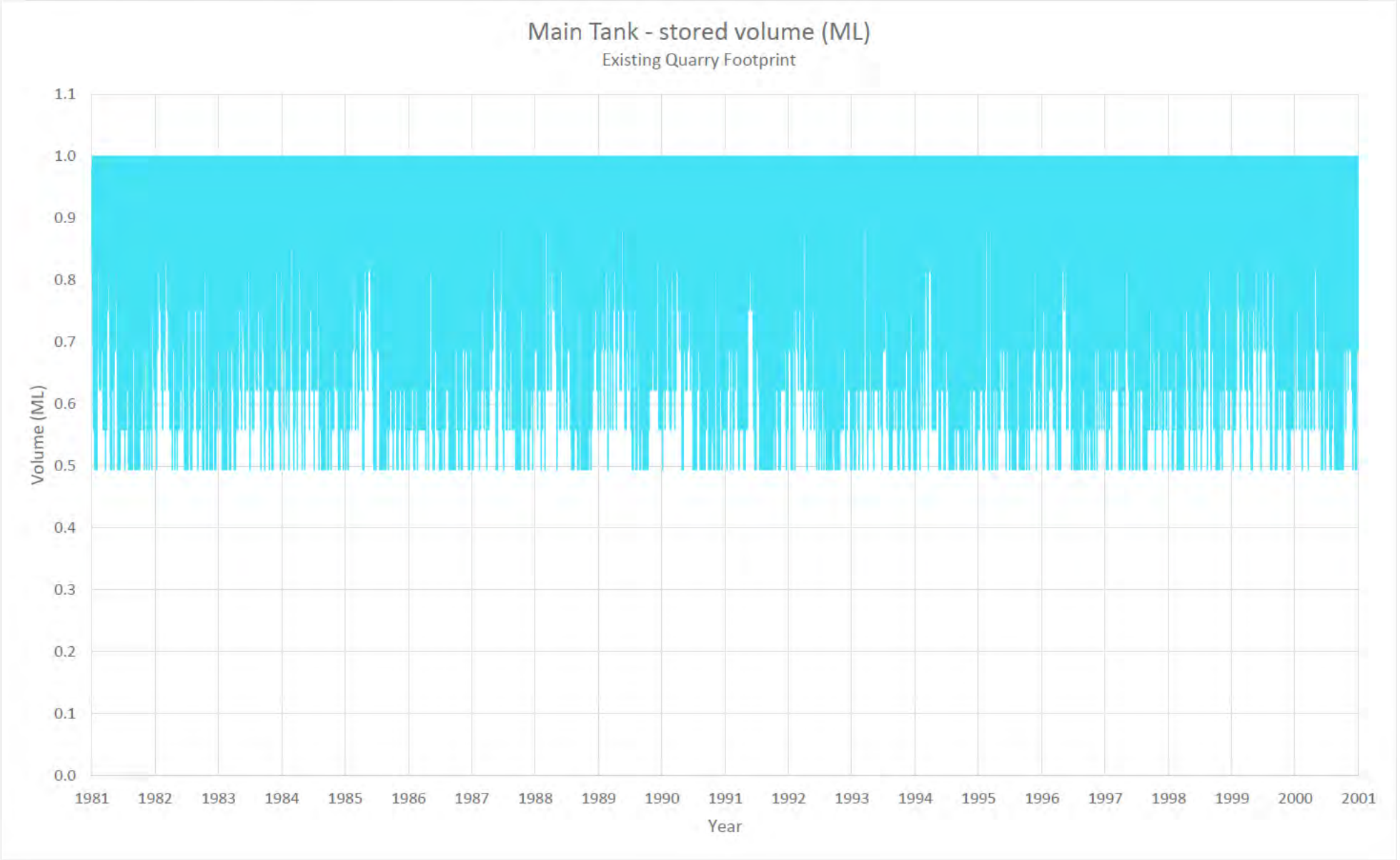


Figure 7 - Main Tank water balance for Future Quarry Footprint



RESULTS OF WATER ANALYSIS

12 samples collected for Ground Water Data Colelction Service on the 7th December, 2018 - Lab. Job No. H6673

Analysis requested by [redacted]. Your Project: PO 68163 Blakebrook Quarry - GW and SW

2 Tildon Drive CLUNES NSW 2480

Parameter	Methods reference	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
		BQS1-S	BQS1-I	BQS1-D	BQN1-B	BQN1-A
	Job No.	*H6673/1*	*H6673/2*	*H6673/3*	*H6673/4*	*H6673/5*
pH	APHA 4500-H⁺-B	6.84	8.16	8.29	7.04	9.7
Conductivity (EC) (dS/m)	APHA 2510-B	0.45	1.554	1.777	1.126	1.917
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	306	1057	1208	766	1304
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	252	448	264	20.5	151
Turbidity (NTU)	APHA 2130	..	..	..	..	..
Dissolved Oxygen (mg/L O_2)	Onsite	..	..	..	..	..
Alkalinity (mg/L CaCO3)	** Total Alkalinity - APHA 2320	..	..	..	..	..
Total Oils and Grease (mg/L)	APHA 5520-D (hexane extractable)	<2	<2	<2	<2	<2
Nitrate (mg/L N)	APHA 4500 NO_3^--F	0.03	<0.005	0.075	<0.005	0.374
Silver (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001	<0.001	<0.001	<0.001
Aluminium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.487	0.804	0.356	<0.005	0.952
Arsenic (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	0.001	0.001	0.003	0.001
Cadmium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.001	0.001	0.001	<0.001	0.004
Copper (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.004	0.006	0.005	<0.001	0.006
Iron (mg/L)	Total - APHA 3125 ICPMS*note 1&2	2.627	4.888	1.102	1.705	0.940
Manganese (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.151	0.157	0.049	0.148	0.066
Nickel (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.008	0.007	0.010	<0.001	0.004
Lead (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.002	0.004	0.004	<0.001	0.001
Selenium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.002	<0.002	<0.002	<0.002	<0.002
Zinc (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.043	0.142	0.048	0.003	0.016
Mercury (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Silver (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Aluminium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Arsenic (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Cadmium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Chromium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Copper (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Iron (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Manganese (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Nickel (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Lead (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Selenium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Zinc (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Mercury (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
BTEX						
Benzene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
m+p-Xylene (µg/L or ppb)	Subcontracted: SGS report SE187233	<1	<1	<1	<1	<1
o-Xylene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Total Recoverable Hydrocarbons (TRH)						
C6-C9 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<40	<40	<40	<40	<40
C10-C14 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<50	<50	<50	<50	<50
C15-C28 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<200	<200	<200	<200	<200
C29-C36 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<200	<200	<200	<200	<200
C10-C16 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<60	<60	<60	<60	<60
C16-C34 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<500	<500	<500	<500	<500
C34-C40 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<500	<500	<500	<500	<500

Notes:

1. Total metals - samples digested with nitric acid; Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to pH <2
   Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
2. Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
3. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre) = 1000 ppb (part per billion).
4. For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
5. Analysis performed according to APHA (2017) 'Standard Methods for the Examination of Water & Wastewater', 23rd Edition, except where stated otherwise.
6. Analysis conducted between sample arrival date and reporting date.
7. ** NATA accreditation does not cover the performance of this service.
8. .. Denotes not requested.
9. This report is not to be reproduced except in full.

[redacted]

Laboratory Manager

RESULTS OF WATER ANALYSIS

12 samples collected for Ground Water Data Colelction Service on the 7th December, 20
Analysis requested by [redacted]. Your Project: PO 68163 Blakebrook Quarry - GW a
2 Tildon Drive CLUNES NSW 2480

Parameter	Methods reference	Sample 6	Sample 7	Sample 8	Sample 9	Sample 10
		BQN1-D	BQN2-B	BQN2-A	BQN2-D	BQSW1
	Job No.	*H6673/6*	*H6673/7*	*H6673/8*	*H6673/9*	*H6673/10*
pH	APHA 4500-H*-B	8.9	9.21	8.01	8.92	7.47
Conductivity (EC) (dS/m)	APHA 2510-B	1.413	1.149	1.54	0.965	0.906
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	961	781	1047	656	616
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	88.5	16.5	344	470	223
Turbidity (NTU)	APHA 2130	..	..	..	..	67
Dissolved Oxygen (mg/L O_2)	Onsite	..	..	..	..	0.17
Alkalinity (mg/L CaCO3)	** Total Alkalinity - APHA 2320	..	..	..	..	..
Total Oils and Grease (mg/L)	APHA 5520-D (hexane extractable)	<2	2	3	3	3
Nitrate (mg/L N)	APHA 4500 NO_3^--F	0.096	0.068	0.023	0.073	<0.005
Silver (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001	<0.001	<0.001	<0.001
Aluminium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	1.112	0.094	0.451	0.228	0.324
Arsenic (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.004	0.003	0.005	0.002	0.004
Cadmium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.005	<0.001	<0.001	<0.001	<0.001
Copper (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.119	0.002	0.007	0.005	0.002
Iron (mg/L)	Total - APHA 3125 ICPMS*note 1&2	4.069	0.059	1.484	1.526	5.470
Manganese (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.074	0.013	0.110	0.036	8.272
Nickel (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.010	0.001	0.009	0.003	0.004
Lead (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.001	<0.001	0.002	0.002	<0.001
Selenium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.002	<0.002	<0.002	<0.002	<0.002
Zinc (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.066	0.004	0.020	0.057	0.011
Mercury (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Silver (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.001
Aluminium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	0.005
Arsenic (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	0.003
Cadmium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.001
Chromium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.001
Copper (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.001
Iron (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	1.064
Manganese (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	8.461
Nickel (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	0.002
Lead (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.001
Selenium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.002
Zinc (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	0.016
Mercury (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.0005
BTEX						
Benzene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
m+p-Xylene (µg/L or ppb)	Subcontracted: SGS report SE187233	<1	<1	<1	<1	<1
o-Xylene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Total Recoverable Hydrocarbons (TRH)						
C6-C9 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<40	<40	<40	<40	<40
C10-C14 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<50	<50	<50	<50	<50
C15-C28 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<200	<200	<200	<200	<200
C29-C36 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<200	<200	<200	<200	<200
C10-C16 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<60	<60	<60	<60	<60
C16-C34 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<500	<500	<500	<500	<500
C34-C40 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<500	<500	<500	<500	<500

Notes:

1. Total metals - samples digested with nitric acid; Total available (acid soluble/ ex
   Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidifie
2. Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS
3. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per l
4. For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
5. Analysis performed according to APHA (2017) 'Standard Methods for the Examinatior
6. Analysis conducted between sample arrival date and reporting date.
7. ** NATA accreditation does not cover the performance of this service.
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[redacted]
Laboratory Manager

RESULTS OF WATER ANALYSIS

12 samples collected for Ground Water Data Colelction Service on the 7th December, 20
Analysis requested by [redacted]. Your Project: PO 68163 Blakebrook Quarry - GW a
2 Tildon Drive CLUNES NSW 2480

Parameter	Methods reference	Sample 11 BQSW2	Sample 12 BQSW3
	Job No.	*H6673/11*	*H6673/12*
pH	APHA 4500-H⁺-B	7.63	7.72
Conductivity (EC) (dS/m)	APHA 2510-B	0.203	0.2
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	138	136
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	10.5	11
Turbidity (NTU)	APHA 2130	10.9	10.9
Dissolved Oxygen (mg/L O_2)	Onsite	7.32	8.16
Akalinity (mg/L CaCO3)	** Total Alkalinity - APHA 2320	..	..
Total Oils and Grease (mg/L)	APHA 5520-D (hexane extractable)	3	<2
Nitrate (mg/L N)	APHA 4500 NO_3^--F	<0.005	<0.005
Silver (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Aluminium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.109	0.109
Arsenic (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Cadmium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Chromium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Copper (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.001	0.001
Iron (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.810	0.712
Manganese (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.054	0.061
Nickel (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.001	0.001
Lead (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Selenium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.002	<0.002
Zinc (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.002	0.004
Mercury (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.0005	<0.0005
Silver (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Aluminium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.071	0.069
Arsenic (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Cadmium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Chromium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Copper (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.001	0.001
Iron (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.565	0.505
Manganese (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.015	0.005
Nickel (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.001	0.001
Lead (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Selenium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.002	<0.002
Zinc (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.003	0.003
Mercury (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.0005	<0.0005
BTEX			
Benzene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5
Toluene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5
Ethylbenzene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5
m+p-Xylene (µg/L or ppb)	Subcontracted: SGS report SE187233	<1	<1
o-Xylene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5
Naphthalene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5
Total Recoverable Hydrocarbons (TRH)			
C6-C9 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<40	<40
C10-C14 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<50	<50
C15-C28 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<200	<200
C29-C36 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<200	<200
C10-C16 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<60	<60
C16-C34 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<500	<500
C34-C40 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<500	<500

Notes:

1. Total metals - samples digested with nitric acid; Total available (acid soluble/ ex
   Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidifie
2. Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS
3. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per l
4. For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
5. Analysis performed according to APHA (2017) 'Standard Methods for the Examinatior
6. Analysis conducted between sample arrival date and reporting date.
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Blakebrook Quarry Surface Water sampling Sampling

Station	Date	Time	DO (ppm)	EC uS/cm	Salinity ppm	pH	Eh Redox mV (Ag/AgCl saturated KCL)	Temp deg C
BQSW1	6/12/2018	12:50	0.80	808	360	7.16	133	18.0
BQSW2	6/12/2018	13:20	2.70	204	86	7.18	146	23.3
BQSW3	6/12/2018	13:50	2.80	202	85	7.48	153	24.6

Sample Method	Laboratory Analysis Sample Retained	Comment
Grab	Yes	**Unnamed creek Nimbin Rd culvert near quarry entrance**
Grab	Yes	**Terania Creek**
Grab	Yes	**Terania Creek**

BLAKEBROOK QUARRY

PRELIMINARY WATER QUALITY INVESTIGATION

540 NIMBIN ROAD, BLAKEBROOK NSW 2480

June 2017

Document control

Project Title:	**Blakebrook Quarry** **Preliminary Water Quality Investigation**
Job Number	17041
Document Title	Preliminary Water Quality Investigation
Document number	17041 - Blakebrook Quarry - FINAL
Prepared for	[redacted], Lismore City Council
Prepared by	Ecoteam
Site Assessor and Report Authors	[redacted] BAppSci. [redacted] BAppSci ,MEng.

Revision	**Date**	**Description**	**Report Author/s**	**Internal Review**	**Approved for Issue**
01	07/06/2017	Issued for Review	[redacted]	[redacted]	[redacted]

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EXECUTIVE SUMMARY

Ecoteam has been requested by [redacted], on behalf of Lismore City Council, to undertake a Preliminary Water Quality Investigation on the Blakebrook Quarry. The Quarry is located at 540 Nimbin Road, Blakebrook, approximately 6km North West of Lismore. The property is owned by Lismore City Council and covers approximately 1.267km^2. Lismore City Council undertakes quarterly monitoring of surface water and groundwater as part of NSW EPA licencing requirements. Historical surface water and groundwater monitoring results have identified elevated concentrations of aluminium and other metals in the samples, above Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC Guidelines) and Australian Drinking Water Guidelines.

This report provides information on the rationale for the site investigation, site condition and characteristics and interpretation of previous surface water and groundwater monitoring results. This report also contains recommendations for further investigations as a proactive approach to ongoing management of the Blakebrook Quarry site.

Scope of works – The scope of the Preliminary Water Quality Investigation is to identify possible sources of contamination and any sensitive environmental receptors. Discrete surface water sampling was conducted at four sites in wet weather conditions, and analysed for TSS, total and dissolved aluminium and copper. One discrete groundwater sample was collected from the deep monitoring well at location BQN1 following the major flood event in March and analysed for total and dissolved metals and TSS. Two soil samples were collected based on judgemental sampling and analysed for metals to determine the contribution of geology on local water quality. Results from the discrete sampling of surface water, groundwater and soils were then compared to historical monitoring results and landholder data.

Summary of Sampling Results – Concentrations of both total and dissolved copper were above ANZECC Guidelines in surface water samples. Concentrations of total aluminium, chromium, copper and zinc results were above ANZECC Guidelines in groundwater samples, however, dissolved concentrations of these metals were all below ANZECC Guideline limits. Soil results were all within NEPM Guideline limits.

Conclusions – Elevated concentrations of aluminium and copper in surface water samples is attributed to the local in-situ soils of the Wollongbar landscape which are highly erodible, have high acidity and high aluminium toxicity potential. Elevated concentrations of total metals and suspended solids in groundwater may be attributed to surface water percolating through the surface soils and exposed basalt within the Quarry as well as from naturally occurring soft, muddy soil layers located at various depths. While total metals concentrations are above ANZECC Guideline limits, the discrete sample collected at BQN1-D returned dissolved metal concentrations below the ANZECC Guidelines for Freshwater Aquatic Ecosystems.

Recommendations – We recommend ongoing analysis of total and dissolved metals in groundwater in future monitoring rounds. We also recommend compiling the driller's logs for the five new monitoring wells (installed in 2016) to inform future data analysis and interpretation.

The current site characteristics do not pose a risk to human or environmental health, however, ongoing monitoring and regular interpretation of groundwater results is recommended.

Contents

1. Introduction

1.1. Project Outline

Ecoteam has been requested by [redacted], on behalf of Lismore City Council, to undertake a Preliminary Water Quality Investigation on the Blakebrook Quarry. The scope of the Investigation is to identify any potential contaminants of concern and the any sensitive environmental receptors (NEPC, 2013b). Further, to interpret historical surface water and groundwater monitoring results in relation to local conditions and quarry activities.

This report provides information on the rationale for the site investigation, site condition and characteristics and interpretation of previous surface water and groundwater monitoring results. This report also contains recommendations for further investigations as a proactive approach to ongoing management of the Blakebrook Quarry site.

1.2. Site Identification

Blakebrook Quarry is located on Nimbin Road, 6km from Lismore. **Table 1** contains site details. Refer to **Appendix A** for a detailed site plan of the Investigation Area.

Table 1. **Site details of Blakebrook Quarry.**

Feature	Description
Address	540 Nimbin Road, Blakebrook, NSW 2480
Plan Number	Lot 201 DP 1227138
Local Government Area	Lismore City Council
Geographic Coordinates	153°15'7.53" E, 28° 45'43.74" S
Property Area	Approx. 1.267 km2

1.3. Objectives

The objectives of this assessment are to:

a) Determine the fraction of colloidal versus dissolved (inorganic) metals in surface water and groundwater samples.

b) Identify potential sources of elevated TSS, aluminium and other metals in surface water and groundwater based on soil and water sample results, data from adjacent landowners and background research.

c) Identify potential risks (if any) of the surface water and groundwater quality to human health and the receiving environment.

d) Recommend management strategies (if required) to reduce risk to human health and the environment.

e) Recommend further investigations (if required) to comply with EPA requirements.

f) Document the methodology, results, interpretation and recommendations in a report to be sent to the NSW EPA as a proactive approach to management of the Quarry by LCC.

1.4. Guidelines

The scope of works for this assessment was guided by the following documents.

Reporting requirements:

- Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites (NSW OEH, 2011).
- Guidelines for the Assessment and Management of Groundwater Contamination (NSW EPA, 2007).
- Guidelines for Protection of Groundwater in Australia (AGMCA/ANZECC, 1995).

Sampling design, methods and quality assurance:

- Sampling Design Guidelines (NSW EPA, 1995).
- Schedule B(2) of NEPM – Guidelines on Site Characterisation (NEPC, 2013b).
- Australian Standard AS5667.11:1998. Water quality—sampling. Part 11: Guidance on sampling of groundwater's.
- Australian Standard AS5667.6:1998. Water quality—sampling. Part 6: Guidance on sampling of rivers and streams.

Guideline reference values:

- Schedule B(1) of NEPM – Guideline on the Investigation Levels for Soil and Groundwater (Deriving HILs) (NEPC, 2013a).
- Australian and New Zealand Guidelines for Fresh Water and Marine Quality Volume 1 (ANZECC/ARMCANZ, 2000).
- Australian Drinking Water Guidelines (ADWG) 6, Version 3.3 (NHMRC, 2011).

1.5. Detailed Scope of Works

Desktop Assessment & Project Management

1. Undertake a literature and desktop assessment of soil types and soil landscapes, including sources of Aluminium in local soils.
2. WHS, Quality Assurance and Project Management throughout.

Surface Water Monitoring

1. Collect filtered and non-filtered water samples from all four surface water sampling sites and test for aluminium, copper and TSS.
2. Analyse pH, dissolved oxygen (DO), Conductivity (EC), redox potential (ORP) and temperature in situ.
3. Prepare Chain of Custody paperwork and transport samples to NATA laboratory.
4. Compare results with historical data and the ANZECC Guidelines for freshwater ecosystems (ANZECC/ARMCANZ, 2000).
5. Interpret all water quality results in relation to site characteristics and provide recommendations for future management of the site.

Groundwater Monitoring

Data Collection from adjacent landholders

1. Identify groundwater bores in Blakebrook Quarry area and download all reports from the NSW Office of Water website.
2. Contact landholders to obtain groundwater quality data.
3. Compare results with historical data, the ANZECC Guidelines for freshwater ecosystems (ANZECC/ARMCANZ, 2000) and the Australian Drinking Water Guidelines (ADWG) (NHMRC, 2011).

Groundwater monitoring

1. Measure standing water level at deep well BQN1-D.
2. Collect a groundwater sample using the HydraSleeve method.
3. Collect filtered and non-filtered water samples and test for a suite of metals (as required by EPA) and TSS.
4. Analyse pH, dissolved oxygen (DO), Conductivity (EC), redox potential (ORP) and temperature in situ.
5. Prepare Chain of Custody paperwork and transport samples to NATA laboratory.
4. Compare results with historical data, the ANZECC Guidelines for freshwater ecosystems (ANZECC/ARMCANZ, 2000) and the Australian Drinking Water Guidelines (ADWG) (NHMRC, 2011).
6. Interpret all water quality results in relation to site characteristics and provide recommendations for future management of the site.

Soil Testing

1. Collect two soil samples from within the Quarry area and analyse for a suite of metals including aluminium, copper, nickel, lead and zinc.
2. Compare and interpret results according to Schedule B1 of NEPC – Commercial Health Investigation Levels (HILs) (NEPC, 2013a).

2. Site Conditions

2.1. Topography, geology and hydrology

Table 2 contains a description of the regional topography, geology and hydrogeology.

Table 2. **Topography, geology, soil landscape and hydrogeology**

Feature	Description
Topography	Extremely low to very low undulating rises on plateau surfaces on basalt plateau surfaces.
Geology (NSW Geo Survey, 1969)	Lamington Volcanics: Lismore Basalts – Tertiary basalts, with bole and minor agglomerate.
Soil Landscape (Morand, 1994 & NSW OEH, 2017)	Mapped as Frederick (fr) soil landscape. Contains pockets of associated Krasnozems of the Wollongbar (wo) soil type overlying mottled yellow-brown medium clay C horizon. Wollongbar soil landscape is very strongly acid with high aluminium toxicity potential and moderate (wo1) to high (wo2) erodibility.
Surface water	Several drainage lines flow from the property. Two drainage lines flow west from the property into Terania Creek, approximately 1 km away at the closest point. Another drainage line originates on the property and flows west to Blakebrook Creek to the East, approximately 500m from the closest point.
Groundwater	The subject property forms part of the Richmond River Basin in the *Clarence-Moreton Bay GWMA.*

2.2. Surrounding Land Use

The property is surrounded by farmland on four sides (**Table 3**).

Table 3. **Surrounding Land Use**

Orientation	Land Use
North	RU1 Primary Production
South	RU1 Primary Production
East	RU1 Primary Production / Heavy natural vegetation
West	RU1 Primary Production

2.3. Current Site Conditions

Blakebrook Quarry supplies aggregates, drainage rock, road base, metal dust, basalt and argillite products and fill material for Council operations and local businesses.

A weighbridge is located at the front entrance. Grading, storage and loading facilities are located near the weighbridge. The asphalt plant is located in the south west corner of the property. The main quarry operations occur in the southern and northern areas of the quarry pit. Machinery used for crushing and processing is located on the quarry floor. Unwanted soil material is stockpiled in large bunds on the north eastern corner of the property near groundwater monitoring site BQN1 and also stockpiled near groundwater monitoring site BQN2.

All road surfaces are gravel or dirt. A one way ring road circles the top of the Quarry and two haul roads are used to access the Quarry floor. Unformed stormwater drains are located across the site. Drainage from the materials storage area is directed into a stormwater retention pond near the weighbridge. Surface water collects on the Quarry floor following heavy rain events and discharges via a cut channel near surface water sampling site SW4. There are two stormwater retention ponds also located on the western side of the quarry floor.

Overland flow from the forested area on the north east corner of the property collects in a natural channel near groundwater site BQN1.

Three distinct soil and geological layers are visible on the quarry face – a red-brown topsoil layer, a lighter yellow secondary layer and a fractured basalt rock layer.

2.4. NSW Groundwater Bore Search and Monitoring Well Information

A groundwater bore search was conducted (within the Blakebrook Quarry and also the surrounding area) using the NSW Office of Water groundwater map data system (NSW Office of Water, 2017) (**Appendix A**).

Blakebrook Quarry Site

The locations and characteristics of monitoring wells within the Blakebrook Quarry were determined using the NSW Office of Water Website and also via discussions with Greg Buckler from Lismore City Council. There are nine (9) groundwater bores within the Blakebrook Quarry property boundary (**Table 4**). The groundwater monitoring wells are in three locations with a nest of three wells at each location. The depth of the screen intervals on the groundwater wells ranges from 12 m to 121 m below surface level.

Four groundwater monitoring wells are registered with NSW Office of Water. Five groundwater monitoring wells are not registered with NSW Office of Water and were installed in 2016. (N.B. As of 2016, monitoring bores no longer need to be registered).

Table 4. **Groundwater Monitoring Wells within Blakebrook Quarry property boundary.**

Site Name	Site Code	Well Number	Depth (m)	Screen Interval (m)	NSW Office of Water Reference
BQS1	BQS1 - S	GW1	55	40 - 52	NA
	BQS1 - I	GW2	73	58 - 70	NA
	BQS1 - D	GW3	103	88 - 100	NA
BQN1	BQN1 - B	GW4	42	30 - 42	GW30225
	BQN1 - A	GW5	60	51 - 60	GW30724
	BQN1 - D	GW6	115	100 - 112	NA
BQN2	BQN2 - B	GW7	21	12 - 21	GW307323
	BQN2 - A	GW8	60	48 - 60	GW307322
	BQN2 - D	GW9	133	109 - 121	NA

Adjacent to Blakebrook Quarry

Two landholders were contacted to obtain anecdotal information and to request any available groundwater data. This was undertaken to determine if there are similar water quality results from wells located in Frederick soil landscape. One well was chosen in the Georgica landscape as control point.

- GW300669 – an active irrigation licence (30BL177205) located within the Frederick soil landscape on Mcleay Road, North Lismore. Owners were contacted three times between 2 May and 6 June 2017. Messages were left on two occasions with no reply. On the third occasion, the phone had been disconnected.
- GW305019 – a cancelled stock and domestic licence (30BL183282) located at Keerrong Road, Keerrong on the Georgica soil landscape. The owner returned our call (6 June 2017) and the status of the groundwater well was discussed. The groundwater well was established in 2004 but had to be filled in as the groundwater was too salty for it be used for irrigation, stock watering or domestic use. The owner mentioned that there was significant volume of water in the aquifer. The owner also suggested contacting the Community Consultative Committee for the Quarry and asking them for assistance in regard to groundwater data. It may be useful to approach local landholders on the Frederick and Wollongbar soil landscapes to request access to existing data or potentially collect discrete samples from their existing wells.

2.5. Site Contamination History

Surface water and groundwater monitoring has been undertaken at Blakebrook Quarry since 2012 as part of NSW EPA annual reporting requirements. Some water quality results (e.g. metals, particularly aluminium) have exceeded ANZECC Guidelines and the Australian Drinking Water Guidelines on a number of occasions, particularly in groundwater samples, hence this investigation.

The site is not considered contaminated and is not included on the 'List of NSW contaminated sites notified to the EPA' (NSW EPA, 2017).

2.6. Sensitive receptors

A number of sensitive receptors have been identified within the vicinity of the Quarry.

- People and workers visiting the site.
- Local landholders and cattle using the groundwater for drinking water and stock watering.
- Ecological receptors in the groundwater aquifers.
- Ecological receptors within surface water tributary and Terania Creek to the West of the Quarry.
- Ecological receptors within surface water tributary and Booerie Creek to the East of the Quarry.

3. Contaminants of Potential Concern (CoPC)

3.1. Surface Water

Surface water analysis results for three analytes were above ANZECC Guidelines on at least one occasion during 2016 quarterly monitoring rounds (ANZECC/ARMCANZ, 2000). Based on this previous surface water sampling (2016), the following are identified as potential contaminants of concern:

- Aluminium
- Copper
- Nitrate

3.2. Groundwater

Aluminium, arsenic, nickel, lead and zinc groundwater analysis results were above Australian Drinking Water Guidelines on at last one occasion during 2016 monitoring rounds (NHMRC, 2011). Groundwater analysis results for seven metals (listed below) were also above ANZECC Guidelines for freshwater ecosystems on at least one occasion during 2016 monitoring rounds (ANZECC/ARMCANZ, 2000). Groundwater analysis results for TSS were above ANZECC Guidelines for aquaculture on at least one occasion during 2016 monitoring rounds. Based on previous groundwater sampling the following is a complete list of potential groundwater contaminants of concern:

- Aluminium
- Arsenic
- Cadmium
- Copper
- Nickel
- Lead, and
- Zinc.

3.3. Soil

With reference to the surface water and groundwater contaminants of potential concern, and with reference to the Frederick soil landscape the following are contaminants of potential concern for the Blakebrook Quarry:

- Aluminium
- Arsenic

- Cadmium
- Copper
- Nickel
- Lead, and
- Zinc.

3.4. Summary of Contaminants of Potential Concern

Based on land use, historical reports and previous monitoring results, and the scope of works for this investigation the Contaminants of Potential Concern (CoPCs) are:

- Metals and nitrate in surface water.
- Metals and TSS in groundwater.
- Metals in soil.

4. Assessment Criteria

4.1. Surface Water Quality Assessment Criteria

Section 3 of the ANZECC Guidelines details the trigger values for slightly disturbed Freshwater Aquatic Ecosystems (**Table 5**). The ANZECC Guidelines are trigger values, below which, there should be minimal risk of adverse effects. Further investigation is recommended to determine the level of risk to sensitive receptors (e.g. humans and the environment) if a trigger value is exceeded (ANZECC/ARCAMNZ, 2000).

Surface water quality assessment criteria including physical parameters, nutrients, metals and pesticides.

PARAMETER	ANZECC 2000 Guidelines Trigger values for Freshwater Environments
pH	6.5 - 8.0
CONDUCTIVITY (EC) (dS/m)	0.200
TOTAL DISSOLVED SALTS (mg/L)	-
DISSOLVED OXYGEN (RDO) Sat %	85-110
REDOX POTENTIAL (ORP) (mV)	-
TOTAL SUSPENDED SOLIDS (mg/L)	-
BIOCHEMICAL OXYGEN DEMAND$_5$	-
SILVER (mg/L)	0.00005
ALUMINIUM (mg/L)	0.055
ARSENIC (mg/L)	0.024
CADMIUM (mg/L)	0.0002
CHROMIUM (mg/L)	0.001
COPPER (mg/L)	0.0014
IRON (mg/L)	ID
MANGANESE (mg/L)	1.9
NICKEL (mg/L)	0.011
LEAD (mg/L)	0.0034
SELENIUM (mg/L)	0.011
ZINC (mg/L)	0.008
MERCURY (mg/L)	0.0006

4.2. Groundwater Quality Assessment Criteria

Groundwater Investigation Levels (GILs) are derived from Schedule B1 – Guideline on Investigation Levels for Soil and Groundwater (NEPC, 2013a). The document references the ANZECC Guidelines for Freshwater Aquatic Ecosystems (ANZECC/ARMCANZ, 2000) and the Australian Drinking Water Guidelines (NHMRC, 2011).

These Guidelines are trigger values, below which, there should be minimal risk of adverse effects. Further investigation is recommended to determine the level of risk to sensitive receptors (e.g. humans and the environment) if a trigger value is exceeded.

While there are no ANZECC Guidelines (for freshwater aquatic ecosystems) or Australian Drinking Water Guidelines for Total Suspended Solids (TSS), comparison could be made to the ANZECC Aquaculture Trigger Value (freshwater) of 40 mg/L. Also, the ANZECC Aquaculture Guidelines of 300 mg/L for total oils and grease could be used to compare groundwater results in the absence of trigger values for Freshwater Ecosystems.

17 5 lists the relevant GILs for the Blakebrook Quarry.

Table 5. **Groundwater Investigation Levels (GILs) to be used as assessment criteria for Blakebrook Quarry, including physical parameters, nutrients, metals and pesticides (ANZECC/ARMCANZ, 2000; NEPC, 2013a and NHMRC, 2011).**

PARAMETER	ANZECC 2000 Guidelines Trigger values for Freshwater Environments	Australian Drinking Water Guidelines (ADWG)
pH	6.5 - 8.0	6.5 - 8.0
CONDUCTIVITY (EC) (dS/m)	0.200	-
TOTAL DISSOLVED SALTS (mg/L)	-	-
DISSOLVED OXYGEN (RDO) Sat %	85-110	-
REDOX POTENTIAL (ORP) (mV)	-	-
TOTAL SUSPENDED SOLIDS (mg/L)	-	-
BIOCHEMICAL OXYGEN DEMAND$_5$	-	-
SILVER (mg/L)	0.00005	-
ALUMINIUM (mg/L) (pH>6.5)	0.055	0.2
ARSENIC (mg/L)	0.024	0.01
CADMIUM (mg/L)	0.0002	0.002
CHROMIUM (mg/L)	0.001	0.05
COPPER (mg/L)	0.0014	2
IRON (mg/L)	ID	-
MANGANESE (mg/L)	1.9	0.5

PARAMETER	ANZECC 2000 Guidelines Trigger values for Freshwater Environments	Australian Drinking Water Guidelines (ADWG)
NICKEL (mg/L)	0.011	0.02
LEAD (mg/L)	0.0034	0.01
SELENIUM (mg/L)	0.011	0.01
ZINC (mg/L)	0.008	-
MERCURY (mg/L)	0.0006	0.001

4.3. Soil Assessment Criteria

Soil assessment criteria are derived from Schedule B1 – Guideline on Investigation Levels for Soil and Groundwater (NEPC, 2013a) (**Table 6**). Schedule B1 provides levels which can be used to assess risk of contamination to human and ecological receptors. Health Investigation Levels (HILs) have been adopted from the measure in order to determine the likely human health impacts of contamination and any further investigation required.

HILs provide assessment criteria for indicators of risk for direct contact and therefore are an important in determining risk. HILs are general assessment criteria used when conducting an initial screening of potential risk to human health. The HILs for Commercial & Industrial premises will be used (referred to as HIL-D) (NEPC, 2013a).

Table 6. **Assessment Criteria for Metals in Soil**

Substances	Health Investigation Level (HIL) Column D (mg/kg)
Metals/Metalloids	
Aluminium (%)	-
Arsenic	3,000
Cadmium	900
Chromium (VI)	<3,600
Copper	240,000
Iron (%)	-
Lead	1,500
Manganese	60,000
Mercury (inorganic)	730
Nickel	6,000
Silver	-
Selenium	2,500
Zinc	100,000

5. Sampling Methodology

5.1. Surface Water Quality Sampling Design & Rationale

Surface water sampling undertaken by Ecoteam was based on the location of four pre-existing water monitoring sites identified as part of the Soil and Water Management Sub-plan developed as part of the Blakebrook Quarry Expansion (ERM, 2011b). Surface water sampling locations are included as **Appendix A**.

The sampling round conducted in early February 2017 occurred prior to significant rainfall, whereas the sampling conducted by Ecoteam in mid-March 2017 followed significant rainfall. It is the intention of this investigation to compare 'dry weather' (i.e. early February) and 'wet weather' samples (i.e. mid-March).

Surface water quality sampling was undertaken by Stefanie Stanley and Lise Bolton on Thursday March 16, 2017. Discrete surface water samples were collected from all four surface water sampling sites.

Notes were collected on site conditions at the time of sampling using a template extracted from AS/NZS 5667.6:1998. Weather conditions at the time were overcast, with a light breeze. Sampling was undertaken from 11:30am – 2:30pm. There was over 167 mm of rainfall in the Wilsons River catchment in the week preceding surface water sampling.

The grab sampling method was used to collect surface water samples. A long sampling pole was used to collect water from approximately 300mm below the surface. Samples were collected in a clean plastic bottle and analysed for total and dissolved aluminium, copper and TSS. Historically, only total metals have been analysed in surface water samples in reports to the EPA. In situ water quality parameters were recorded using a SmartTROLL. **Appendix B** contains the water quality sampling methodology.

All surface water samples were stored on ice in an esky and submitted to the laboratory for analysis within 24 hours as per AS/NZS 5667.6:1998. **Appendix B** contains a signed chain-of-custody form acknowledging receipt date and time, and identity of surface water samples.

Refer to **Table 7** for sample details.

Table 7. **Details of Water Quality samples.**

Sampling Site	Sample description	No. of samples	Analysis
SW1	Grab	1	Aluminium, copper and TSS
SW2	Grab	1	Aluminium, copper and TSS
SW3	Grab	1	Aluminium, copper and TSS
SW4	Grab	1	Aluminium, copper and TSS

5.2. Groundwater Sampling Design & Rationale

The groundwater sampling rationale for discrete sampling undertaken by Ecoteam was determined based on historical groundwater analysis of pre-existing monitoring wells within Blakebrook Quarry.

The location and depth of three nests of monitoring wells were previously determined as part of the Groundwater Management Sub-plan developed as part of the Blakebrook Quarry Expansion (ERM, 2011a). At each groundwater monitoring location there are three wells at different depths up to 121m below surface level. The locations of groundwater monitoring wells are shown in **Appendix A**.

It is the intention of this investigation to compare results from 'dry weather' sampling to 'wet weather' sampling. The groundwater sampling round conducted in early March 2017 following a period of dry weather. The sampling conducted by Ecoteam in early April 2017 followed significant rainfall.

Detailed investigation was undertaken into the most appropriate method for groundwater sampling in deep wells prior to sampling. Three methods were considered:

1. Bailing,
2. Low flow pumping, and
3. HydraSleeve in-situ sampling.

According to AS/NZ 5667.11:1998, bailing is a relatively crude method of collecting water quality samples and is recommended for use during the establishment of wells and for sampling the surface layer of water in an aquifer. Low flow pumping is another option, however can be very time consuming and expensive, and can affect water quality results, particularly in deep wells >100m below surface level, like BQN1-D. Depth sampling using in-situ equipment is recommended for wells >100m as other equipment may be impractical.

The HydraSleeve (which is comparative low flow sampling) was used for this project based on AS/NZS 5667.11:1998 and the relatively inexpensive and reliable results that can be obtained from this approach. The HydraSleeve is an insitu grab sampling method where a sealed soft plastic tube is lowered into the well (Plate 1, **Appendix E**). The sampling depth is measured carefully to ensure the HydraSleeve is placed in the middle of the well screen. The HydraSleeve is left in place for 2-4 days to allow the groundwater in the well to settle. The HydraSleeve is then pulled up 1-2m in one quick motion, the top of the HydraSleeve opens and the grab sample is collected in the HydraSleeve tube. The HydraSleeve is pulled up gently out of the well and then in-situ measurements can be taken and laboratory samples collected for analysis.

BQN1-D is a relatively new groundwater monitoring well, installed in 2016 at a depth of 112 m below surface level. A concentration of 97.4 mg/L of aluminium was detected in BQN1-D in the monitoring round conducted on 13 September 2016 and was the first sample to be extracted from the well following installation. This result was the highest overall aluminium concentration in all groundwater samples across all sites collected from 2013-2017. Aluminium is soluble above pH 8.5. Aluminium in groundwater will be in particulate form at

pH 5 – 8.5. Therefore, pH of groundwater will also be correlated with TSS, rainfall, and concentrations of total and dissolved metals.

It is unclear if the groundwater well was established after installation. If the well was not properly established and a bailer used to collect the initial well sample, than higher concentrations of TSS and metals could be expected in the water column. Elevated TSS in the water column is due to the disturbance of soil as the well is drilled into the groundwater table. BQN1-D was chosen for discrete sampling to determine if water quality had changed at depth since the well installation.

Groundwater sampling was undertaken by [redacted] on Tuesday 28 March 2017 and Wednesday April 5 2017. The HydraSleeve was deployed on Tuesday 28 March and the sample collected for analysis on Tuesday 5 April. Notes were collected on site conditions at the time of sampling using a template extracted from AS/NZS 5667.11:1998. Weather conditions at the time the sample was collected were light rain with a light breeze. Sampling was undertaken from 10:00am to 10:45am.

Samples were collected in a plastic bottle and analysed for pH, TSS and a suite of total and dissolved metals as defined by EPA licencing requirements. Historically, only total metals have been analysed in groundwater samples as part of EPA reporting. The groundwater sample was stored on ice in an esky and submitted to the laboratory for analysis within 24 hours as per AS/NZS 5667.11:1998. **Appendix C** contains a signed chain-of-custody form acknowledging receipt date and time, and identity of groundwater samples.

In situ water quality parameters were recorded using a SmartTROLL. **Appendix B** contains the groundwater quality sampling methodology.

5.3. Soil Sampling Design & Rationale

Judgemental soil sampling was selected as the preferred methodology for this Preliminary Water Quality Investigation for several reasons. According to Schedule B2 of NEPM (NEPC, 2013b), judgemental sampling is the preferred methodology when performing a relatively small scale screening assessment, as is the case for this report. Judgemental sampling results can then be used to determine if more detailed site assessment is required. Given the size and extent of the Blakebrook Quarry site, targeted sampling based on professional judgement was the preferred approach.

Soil sample locations were selected based on desktop assessment and site investigation. Desktop assessment identified the soil landscape as Frederick. Frederick soils are very strongly acid, have moderate erodibility and aluminium toxicity potential (Morand, 1994). The initial proposal was to collect a soil sample from the A and B Horizons of the Frederick soil landscape to determine the presence of metals in the soil that may be contributing to metals in the groundwater.

Soil sampling was undertaken by Stefanie Stanley and Lise Bolton on 28th March 2017. Weather conditions were cloudy with rainfall occurring prior to sampling. Two soil samples were collected and analysed for a suite of metals. The soil sampling design was amended following assessment of site characteristics. Light yellow - brown turbid water was noticed ponding within the bunded wall in the north-east corner of the site near groundwater wells at location of groundwater wells, BQN1. The turbid water was of similar colour to the soil used to build the bund and therefore one soil sample was collected from the top of the bund wall.

The second soil sample was collected in-situ soil from the cutting adjacent to the road leading down into the quarry floor. The soil at the second location was from the lower soil horizons and was of similar colour and characteristics to that used to build the bund wall. If there is any direct penetration of surface water into the groundwater, it would be from the overlying soil (either disturbed or in-situ) and hence these layers were collected and analysed. Refer to Error! Reference source not found. for details on the sampling regime for the Investigation Area.

Table 8. **Soil Sampling Design and Locations**

Sample zone	Sample description	No. of samples	Analysis	Sample ID
Near BQN1	Judgmental (Top of Bund Wall)	1	Metals	S02
Road Cutting	Judgmental (In-situ Soil Horizon)	1	Metals	S03

Appendix B contains the detailed soil sampling methodology. **Appendix C** contains a signed chain-of-custody form acknowledging receipt date and time, and identity of soil samples. Refer to **Appendix A** for a map of soil sampling locations.

6. Investigation Quality Assurance/ Quality Control Evaluation

Table 10 contains the summary of the field and laboratory investigation QA/QC evaluation.

Table 9. **Investigation Field QA/ QC program.**

Criteria	Objective/DQO	References	Evaluation/ comments
Historical evaluation/ desktop study	Determine contaminates that present contamination risk. Review historical aerial photograph & reports.	NSW OEH, 2011 NSW EPA, 2007 AGMCA/ANZECC, 1995	Objective achieved – limited to preliminary investigation requirements.
Water Sampling Design	Sample surface and groundwater at pre-existing locations as per EPA reporting requirements. Target contaminants are metals, nitrate, TSS, BTEX and TRH.	NEPC, 2013b. AS/NZS 5667.6:1998 AS/NZS 5667.11:1998	Objectives achieved - limited to preliminary investigation requirements.
Soil Sampling Design	Judgemental sampling methodology. Target contaminants are metals. Sample stockpile and in-situ soil to detect CoPCs.	NSW EPA, 1995. NEPC, 2013b.	Objective achieved - limited to preliminary investigation requirements.
Site Assessment	Investigate soil type. Assess potential contaminant pathways. Use qualified and experienced staff. Ensure all field equipment has been calibrated.	NSW EPA, 1995. NEPC, 2013b.	No visible contamination indicators. Turbid water observed ponding on the surface following rainfall. Objectives achieved.
QA/QC Water Sampling Procedure	Surface water sampled at four pre-existing locations as per EPA licencing requirements. Groundwater was sampled at one location where highest concentrations of aluminium detected (BQN1-D). No cross contamination between samples. In situ samples recorded and laboratory sample collected from each location. Surface water samples collected following rainfall using long pole to capture in stream flow and collected from 30cm below the surface. Groundwater sample collected using in-situ HydraSleeve method due to depth of well (>100m), diameter of well and time and budget constraints.	AS/NZS 5667.6:1998 AS/NZS 5667.11:1998	Sample plan and procedures followed. Correct non-contamination procedures used. All surface sampling executed on the same day/weather by the same personnel. Samples were stored correctly. Objectives achieved.

Criteria	Objective/DQO	References	Evaluation/ comments
	Samples individually stored in clean sampling containers provided by EAL. Proper recording of sample locations, time and sampler. Holding times, temporal and operator influences minimised. Samples stored on ice on the day, and sent to the laboratory on the same day. Chain-of-custody paperwork completed.		
QA/QC Soil Sampling Procedure	No cross contamination between samples Decontamination procedure – New disposable gloves used to collect samples, shovels decontaminated between each sampling location. Sampling equipment washed with phosphate free detergent and rinsed with distilled water for each sampling location. Samples individually stored in clean sampling containers provided by the EAL. Proper recording of sample locations, time and sampler. Holding times, temporal and operator influences minimised. Samples stored on ice on the day sent to the laboratory on the same day. Chain-of-custody procedure followed.	NEPC, 2013b. AS/NZS 4482.1:2005	Sample plan and procedures followed. Correct decontamination procedures used. All sampling executed on the same day/weather by the same personnel. Samples were stored correctly. Objective achieved
Testing Accreditation	Maximise data quality by using NATA accredited laboratories.	EAL (NATA accreditation No. 14960).	Laboratory employs full QA procedures. Objective achieved.

7. Results & Interpretation

The scope of works for this report was to collect discrete surface water, groundwater and soil samples from the Blakebrook Quarry area and analyse the samples for a range of CoPCs to identify if the concentrations found were above guideline limits.

Surface water and groundwater samples collected in early February and early March occurred prior to significant rainfall and can be considered 'dry weather' samples. Surface water and groundwater samples analysed by Ecoteam were collected following significant rainfall (mid to late March and early April 2017) and could be considered 'wet weather' samples.

Soil samples were collected and analysed for a suite of metals to determine aluminium concentrations in particular. If there are elevated aluminium concentrations in the local soils than aluminium levels may be naturally occurring and not a result of site specific contamination. High aluminium levels in the groundwater may be as a result of surface water percolating through acidic soils and dissolving the naturally occurring aluminium of the Frederick / Wollongbar soil landscapes.

7.1. Surface Water Results

Discrete Surface Water Sampling Results

Surface water quality measurements (RDO, ORP and Conductivity) were taken in-situ using a handheld SmarTROLL. pH and temperature were measured in-situ using a handheld probe at SW1 and SW4 and the SmarTROLL at SW2 and SW3. In-situ measurements for surface water sites SW1- SW4 are shown in **Table 10**.

Table 10. **In situ surface water quality measurements for SW1 – SW4. Results above guideline limits are shaded in light blue.**

PARAMETER	ANZECC 2000 Guidelines Trigger values for Freshwater Environments	Results			
		SW1	SW2	SW3	SW4
pH	6.5 - 8.0	7.6	9.25	8.70	7.4
Temp °C	-	23.3	23.62	23.88	24.8
RDO (mg/L)	-	7.16	6.09	6.08	7.23
RDO Sat %	85-110	85.76	72.47	72.89	91.05
ORP (mV)	-	59.42	84.27	101.24	119.65
CONDUCTIVITY (EC) (dS/m)	0.200	0.18	0.06	0.08	0.14
Depth (mm)	-	298	673	425	243

Surface water samples were from collected from SW1 - SW4 and analysed in the laboratory for TSS, and total and dissolved aluminium and copper. Results are shown in **Table 11** and laboratory report is included as **Appendix D.** Nitrate was not analysed in this investigation

as only two samples have returned results above guideline limits in the previous 5 years of sampling.

Total and dissolved aluminium results were above guideline levels in all samples, however, dissolved aluminium was lower in concentration by a factor of 4 at each sampling location. Sites SW2 and SW3 had the highest total aluminium concentrations, at 3.469 mg/L and 4.275 mg/L, respectively. SW2 and SW3 are located upstream and downstream of the Quarry tributary, respectively.

Total and dissolved copper results were above guideline levels in all samples. Site SW4 had had the highest total copper concentration at 0.005 mg/L. Dissolved copper concentrations were consistently recorded as 0.002 mg/L at all four sampling sites.

Table 11. **Surface water quality results from laboratory analysis of samples collected from sites SW1 – SW4.**

PARAMETER	ANZECC 2000 Guidelines Trigger values for Freshwater Environments	Results			
		SW1	SW2	SW3	SW4
TOTAL SUSPENDED SOLIDS (mg/L)	-	35	29	69	69
NITRATE (mg/L N)	0.04	-	-	-	-
ALUMINIUM (mg/L) TOTAL	0.055	0.819	3.469	4.275	0.957
ALUMINIUM (mg/L) DISSOLVED	0.055	0.172	1.117	0.883	0.256
COPPER (mg/L) TOTAL	0.0014	0.003	0.002	0.002	0.005
COPPER (mg/L) DISSOLVED	0.0014	0.002	0.002	0.002	0.002

Historical Surface Water Sampling Results

At least 17 historical surface water monitoring rounds have been undertaken since 2012. Aluminium concentrations were above ANZECC Guidelines in all surface water samples and at all locations from 2012 - 2017. There was only one occasion (24 October 2012) when sample results for aluminium were within ANZECC Guideline of 0.055 mg/L. This occurred at one site only, namely SW1 with concentrations of aluminium at 0.013 mg/L (located in the tributary downstream of the Quarry discharge point).

Water quality results from 2012 – 2017 range from 0.013 mg/L – 3.374 mg/L. The three highest aluminium concentrations occurred on the 1 July 2013, ranging from 2.773 mg/L – 3.374 mg/L. The two highest results were recorded within Terania Creek, upstream (site SW2 at 3.181 mg/L) and downstream (site SW3 at 3.374 mg/L) of the Quarry tributary. Total Suspended Solids (TSS) concentrations were above the ANZECC Guideline of 50 mg/L at all three sites SW1 – SW3, ranging from 107 mg/L at SW1 to 280 mg/L at Site SW3. Copper concentrations were also recorded above the ANZECC Guideline of 0.0014 mg/L with 0.002 mg/L recorded at sites SW1 – SW3. Up to 39 mm of rainfall had occurred during the preceding two days of the monitoring round (BOM, 2017).

The next three highest aluminium concentrations occurred on the 25 August 2015, ranging from 1.392 mg/L – 1.938 mg/L (sites SW1-SW3). The highest concentration of aluminium was recorded upstream of the Quarry tributary (1.938 mg/L at site SW2). Total Suspended Solids (TSS) were also elevated though not above ANZECC Guidelines. Up to 26.8 mm of rainfall had occurred during the preceding two days of the monitoring round (BOM, 2017). Monitoring results for all three sampling rounds in 2015 recorded elevated levels of copper above the ANZECC Guideline of 0.0014 mg/L.

No discharge was recorded from the Quarry (site SW4) during 2015 or 1 July 2013 monitoring rounds.

Interpretation of Surface Water Results

Soils in the far north coast of NSW are generally acidic and of basaltic origin. These soils are acidic with high exchangeable aluminium in the subsoils. The topsoil and subsoils can be mobilised by erosion during rainfall events particularly if riparian vegetation is lacking (Jenkins & Morand, 2002). Aerial photography shows an absence of a dense riparian zone along Terania Creek.

Historical aluminium concentrations are consistently above ANZECC Guidelines, in both dry and wet weather. This, in conjunction with soil type and the absence of a dense riparian zone along Terania Creek indicates that the source of aluminium and copper is likely to be from eroded soil that has been mobilised during rainfall events. Surface water was highly turbid within Terania Creek due to significant rain in the days prior to collecting water quality samples (Plate 2, **Appendix E**).

In summary, elevated concentrations of aluminium and copper in surface waters correlate with rainfall events occurring immediately preceding monitoring rounds (i.e. 2-7 days). TSS concentrations were also elevated immediately following rain events. Discrete surface water sampling undertaken by Ecoteam at all four sites SW1- SW4 indicates that the majority of aluminium present in the surface water is of colloidal (particulate) form which is not readily available to aquatic organisms. Aluminium is only considered toxic to aquatic organisms in dissolved form. Although concentrations of dissolved aluminium are above ANZECC Guidelines, this is most likely naturally occurring and attributed to the local soil type.

Groundwater also interfaces with Terania Creek, and, if aluminium is present in local soils, would also be attributing to elevated aluminium concentrations.

7.2. Groundwater Results

Discrete Groundwater Sampling

The groundwater sample was collected from BQN1-D and analysed in the laboratory for TSS, pH and a suite of total and dissolved metals. In-situ measurements were also taken using the SmarTROLL. Results are shown in **Table 12** and the laboratory report is included as **Appendix D**. Results above guideline limits highlighted in light blue.

Table 12. **In situ groundwater quality measurements for BQN1-D. Results above guideline limits are shaded in light blue.**

PARAMETER	ANZECC 2000 Guidelines Trigger values for Freshwater Environments	Australian Drinking Water Guidelines (ADWG)	BQN1-D Groundwater Results (5 April 2017)
pH (Lab)	6.5 - 8.0	6.5 – 8.5	8.97
pH (Field – SmarTROLL)	6.5 - 8.0	6.5 - 8.0	8.51
TEMPERATURE (°C)	-	-	20.66
CONDUCTIVITY (EC) (dS/m)	0.200	-	1.66
TOTAL DISSOLVED SALTS (mg/L)	-	0-600	1178.2
DISSOLVED OXYGEN (RDO) (%Sat)	85-110	>85%	45.63
REDOX POTENTIAL (ORP) (mV)	-	-	-19.90
TOTAL SUSPENDED SOLIDS (mg/L)	-	-	74
BIOCHEMICAL OXYGEN DEMAND$_5$	-	-	NA
SILVER Total (mg/L)	0.00005	-	<0.001
SILVER Dissolved (mg/L)	0.00005	-	<0.001
ALUMINIUM Total (mg/L) (pH>6.5)	0.055	0.2	0.707
ALUMINIUM Dissolved (mg/L) (pH>6.5)	0.055	0.2	0.037
ARSENIC Total (mg/L)	0.024	0.01	0.003
ARSENIC Dissolved (mg/L)	0.024	0.01	0.004
CADMIUM Total (mg/L)	0.0002	0.002	<0.001
CADMIUM Dissolved (mg/L)	0.0002	0.002	<0.001
CHROMIUM Total (mg/L)	0.001	0.05	0.005
CHROMIUM Dissolved (mg/L	0.001	0.05	0.001
COPPER Total (mg/L)	0.0014	2	0.009
COPPER Dissolved (mg/L	0.0014	2	0.001
IRON Total (mg/L)	ID	-	2.372
IRON Dissolved (mg/L)	ID	-	0.010
MANGANESE Total (mg/L)	1.9	0.5	0.035
MANGANESE Dissolved (mg/L)	1.9	0.5	0.008
NICKEL Total (mg/L)	0.011	0.02	0.010
NICKEL Dissolved (mg/L)	0.011	0.02	0.002
LEAD Total (mg/L)	0.0034	0.01	0.001
LEAD Dissolved (mg/L)	0.0034	0.01	<0.001
SELENIUM Total (mg/L)	0.011	0.01	0.001

PARAMETER	ANZECC 2000 Guidelines Trigger values for Freshwater Environments	Australian Drinking Water Guidelines (ADWG)	BQN1-D Groundwater Results (5 April 2017)
SELENIUM Dissolved (mg/L)	0.011	0.01	<0.002
ZINC Total (mg/L)	0.008	-	0.047
ZINC Dissolved (mg/L)	0.008	-	0.003
MERCURY Total (mg/L)	0.0006	0.001	<.00005
MERCURY Dissolved (mg/L)	0.0006	0.001	<0.0005

Conductivity and Total Dissolved Salts (TDS) were recorded at 1.66 mg/L and 1176.2 mg/L, respectively, which is noted as poor condition in the Australian Drinking Water Guidelines (NHMRC, 2011). TDS comprise sodium, potassium, calcium, manganese, chloride, sulfate, bicarbonate, carbonate, silica, organic matter, fluoride, iron, manganese, nitrate, nitrite and phosphorus (NHMRC, 2011). pH 8.51 was measured in the field, and pH 8.97 was measured in laboratory samples. Dissolved oxygen was below 50% and ORP (redox potential) was recorded at -19.90 mV.

Total aluminium, chromium, copper and zinc results were above ANZECC Guidelines, however, dissolved concentrations of these metals were all below ANZECC Guideline limits. Total suspended solids (TSS) were also elevated at 74 mg/L on the day of sampling.

It is worth noting that the HydraSleeve method returned similar results to bailing at BQN1-D for monitoring conducted 9 March 2017 and discrete sampling undertaken by Ecoteam on 5 April 2017. Results may be similar because the groundwater had not had time to percolate through the soil following the significant rain event.

If bailing of three well volumes was not conducted prior to collecting the groundwater sampling in deep wells, than using the bailer to collect an in-situ sample may be satisfactory. It is important to record the method used for collecting groundwater samples in future monitoring rounds to enable accurate and meaningful interpretation of laboratory results.

Historical Groundwater Sampling Results

At least 15 historical groundwater monitoring rounds have been undertaken since 2013. Twelve (12) monitoring rounds have occurred at locations BQN1 and BQN2 in both the shallow and intermediate wells. Three sampling rounds (during 2016/17) have occurred at the three new monitoring wells at BQS1 including the new deep monitoring wells at existing sites BQN1 and BQN2. All recorded results are for concentrations of total metals.

In groundwater, total aluminium concentrations were above ANZECC Guidelines and Australian Drinking Water Guidelines at all sampling locations on at least one occasion during 2016. Total arsenic, cadmium, copper, nickel, lead and zinc concentrations were also above ANZECC Guidelines on at least one occasion in 2016. At some groundwater

monitoring locations, total copper and zinc were above ANZECC Guidelines in every sample collected in 2016.

Groundwater quality results for total aluminium range from 0.001 mg/L – 97.4 mg/L over the monitoring period, in some instances well above the ANZECC Guideline of 0.055 mg/L. Aluminium concentrations were significantly elevated on 13 September 2016, including the two of the three highest results between 2013 – 2017, at 11.4 mg/L and (BQN1-A) and 97.4 mg/L (BQN1-D). The second highest total aluminium concentration was recorded at BQN1-A at 22.7 mg/L on 5 February 2015.

At BQN1-A, the well at intermediate depth in the north east corner of the Quarry, high total aluminium concentrations correlate with high TSS and rainfall, except on one occasion on 27 October 2014. Rainfall in the five weeks preceding was 16.8 mm, however TSS was recorded at 309 mg/L and aluminium concentrations at 3.328 mg/L (BOM, 2017). This may be due to the slow drawdown of the aquifer. Elevated aluminium concentrations at BQN1-A correlate with rainfall events in the month preceding monitoring rounds. In the fortnight preceding 5 February 2015, up to 102.2 mm of rain fell in the catchment. In the 5 weeks preceding the 13 September 2016, up to 115.2 mm of rain fell in the catchment (BOM, 2017). At BQN1-A, the water bearing zone (WBZ) is 52 – 60m below surface level and the screen interval is 51-60m below surface level. Soft basalt and soft muddy basalt noted as strata overlying water bearing zone at 15-48 m and 12-15m below surface level, respectively (NSW Office of Water, 2017).

At site BQN1-B, the shallow monitoring well in the north east of the Quarry, aluminium concentrations have exceeded ANZECC Guidelines on only one occasion, being 0.293 mg/L in the sampling round conducted on 22 April 2016. At BQN1- B, the WBZ is noted as 28-38m below surface level with the screen interval at 30-42m below surface level. The driller's log notes soft, muddy basalt at 23-30m below surface level as the strata overlying the water bearing zone (NSW Office of Water, 2017). There are two hard basalt layers from 2-7m and 13-23m which are likely to be preventing surface water percolating through the soft, muddy layer to the WBZ.

In contrast, at BQN2-A (the intermediate depth monitoring well on the western side of the Quarry) aluminium concentrations have met or exceeded ANZECC Guidelines for aluminium on every occasion (ranging from 0.055 mg/L on 8 December 2016 to 1.134 mg/L on 22 July 2014). At BQN2-A, the WBZ is 52-60m below surface level with the screen interval at 48-60m below surface level. Soft, muddy basalt is noted as the overlying strata in the driller's log at both 20-24 and 45-52m, below surface level (NSW Office of Water, 2017).

At BQN2-B (the shallow monitoring well on the western side of the Quarry) aluminium concentrations have exceeded ANZECC Guidelines on every occasion except one (ranging from 0.019 mg/L on 28 October 2013 to 2.308 mg/L on 23 April 2014). At BQN2-B, the WBZ is 15-19m below surface level and the screen interval is 12 to 21 m below surface level. Soft muddy basalt noted in driller's log from 19-24m below surface level (NSW Office of Water 2017).

All wells at site BQS1 recorded aluminium concentrations above ANZECC Guidelines. These wells have only been established for three monitoring rounds. The driller's logs for these wells were not available on the NSW Office of Water website and as such we are unable to comment on the geology or water bearing zones. However, given the geology and driller's logs of BQN1 and BQN2, it is likely that they have similar surface geology including a combination of basalts, and soft, muddy or clay layers to 60m.

Deep groundwater monitoring wells were installed at three locations in 2016. There have been three monitoring rounds of the deep wells to date. The first monitoring round on 13 September 2016 recorded the highest aluminium concentration of any sample (at BQN1-D) since the commencement of the groundwater monitoring program. This may be attributed to the relatively recent installation of the well, and given the depth, the well may not have had been adequately purged of the well water disturbed during drilling. A subsequent monitoring round has recorded much lower total aluminium concentrations at 0.692 mg/L.

The Blakebrook Quarry site has also returned consistently high levels of TSS, up to 1,340 mg/L at BQN2-B on 2 November 2015. Up to 76.8 mm of rainfall occurred in the catchment in the 5 weeks preceding the monitoring round, however, these results are exceptionally high for groundwater (BOM, 2017).

Summary

The Groundwater Monitoring and Management Sub-plan, completed for the Blakebrook Quarry expansion notes the complex geology of Lismore Basalts, including the highly complex interaction of surface water with groundwater (ERM, 2011a). In particular, the report notes that the surface and intermediate geological layers will be most responsive to significant rainfall events with deeper, underlying aquifers much slower to respond due to the overlying hard basalt layers at depth.

Observations from site assessments noted that there was significant ponding of surface water on the Quarry floor near surface water monitoring location SW4, the discharge point from the Quarry (Plate 3, **Appendix E**). Fractured basalt was observed on the Quarry floor near SW4 monitoring site (Plate 4, **Appendix E**).

The investigation indicates that aluminium may be naturally occurring in the soils and subsoils within the Quarry. A discrete sample of groundwater from BQN1-D identified that the majority of aluminium is in particulate form. Metals in colloidal or particulate form are not considered harmful to aquatic organisms (Upjohn, Fenton and Conyers, 2005). Dissolved concentrations of metals in the discrete groundwater sample at BQN1-D were within ANZECC Guidelines and Australian Drinking Water Guidelines.

7.3. Soil Testing Results

Soil assessment criteria were derived from Schedule B1 – Guideline on Investigation Levels for Soil and Groundwater (NEPC, 2013a). Results from two soil samples collected by Ecoteam are shown in **Table 14** and laboratory report is included as **Appendix D**.

Table 13. **Assessment Criteria for Metals in Soil**

Substances	Health Investigation Level (HIL) Column D (mg/kg)	Site S02 (top of bunded wall near BQN1)	Site S03 (from cutting on eastern haul road)
Metals/Metalloids (mg/kg)			
Aluminium (%)	NA	3.6	2.6
Arsenic	3,000	1.8	3.5
Cadmium	900	0.1	0.1
Chromium (VI)	<3,600	43	48
Copper	240,000	18	9
Iron (%)	NA	5.7	10.2
Lead	1,500	7.4	9.6
Manganese	60,000	100	270
Mercury (inorganic)	730	<0.1	<0.1
Nickel	6,000	7.3	8.0
Silver	NA	<0.1	<0.1
Selenium	2,500	1.4	1.6
Zinc	100,000	81	65

There have been no previous investigations into the potential contamination of soils in the Blakebrook Quarry. It is noted that the top soil and subsoils are removed and stockpiled as part of quarry operations in order to access, crush and process the basalt rock layer.

All soil sampling results are within HIL-D guideline values for Commercial & Industrial sites. There are no HIL-D Guideline values for aluminium, silver and iron. Both iron and aluminium were detected in the soil samples, indicating a potential source of aluminium in groundwater.

While the soil landscape is mapped as Frederick, observations on site revealed the soil has pockets of the Wollongbar (wo) soil type. Wollongbar soils are more acidic than the Frederick landscape and have a higher aluminium toxicity potential and a higher erodibility. Further, site observations identified associated soil material as 'mottled medium clay with weathered basalt' being the C horizon (Morand, 1994). The C horizon is clearly evident in photographs of the Quarry face and from soil samples collected on site (Plate 5, **Appendix E**). The mottled clay has colours ranging from yellowish brown, purple, grey brown and white.

7.4. Summary

Soil testing results and site observations identified that the Blakebrook Quarry is mapped as Frederick soil landscape, however contains pockets of Wollongbar krasnozems with high aluminium toxicity potential and high erodibility and mottled medium clays in the C horizon. Soils of the Wollongbar soil type are also highly acidic, with pH 4.5 – 5.0 (Morand, 1994).

Krasnozem subsoils are particularly acidic and consist of kaolinite clays and gibbsite in various concentrations (Jenkins & Morand, 2002). As water seeps through the subsoils, it

becomes acidic and aluminium is dissolved from the kaolin clays and gibbsite and becomes soluble (UNESCO, 2011-12). It is likely that as surface water and groundwater becomes highly acidic as it percolates through the soil layers, dissolving aluminium and other metals.

8. Conclusion & Recommendations

8.1. Conclusions

The Blakebrook Quarry is a complex formation of Lismore Basalt. The soil landscape is mapped as Frederick with overlying soils of the Wollongbar landscape. Wollongbar soils are characterised by high aluminium toxicity potential, high erodibility and ph 4.5 – 5.0, meaning they are highly acidic.

Surface water sampling results and interpretation indicate that the lack of riparian vegetation and subsequent bank erosion are the most likely contributor to TSS and elevated total and dissolved metals in Terania Creek. Concentrations of aluminium and copper are higher within the main channel of Terania Creek (at sites SW2 and SW3) than within the Quarry. Concentrations of aluminium and copper are higher both upstream and downstream of the confluence of the Quarry tributary with Terania Creek, indicating that the Quarry is not a point source of aluminium and copper contamination.

Groundwater results show that there is a complex geology and interaction between surface water, soil layers, rock strata and underlying aquifers in the Blakebrook Quarry investigation area. Surface water may be percolating through the fractured basalt layers, however this was not observed on site.

It is unlikely that the groundwater interfacing with Terania Creek contains aluminium and other metals from the Blakebrook Quarry as the basalt rock layers at shallow and intermediate depth would interface with the ground surface forming springs from the Blakebrook Hill. Because water quality results for aluminium and copper at SW1 (the Blakebrook tributary), are lower than the main channel, the most likely source of aluminium and other metals in the surface water and groundwater are from local, in-situ soils being eroded either from the land surface or from other geological layers at much lower depths. Investigating the driller's logs from the deep monitoring wells would provide more information.

8.2. Recommendations

- Analyse surface water and groundwater samples for total and dissolved metals as part of regular monitoring rounds.
- Write up and map the driller's logs for the five new groundwater wells to correlate rock strata and aquifers with existing information. Investigate if the mottled medium clay layer overlies BQS1 and BQN2. This data would assist future analysis and interpretation.
- Consider collecting surface water quality samples near fractured basalt during a rain event.
- Ensure three well volumes are purged prior to sampling by bailer as per Groundwater Monitoring and Management Plan.

- Consider requesting groundwater data or access to landholder's monitoring wells as part of quarterly Community Consultative Committee meetings.

8.3. Summary

Our Preliminary Water Quality Investigation has revealed that the most likely source of aluminium and other metals in surface water and groundwater is from local, in-situ soil of the Wollongbar landscape. (Although mapped as Frederick soil landscape, site assessments revealed that Wollongbar landscape is more accurate). Wollongbar soils are highly acidic, extremely erodible and have high aluminium toxicity potential. Surface water and groundwater results show that aluminium concentrations increase following rainfall events.

Historical surface water and groundwater monitoring rounds only analyse samples for total metals. While total metals are above ANZECC Guidelines (for aluminium in groundwater in particular), discrete sampling results of dissolved metals in groundwater are well within ANZECC Guidelines. To compile a more complete groundwater data set, ongoing monitoring of dissolved metals (particularly aluminium) is recommended.

Where dissolved metals are above ANZECC Guidelines in surface water, this can be attributed to soil erosion from in-situ local soils within the main channel and catchment of Terania Creek.

Surface water was observed percolating directly through fractured basalt rock on the Quarry floor, however, analysis of dissolved metals in groundwater samples are well within ANZECC Guidelines and Australian Drinking Water Guidelines. We recommend continued monitoring of total and dissolved metals, specifically in groundwater, as part of future management of the Quarry.

We also recommend compiling the driller's logs for the five new groundwater monitoring wells to enable more detailed interpretation of geology and surface water and groundwater interactions in future investigations.

Finally, to enable accurate interpretation of future groundwater monitoring results, we recommend recording the sampling methodology for each groundwater well.

9. References & Guidelines

Agriculture and Resource Management Council of Australia and New Zealand (AGMCA) and Australian and New Zealand Environment and Conservation Council (ANZECC), (1995). Guidelines for Protection of Groundwater in Australia.

Australian and New Zealand Environment and Conservation Council (ANZECC) and Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ). (2000). Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Volume 1: The Guidelines.

Australian Standard ASNZS 4482.1 (2005). Guide to the investigation and sampling with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds.

Australian Standard ASNZS 5667.11 (1998). Water quality—sampling. Part 11: Guidance on sampling of groundwater's.

Australian Standard ASNZS 5667.6 (1998). Water quality—sampling. Part 6: Guidance on sampling of rivers and streams.

Bureau of Meteorology (BOM), (2017). Weather Station Directory. Lismore Airport AWS, Station: 58214. Website: http://www.bom.gov.au/climate/data/stations/ . Accessed: 4 June 2017.

Environmental Resource Management (ERM) Australia, (2011a). Groundwater Monitoring and Management Sub-plan – Blakebrook Quarry Expansion.

Environmental Resource Management (ERM) Australia, (2011b). Soil and Water Management Sub-plan – Blakebrook Quarry Expansion.

Jenkins, B. and Morand, D., (2002) A Comparison of Basaltic Soils and Associated Vegetation Patterns in Contrasting Climate Conditions in Roach, I.C. ed. 2002. Regolith and Landscapes in Eastern Australia, pp.76-80.

Morand, D.T. (1994) Soil Landscapes of the Lismore-Ballina 1:100 000 Sheet. Department of Conservation and Land Management (CALM) Soil Landscape Series.

National Environmental Protection Council (NEPC) Measure, (2013a). Schedule B (1) – Guideline on the Investigation Levels for Soil and Groundwater (HILs).

National Environmental Protection Council (NEPC) Measure, (2013b). Schedule B (2) – Guidelines on Site Characterisation.

National Environmental Protection Council (NEPC) Measure, (2013c). Schedule B (6) – The Framework for Risk-Based Assessment of Groundwater Contamination.

National Health and Medical Research Council (NHMRC), (2011). Australian Drinking Water Guidelines 6 (Version 3.3). National Water Quality Management Strategy. Updated November 2016.

New South Wales Environmental Protection Authority (NSW EPA), (1995). Sampling Design

New South Wales Environmental Protection Authority (NSW EPA), (2003). Guidelines for Consultants Assessing Service Station Sites.

New South Wales Environmental Protection Authority (NSW EPA), (2007). Guidelines for the Assessment and Management of Groundwater Contamination.

New South Wales Environmental Protection Authority (NSW EPA), (2017). 'List of NSW contaminated sites notified to the EPA'. Website: http://www.epa.nsw.gov.au/clm/publiclist.htm. Accessed: 18 May 2017.

New South Wales Office of Environment and Heritage (NSW OEH), (2011). Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites.

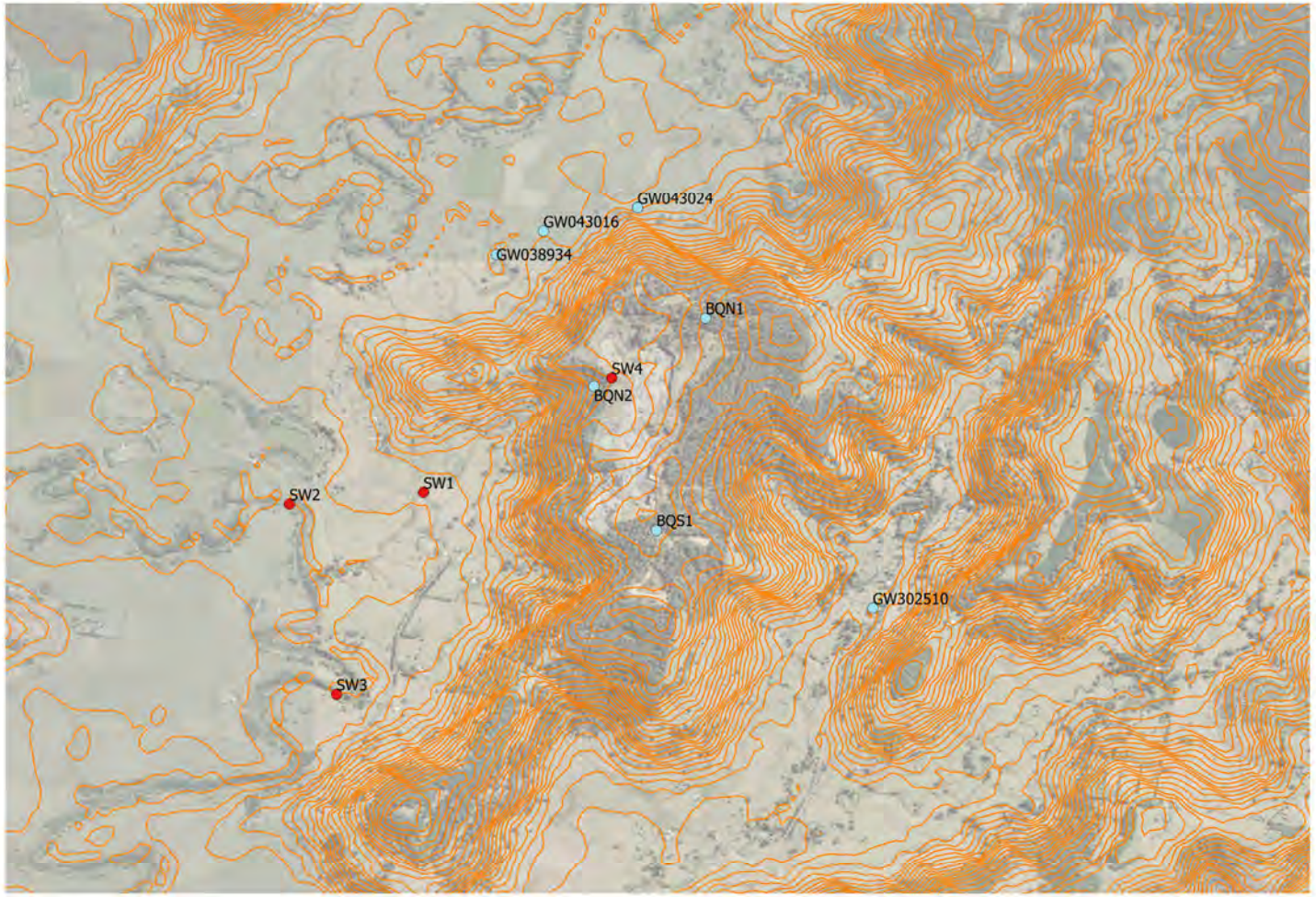
New South Wales Office of Environment and Heritage (NSW OEH), (2017). eSpade. Website: http://www.environment.nsw.gov.au/eSpade2WebApp . Accessed: 23 February 2017.

New South Wales Office of Water (n.d.) Groundwater Data. Website: http://allwaterdata.water.nsw.gov.au/water.stm. Accessed: 23 February 2017.

Upjohn, B., Fenton, G. and Conyers, M., (2005) Agfacts: Soil Acidity and Liming. Agfact AC.19, 3rd Edition. NSW Department of Primary Industries. Website: www.dpi.nsw.gov.au . Accessed: 7 February 2017..

UNESCO (2011-12) Aluminium. Website: http://www.gwadi.org/tools/tracers/aluminum . Accessed: 7 February 2017.

Appendix A. **Detailed Site Sampling Plan**



ecoteam natural solutions for environmental challenges	**Project No: 17041** **Project Title: Blakebrook Quarry Preliminary Site Investigation** **Drawing Title: Site Overview**	Dated: Rev: Drawn: Review: SCALE:	07/06/2017 1 LB SS 1 : 17000

SCALE:

500 0 500 1000 m

Appendix B. Sampling Methodology – Surface Water, Groundwater and Soil

Surface Water Sampling methodology & procedures were as follows:

- New sample bottles were collected from EAL prior to the site assessment.
- Water sampling locations were chosen based on the pre-existing monitoring points.
- An extendable pole was used to collect the water sample. A clean plastic bottle was secured to the pole and lowered 30cm below the water surface.
- Samples were stored in an esky and submitted for analysis the same day as collection.
- In-situ measurements were collected by attaching the SmarTROLL to the extendable pole and lowering it 30cm below the water surface. Measurements were recorded on the InSitu iPhone app.

Analysis for all metals and TSS was conducted by the NATA accredited Southern Cross University Environmental Analysis Laboratory, Military Road, Lismore (SCU EAL).

Groundwater Sampling methodology & procedures were as follows:

- A new sample bottle was collected from EAL prior to the site assessment.
- The groundwater sampling location was chosen based on a pre-existing monitoring point.
- A 1L volume HydraSleeve was lowered into the well to 105m and secured to the top of the well using rope.
- The HydraSleeve was left in the well for at least four days to allow the water column to settle prior to sample collection.
- To collect the water sample, the HydraSleeve was pulled up 3 – feet very rapidly through the screen interval.
- In-situ measurements were collected by analysing a small volume of groundwater from the HydraSleeve. Measurements were recorded on the InSitu iPhone app.
- The remaining groundwater was transferred to a clean plastic bottle
- Samples were stored in an esky on ice until submitted for analysis on the same day.

Analysis for all metals and TSS was conducted by the NATA accredited Southern Cross University Environmental Analysis Laboratory, Military Road, Lismore (SCU EAL).

Soil sampling methodology & procedures were as follows:

- Glovers were used to collect surface soil samples.
- Samples were immediately placed in glass jars.
- Samples were stored in an esky with ice and transported to the laboratory on the same day.
- Sampling equipment was decontaminated using industry-standard detergent (DECON90 or similar) prior to sampling.

Analysis for all metals was conducted by the NATA accredited Southern Cross University Environmental Analysis Laboratory, Military Road, Lismore (SCU EAL).

Appendix C. **Completed Chain of Custody Forms**

F7848 x 4 water

CHAIN OF CUSTODY

eal Environmental Analysis Laboratory

PO Box 157 (Military Road)
LISMORE NSW 2480
P| 02 6620 3678 F| 02 6620 3957
eal@scu.edu.au, www.scu.edu.au/eal

Submitting Client Details

Quote Id:
Job Ref: 17041
Company Nam [redacted]
Contact Perso [redacted]
Phone: 6621 5123
Mobile:
Fax:
Email: [redacted] team.com au
Postal Address:

Billing Client Details

ABN:
Company Name: Ecoteam.
Contact Person:
Phone:
Mobile:
Fax:
Email:
Postal Address:

This section will be destroyed after being processed. Only Complete CVV number if you are supplying the original hardcopy to EAL.

Payment Method:
☐ Purchase Order
☐ Cheque
☐ Invoice (prior approval required)
☐ Credit Card Mastercard / Visa No:_____/_____/_____/_____

Exp. Date: Name on Card: CVV:

	Date	Signed
Relinquished By: [redacted]	16-3-17	
Preservation: None / Ice / Ice bricks / Acidified / Filtered / Other:		
Received By: KC	16/3/17	
Condition on receipt: Ambient / Cool / Frozen / Other:		

Comments:

Marketing Survey – where did you find us?
☐ Word of mouth ☐ Magazine ☐ Google search ☐ Other

Sample Analysis Request
Price List Code (e.g. SW-PACK-06)

Lab Sample No.	Sample ID	Sample Depth	Sampling Date	Your Client	Crop ID	Sample Type (e.g. water, leaf, soil)	TSS SW-SING-003	SW-Prep-002	SW-Prep-003	SW-Sing-102	SW-Sing-103	SW-Sing-104				
1	SW1		16-3-17	17041		W	x	x	x		x	x				
2	SW2		16-3-17	"		W	x	x	x		x	x				
3	SW3		16-3-17	"		W	x	x	x		x	x				
4	SW4		"	"		W	x	x	x		x	x				

Al+Cu
Al+Cu

EAL Chain of Custody
Issue: V1.1 27/09/2016

EAL Project Reference:

QFORM 4.2
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F8366

CHAIN OF CUSTODY

eal Environmental Analysis Laboratory

PO Box 157 (Military Road)
LISMORE NSW 2480
P| 02 6620 3678 F| 02 6620 3957
eal@scu.edu.au, www.scu.edu.au/eal

Submitting Client Details

Quote Id:
Job Ref: 17041
Company Name: Ecoteam
Contact Person: [redacted]
Phone: 0428 346 622
Mobile:
Fax:
Email: [redacted].com.au
Postal Address:

Billing Client Details

ABN: x1 water
Company Name:
Contact Person: Robyn
Phone:
Mobile:
Fax:
Email:
Postal Address:

This section will be destroyed after being processed. Only Complete CVV number if you are supplying the original hardcopy to EAL.

Payment Method:
☐ Purchase Order
☐ Cheque
☐ Invoice (prior approval required)
☐ Credit Card Mastercard / Visa No:_____/_____/_____/_____

Exp. Date: Name on Card: CVV:_____

		Date	Signed
Relinquished By:	Lise Bolton	5/4/17	
Preservation: None / Ice / Ice bricks / Acidified / Filtered / Other:			
Received By:		5.4.17	
Condition on receipt: Ambient / Cool / Frozen / Other:			

Comments:

Marketing Survey – where did you find us?
☐ Word of mouth ☐ Magazine ☐ Google search ☐ Other

Sample Analysis Request

Price List Code (e.g. SW-PACK-06)

Lab Sample No.	Sample ID	Sample Depth	Sampling Date	Your Client	Crop ID	Sample Type (e.g. water, leaf, soil)	SW-PACK-029 (Total Metals)	SW-PACK-040 (Diss Metals)	SW-SING-03 TSS	SW-SING-05 pH						
1	GW001		5/4/17			Water	✓	✓	✓	✓						

F8143 X2 Soil

CHAIN OF CUSTODY

eal Environmental Analysis Laboratory

PO Box 157 (Military Road)
LISMORE NSW 2480
P| 02 6620 3678 F| 02 6620 3957
eal@scu.edu.au, www.scu.edu.au/eal

Submitting Client Details

Quote Id:
Job Ref: 17041
Company Name: [redacted]
Contact Person: [redacted]
Mobile:
Fax:
Email: [redacted]
Postal Address:

Billing Client Details

ABN:
Company Name:
Contact Person:
Phone:
Mobile:
Fax:
Email:
Postal Address:

This section will be destroyed after being processed. Only Complete CVV number if you are supplying the original hardcopy to EAL.

Payment Method:
☐ Purchase Order
☐ Cheque
☐ Invoice (prior approval required)
☐ Credit Card Mastercard / Visa No:_____/_____/_____/_____
Exp. Date: Name on Card: CVV:_____

	Date	Signed
Relinquished By: [redacted]		
Preservation: None / Ice / Ice bricks / Acidified / Filtered / Other:		
Received By: KC	28/3/17	
Condition on receipt: Ambient / Cool / Frozen / Other:		

Comments:

Marketing Survey – where did you find us?
☐ Word of mouth ☐ Magazine ☐ Google search ☐ Other

Sample Analysis Request

Price List Code (e.g. SW-PACK-06)

Lab Sample No.	Sample ID	Sample Depth	Sampling Date	Your Client	Crop ID	Sample Type (e.g. water, leaf, soil)	CC4 SS-PACK-004									
1	S02	150 mm	28/3			Soil	X									
2	S03	150mm	28/3			Soil	X									

EAL Chain of Custody
Issue: V1.1 27/09/2016

EAL Project Reference:

QFORM 4.2
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Appendix D. **Laboratory Reports**

RESULTS OF WATER ANALYSIS

4 samples supplied by Ecoteam on the 16th March, 2017 - Lab. Job No. F7848
Analysis requested by [redacted]. Your Project: 17041
(43 Ewing Street LISMORE NSW 2480).

PARAMETER	METHODS REFERENCE	Sample 1 SW1	Sample 2 SW2	Sample 3 SW3	Sample 4 SW4
	Job No.	*F7848/1*	*F7848/2*	*F7848/3*	*F7848/4*
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	35	29	69	69
ALUMINIUM (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.819	3.469	4.275	0.957
COPPER (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.003	0.002	0.002	0.005
ALUMINIUM (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.172	1.117	0.883	0.256
COPPER (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.002	0.002	0.002	0.002

Notes:
1. Total metals - samples digested with nitric acid
1. Dissolved metals - samples filtered through 0.45μm cellulose acetate and then acidified with nitric acid prior to analysis
2. Metals/ salts analysed by ICP-MS (Inductively Coupled Plasma - Mass Spectrometry) or ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry)
3. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 μg/L (micrograms per litre)= 1000 ppb (part per billion)
4. For conductivity - 1 dS/m = 1 mS/cm = 1000 μS/cm
5. Analysis performed according to APHA, 2012, "Standard Methods for the Examination of Water & Wastewater", 22nd Edition, except where stated otherwise.
6. Analysis conducted between sample arrival date and Report provision date
7. ** denotes these test procedure or calculation are as yet not NATA accredited but quality control data is available
8. .. Denotes not requested

NATA
Accreditation No. 14960.
Accredited for compliance with ISO/IEC 17025.

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

[redacted]
Laboratory Manager

RESULTS OF WATER ANALYSIS

1 sample supplied by Ecoteam on the 5th April, 2017 - Lab. Job No. F8366
Analysis requested by [redacted]. Your Project: 17041
(43 Ewing Street LISMORE NSW 2480).

PARAMETER	METHODS REFERENCE	Sample 1 GW001 5/04/17
	Job No.	F8366/1
pH	APHA 4500-H+-B	8.97
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	74
SILVER (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001
ALUMINIUM (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.707
ARSENIC (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.003
CADMIUM (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001
CHROMIUM (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.005
COPPER (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.009
IRON (mg/L)	Total - APHA 3125 ICPMS*note 1&2	2.372
MANGANESE (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.035
NICKEL (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.010
LEAD (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.001
SELENIUM (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.001
ZINC (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.047
MERCURY (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.0005
SILVER (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001
ALUMINIUM (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.037
ARSENIC (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.004
CADMIUM (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001
CHROMIUM (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.001
COPPER (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.001
IRON (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.010
MANGANESE (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.008
NICKEL (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.002
LEAD (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001
SELENIUM (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.002
ZINC (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.003
MERCURY (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.0005

Notes:

1. Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to <2pH.
1. Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
2. Metals/ salts analysed by ICP-MS (Inductively Coupled Plasma - Mass Spectrometry) or ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry)
3. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre)= 1000 ppb (part per billion)
4. For conductivity - 1 dS/m = 1 mS/cm = 1000 µS/cm
5. Analysis performed according to APHA, 2012, "Standard Methods for the Examination of Water & Wastewater", 22nd Edition, except where stated otherwise.
6. Analysis conducted between sample arrival date and Report provision date
7. ** denotes these test procedure or calculation are as yet not NATA accredited but quality control data is available
8. .. Denotes not requested

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Accreditation No. 14968.
Accredited for compliance with ISO/IEC 17025.

[redacted]
Laboratory Manager

Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

RESULTS OF SOIL ANALYSIS

2 samples supplied by Ecoteam on 28th March, 2017 - Lab Job No. F8143
Analysis requested by [redacted]. Your Project: 17041
(43 Ewing Street LISMORE NSW 2480).

	Method	Sample 1 S02	Sample 2 S03
	Job No.	*F8143/1*	*F8143/2*
METALS			
Silver (mg/Kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	<0.1	<0.1
Arsenic (mg/Kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	1.8	3.5
Lead (mg/Kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	7.4	9.6
Cadmium (mg/Kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	0.1	0.1
Chromium (mg/Kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	43	48
Copper (mg/Kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	18	9
Manganese (mg/Kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	100	270
Nickel (mg/Kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	7.3	8.0
Selenium (mg/Kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	1.4	1.6
Zinc (mg/Kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	81	65
Mercury (mg/Kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	<0.1	<0.1
Iron (%)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	5.7	10.2
Aluminium (%)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	3.6	2.6

Notes:
1: ECEC = Effective Cation Exchange Capacity = sum of the exchangeable Mg, Ca, Na, K, H and Al
2: Exchangeable bases determined using standard Ammonium Acetate extract (Method 15D3) with no pretreatment for soluble salts. When Conductivity ≥0.25 dS/m soluble salts are removed (Method 15E2).
3. ppm = mg/Kg dried sample
4. Exchangeable sodium percentage (ESP) is calculated as sodium ($cmol^+/Kg$) divided by ECEC
5. All results as dry weight DW - samples were dried at 40°C for 24-48hrs prior to crushing and analysis.
6. Aluminium detection limit is 0.05 $cmol^+/Kg$; Hydrogen detection limit is 0.1 $cmol^+/Kg$. However for calculation purposes a value of 0 is used.
7. For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm
8. 1 $cmol^+/Kg$ = 1 meq/100g
9. Methods from Rayment and Lyons, Soil Chemical Methods - Australasia
10. Conversion of cmol+/Kg to mg/Kg multiply cmol+/Kg by:
230 for Sodium; 391 for Potassium; 200 for Calcium; 122 for Magnesium; 90 for Aluminium
11. Metals analysed by ICP-MS (Inductively Coupled Plasma - Mass Spectrometry) or ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry)

NATA
Accreditation No. 14960.
Accredited for compliance with ISO/IEC 17025.

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[redacted]
Laboratory Manager

Appendix E. Site Photographs

Plate 1
28/3/2017
Hydra Sleeve being lowered into BQN1-D groundwater well.

Plate 2
16/3/2017
Highly turbid streamflow in Terania Creek at SW3, following significant rain. Noting bank erosion.

Plate 3
16/03/2017
Ponding of surface water near surface water discharge point SW4.

Plate 4
16/03/2017
Fractured basalt on Quarry floor near SW4.

Plate 5
28/03/2017
Distinct soil layers of Wollongbar landscape. Exposed and fractured basalt also evident on Quarry face.

Appendix F. **Insurances**

Insurance Class	Policy No.	Insurer	Period of Insurance	Limit of Liability
Worker's Compensation	WC438588157	QBE Workers Compensation	31 October 2016 - 31 October 2017	$2,000,000
Professional Indemnity	P-PI/0/58221/14/F-6	DUAL Australia Pty Ltd On behalf of certain underwriters at Lloyd's	30 January 2017 - 30 January 2018	$5,000,000
Public/Products Liability	12120041	Sterling Insurance Pty Ltd 100% underwritten by certain underwriters at Lloyd's	10 December 2016 - 10 December 2017	$10,000,000

Australian Government

BIOREGIONAL ASSESSMENTS

PROVIDING SCIENTIFIC WATER RESOURCE INFORMATION ASSOCIATED WITH COAL SEAM GAS AND LARGE COAL MINES

Current water accounts and water quality for the Clarence-Moreton bioregion

Product 1.5 from the Clarence-Moreton Bioregional Assessment

22 October 2015

A scientific collaboration between the Department of the Environment, Bureau of Meteorology, CSIRO and Geoscience Australia

The Bioregional Assessment Programme

The Bioregional Assessment Programme is a transparent and accessible programme of baseline assessments that increase the available science for decision making associated with coal seam gas and large coal mines. A bioregional assessment is a scientific analysis of the ecology, hydrology, geology and hydrogeology of a bioregion with explicit assessment of the potential direct, indirect and cumulative impacts of coal seam gas and large coal mining development on water resources. This Programme draws on the best available scientific information and knowledge from many sources, including government, industry and regional communities, to produce bioregional assessments that are independent, scientifically robust, and relevant and meaningful at a regional scale.

The Programme is funded by the Australian Government Department of the Environment. The Department of the Environment, Bureau of Meteorology, CSIRO and Geoscience Australia are collaborating to undertake bioregional assessments. For more information, visit http://www.bioregionalassessments.gov.au.

Department of the Environment

The Office of Water Science, within the Australian Government Department of the Environment, is strengthening the regulation of coal seam gas and large coal mining development by ensuring that future decisions are informed by substantially improved science and independent expert advice about the potential water related impacts of those developments. For more information, visit http://www.environment.gov.au/coal-seam-gas-mining/.

Bureau of Meteorology

The Bureau of Meteorology is Australia's national weather, climate and water agency. Under the *Water Act 2007*, the Bureau is responsible for compiling and disseminating Australia's water information. The Bureau is committed to increasing access to water information to support informed decision making about the management of water resources. For more information, visit http://www.bom.gov.au/water/.

CSIRO

Australia is founding its future on science and innovation. Its national science agency, CSIRO, is a powerhouse of ideas, technologies and skills for building prosperity, growth, health and sustainability. It serves governments, industries, business and communities across the nation. For more information, visit http://www.csiro.au.

Geoscience Australia

Geoscience Australia is Australia's national geoscience agency and exists to apply geoscience to Australia's most important challenges. Geoscience Australia provides geoscientific advice and information to the Australian Government to support current priorities. These include contributing to responsible resource development; cleaner and low emission energy technologies; community safety; and improving marine planning and protection. The outcome of Geoscience Australia's work is an enhanced potential for the Australian community to obtain economic, social and environmental benefits through the application of first class research and information. For more information, visit http://www.ga.gov.au.

ISBN-PDF 978-1-925315-50-9

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http://data.bioregionalassessments.gov.au/product/CLM/CLM/1.5.

Authorship is listed in relative order of contribution.

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The Bioregional Assessment Programme is committed to providing web accessible content wherever possible. If you are having difficulties with accessing this document please contact bioregionalassessments@bom.gov.au.

Cover photograph

Rainforest waterfall in Border Ranges National Park, NSW, 2008

Credit: Liese Coulter, CSIRO

Australian Government
Department of the Environment
Bureau of Meteorology
Geoscience Australia

CSIRO

Contents

Figures

Tables

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This technical product was reviewed by several groups:

- Discipline Leaders: Anthony O'Grady (ecology), Richard Mount (assets)
- Senior Science Leaders: David Post (Projects Director), Steve Lewis (Science Director, Geoscience Australia), Brent Henderson (Science Director, CSIRO), Becky Schmidt (Products Manager, CSIRO)
- Technical Assurance Reference Group: Chaired by Peter Baker (Principal Science Advisor, Department of the Environment), this group comprises officials from the NSW, Queensland, South Australian and Victorian governments.

Introduction

The Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC) was established to provide advice to the federal Minister for the Environment on potential water-related impacts of coal seam gas (CSG) and large coal mining developments.

Bioregional assessments (BAs) are one of the key mechanisms to assist the IESC in developing this advice so that it is based on best available science and independent expert knowledge. Importantly, technical products from BAs are also expected to be made available to the public, providing the opportunity for all other interested parties, including government regulators, industry, community and the general public, to draw from a single set of accessible information. A BA is a scientific analysis, providing a baseline level of information on the ecology, hydrology, geology and hydrogeology of a bioregion with explicit assessment of the potential direct, indirect and cumulative impacts of CSG and coal mining development on water resources.

The IESC has been involved in the development of *Methodology for bioregional assessments of the impacts of coal seam gas and coal mining development on water resources* (the BA methodology; Barrett et al., 2013) and has endorsed it. The BA methodology specifies how BAs should be undertaken. Broadly, a BA comprises five components of activity, as illustrated in Figure 1. Each BA will be different, due in part to regional differences, but also in response to the availability of data, information and fit-for-purpose models. Where differences occur, these are recorded, judgments exercised on what can be achieved, and an explicit record is made of the confidence in the scientific advice produced from the BA.

The Bioregional Assessment Programme

The Bioregional Assessment Programme is a collaboration between the Department of the Environment, the Bureau of Meteorology, CSIRO and Geoscience Australia. Other technical expertise, such as from state governments or universities, is also drawn on as required. For example, natural resource management groups and catchment management authorities identify assets that the community values by providing the list of water-dependent assets, a key input.

The Technical Programme, part of the Bioregional Assessment Programme, will undertake BAs for the following bioregions and subregions:

- the Galilee, Cooper, Pedirka and Arckaringa subregions, within the Lake Eyre Basin bioregion
- the Maranoa-Balonne-Condamine, Gwydir, Namoi and Central West subregions, within the Northern Inland Catchments bioregion
- the Clarence-Moreton bioregion
- the Hunter and Gloucester subregions, within the Northern Sydney Basin bioregion
- the Sydney Basin bioregion
- the Gippsland Basin bioregion.

Technical products (described in a later section) will progressively be delivered throughout the Programme.

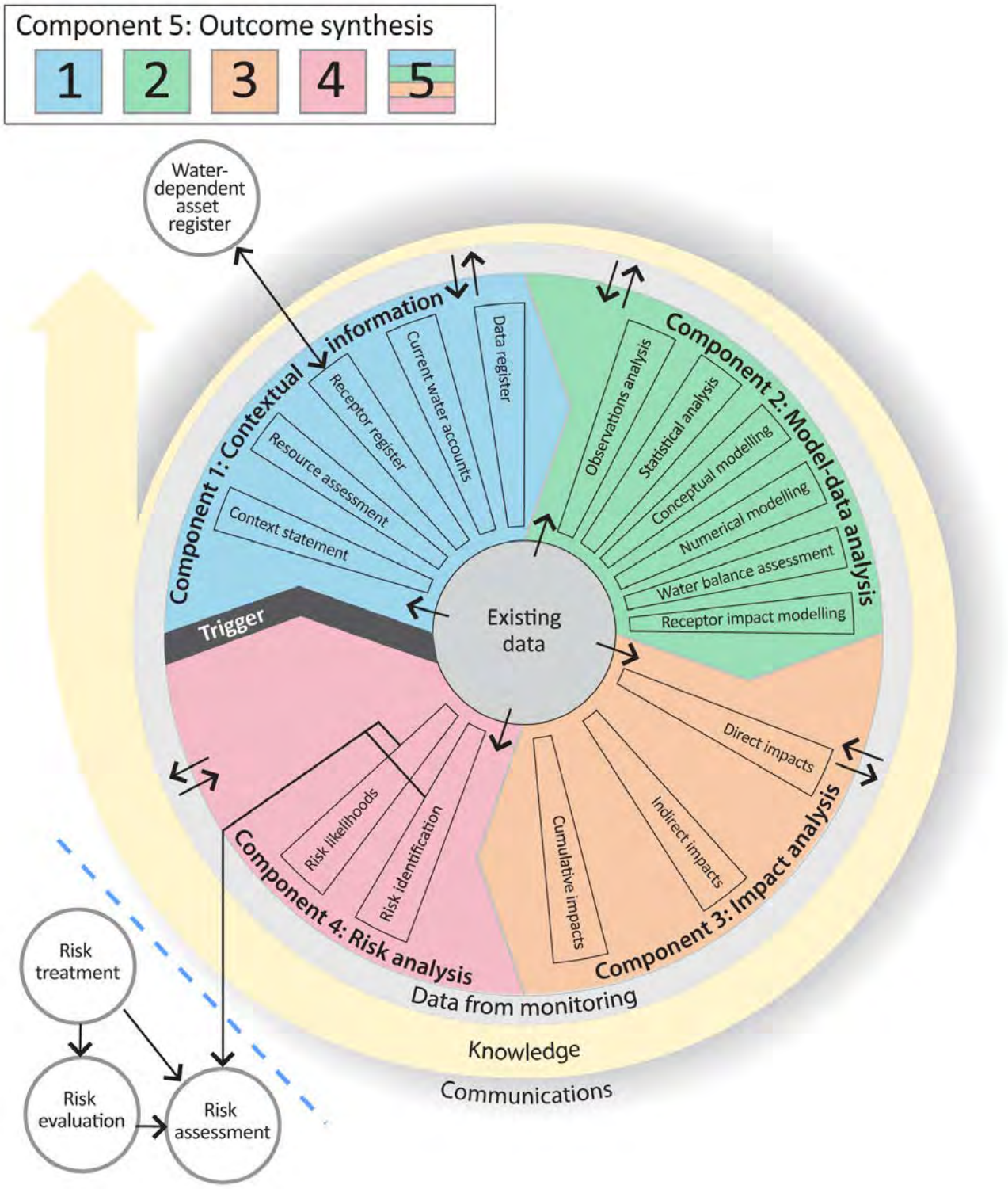

Figure 1 Schematic diagram of the bioregional assessment methodology

The methodology comprises five components, each delivering information into the bioregional assessment and building on prior components, thereby contributing to the accumulation of scientific knowledge. The small grey circles indicate activities external to the bioregional assessment. Risk identification and risk likelihoods are conducted within a bioregional assessment (as part of Component 4) and may contribute activities undertaken externally, such as risk evaluation, risk assessment and risk treatment. Source: Figure 1 in Barrett et al. (2013), © Commonwealth of Australia

Methodologies

For transparency and to ensure consistency across all BAs, submethodologies have been developed to supplement the key approaches outlined in the *Methodology for bioregional assessments of the impact of coal seam gas and coal mining development on water resources* (Barrett et al., 2013). This series of submethodologies aligns with technical products as presented in Table 1. The submethodologies are not intended to be 'recipe books' nor to provide step-by-step instructions; rather they provide an overview of the approach to be taken. In some instances, methods applied for a particular BA may need to differ from what is proposed in the submethodologies – in this case an explanation will be supplied. Overall, the submethodologies are intended to provide a rigorously defined foundation describing how BAs are undertaken.

Table 1 Methodologies and associated technical products listed in Table 2

Code	Proposed title	Summary of content	Associated technical product
M01	*Methodology for bioregional assessments of the impacts of coal seam gas and coal mining development on water resources*	A high-level description of the scientific and intellectual basis for a consistent approach to all bioregional assessments	All
M02	*Compiling water-dependent assets*	Describes the approach for determining water-dependent assets	1.3 Description of the water-dependent asset register
M03	*Assigning receptors and impact variables to water-dependent assets*	Describes the approach for determining receptors associated with water-dependent assets	1.4 Description of the receptor register
M04	*Developing a coal resource development pathway*	Specifies the information that needs to be collected and reported in product 1.2 (i.e. known coal and coal seam gas resources as well as current and potential resource developments). Describes the process for determining the coal resource development pathway (reported in product 2.3)	1.2 Coal and coal seam gas resource assessment 2.3 Conceptual modelling
M05	*Developing the conceptual model for causal pathways*	Describes the development of the conceptual model for causal pathways, which summarises how the 'system' operates and articulates the links between coal resource developments and impacts on receptors	2.3 Conceptual modelling
M06	*Surface water modelling*	Describes the approach taken for surface water modelling across all of the bioregions and subregions. It covers the model(s) used, as well as whether modelling will be quantitative or qualitative.	2.6.1 Surface water numerical modelling
M07	*Groundwater modelling*	Describes the approach taken for groundwater modelling across all of the bioregions and subregions. It covers the model(s) used, as well as whether modelling will be quantitative or qualitative. It also considers surface water – groundwater interactions, as well as how the groundwater modelling is constrained by geology.	2.6.2 Groundwater numerical modelling

Code	Proposed title	Summary of content	Associated technical product
M08	*Receptor impact modelling*	Describes how to develop the receptor impact models that are required to assess the potential impacts from coal seam gas and large coal mining on receptors. Conceptual, semi-quantitative and quantitative numerical models are described.	2.7 Receptor impact modelling
M09	*Propagating uncertainty through models*	Describes the approach to sensitivity analysis and quantifying uncertainty in the modelled hydrological response to coal and coal seam gas development	2.3 Conceptual modelling 2.6.1 Surface water numerical modelling 2.6.2 Groundwater numerical modelling 2.7 Receptor impact modelling
M10	*Risk and cumulative impacts on receptors*	Describes the process to identify and analyse risk	3 Impact analysis 4 Risk analysis
M11	*Hazard identification*	Describes the process to identify potential water-related hazards from coal and coal seam gas development	2 Model-data analysis 3 Impact analysis 4 Risk analysis
M12	*Fracture propagation and chemical concentrations*	Describes the likely extent of both vertical and horizontal fractures due to hydraulic stimulation and the likely concentration of chemicals after production of coal seam gas	2 Model-data analysis 3 Impact analysis 4 Risk analysis

Each submethodology is available online at http://www.bioregionalassessments.gov.au. Submethodologies might be added in the future.

Technical products

The outputs of the BAs include a suite of technical products variously presenting information about the ecology, hydrology, hydrogeology and geology of a bioregion and the potential direct, indirect and cumulative impacts of CSG and coal mining developments on water resources, both above and below ground. Importantly, these technical products are available to the public, providing the opportunity for all interested parties, including community, industry and government regulators, to draw from a single set of accessible information when considering CSG and large coal mining developments in a particular area.

The information included in the technical products is specified in the BA methodology. Figure 2 shows the information flow within a BA. Table 2 lists the content provided in the technical products, with cross-references to the part of the BA methodology that specifies it. The red rectangles in both Figure 2 and Table 2 indicate the information included in this technical product.

This technical product is delivered as a report (PDF). Additional material is also provided, as specified by the BA methodology:

- all unencumbered data syntheses and databases
- unencumbered tools, model code, procedures, routines and algorithms
- unencumbered forcing, boundary condition, parameter and initial condition datasets
- the workflow, comprising a record of all decision points along the pathway towards completion of the BA, gaps in data and modelling capability, and provenance of data.

The PDF of this technical product, and the additional material, are available online at http://www.bioregionalassessments.gov.au.

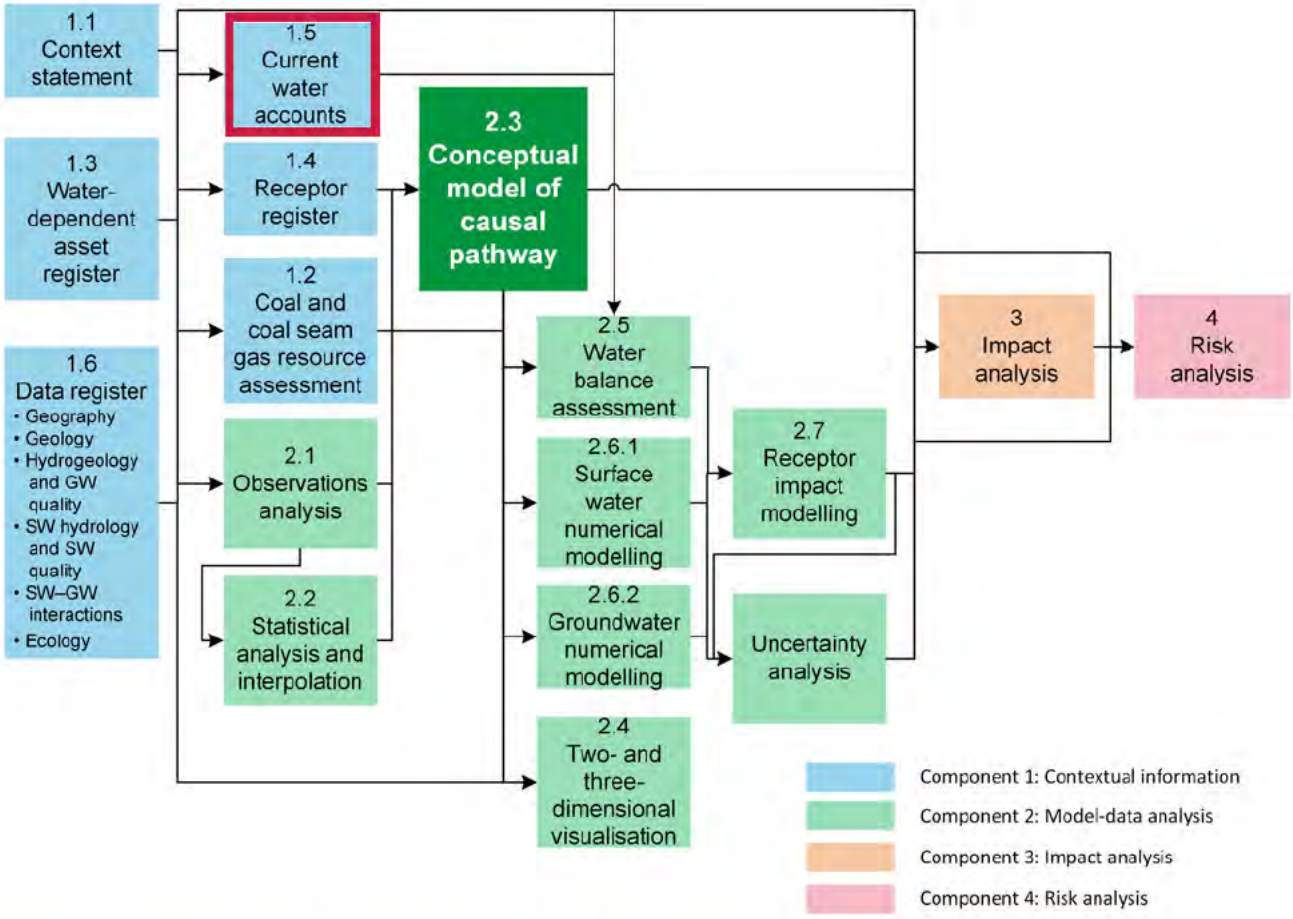

Figure 2 The simple decision tree indicates the flow of information through a bioregional assessment

The red rectangle indicates the information included in this technical product.

Table 2 Technical products delivered by the Clarence-Moreton Bioregional Assessment

For each subregion in the Clarence-Moreton Bioregional Assessment, technical products are delivered online at http://www.bioregionalassessments.gov.au, as indicated in the 'Type' column[a]. Other products – such as datasets, metadata, data visualisation and factsheets – are provided online.

Component	Product code	Title	Section in the BA methodology[b]	Type[a]
Component 1: Contextual information for the Clarence-Moreton bioregion	1.1	Context statement	2.5.1.1, 3.2	PDF, HTML
	1.2	Coal and coal seam gas resource assessment	2.5.1.2, 3.3	PDF, HTML
	1.3	Description of the water-dependent asset register	2.5.1.3, 3.4	PDF, HTML, register
	1.4	Description of the receptor register	2.5.1.4, 3.5	PDF, HTML, register
	1.5	Current water accounts and water quality	2.5.1.5	PDF, HTML
	1.6	Data register	2.5.1.6	Register
Component 2: Model-data analysis for the Clarence-Moreton bioregion	2.1-2.2	Observations analysis, statistical analysis and interpolation	2.5.2.1, 2.5.2.2	PDF, HTML
	2.3	Conceptual modelling	2.5.2.3, 4.3	PDF, HTML
	2.5	Water balance assessment	2.5.2.4	PDF, HTML
	2.6.1	Surface water numerical modelling	4.4	PDF, HTML
	2.6.2	Groundwater numerical modelling	4.4	PDF, HTML
	2.7	Receptor impact modelling	2.5.2.6, 4.5	Not produced
Component 3: Impact analysis for the Clarence-Moreton bioregion	3-4	Impact analysis	5.2.1	PDF, HTML
Component 4: Risk analysis for the Clarence-Moreton bioregion		Risk analysis	2.5.4, 5.3	
Component 5: Outcome synthesis for the Clarence-Moreton bioregion	5	Outcome synthesis	2.5.5	PDF, HTML

[a]The types of products are as follows:

- 'PDF' indicates a PDF document that is developed by the Clarence-Moreton Bioregional Assessment using the structure, standards, and look and feel specified by the programme.
- 'HTML' indicates the same content as in the PDF document, but delivered as webpages.
- 'Register' indicates controlled lists that are delivered using a variety of formats as appropriate.
- 'Not produced' indicates that the product was not developed. A webpage explains why and points to relevant submethodologies (Table 1).

About this technical product

The following notes are relevant only for this technical product.

- All reasonable efforts were made to provide all material under a Creative Commons Attribution 3.0 Australia Licence.
- All maps created as part of this BA for inclusion in this product used the Albers equal area projection with a central meridian of 151.0° East for the Clarence-Moreton bioregion and two standard parallels of –18.0° and –36.0°.
- Contact bioregionalassessments@bom.gov.au to access metadata (including copyright, attribution and licensing information) for all datasets cited or used to make figures in this product. At a later date, this information, as well as all unencumbered datasets, will be published online.
- The citation details of datasets are correct to the best of the knowledge of the Bioregional Assessment Programme at the publication date of this product. Readers should use the hyperlinks provided to access the most up-to-date information about these data; where there are discrepancies, the information provided online should be considered correct. The dates used to identify Bioregional Assessment Source Datasets are the dataset's created date. Where a created date is not available, the publication date or last updated date is used.

References

Barrett DJ, Couch CA, Metcalfe DJ, Lytton L, Adhikary DP and Schmidt RK (2013) Methodology for bioregional assessments of the impacts of coal seam gas and coal mining development on water resources. A report prepared for the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development through the Department of the Environment. Department of the Environment, Australia. Viewed 20 November 2015, http://www.iesc.environment.gov.au/publications/methodology-bioregional-assessments-impacts-coal-seam-gas-and-coal-mining-development-water.

1.5 Current water accounts and water quality for the Clarence-Moreton bioregion

This product provides current water account and water quality information that will be used in subsequent products in the bioregional assessment.

The water accounts include information about water stores, flows, allocations and use that will be required in the water balance (product 2.5) and in the numerical modelling (product 2.6.1 and product 2.6.2).

This product also provides information about surface water and groundwater quality that will be required for the impact and risk analysis (product 3-4).

1.5.1 Current water accounts

Summary

Current coal and coal seam gas (CSG) development and exploration, which may impact water resources are primarily located in an area to the west of the town of Casino in the Richmond river basin. The surface water accounts were only determined for the Richmond river basin as this is the area being modelled. The Richmond river basin includes the Richmond and Wilsons rivers with small contributions from Eden Creek and Shannon Brook. There are two main reservoirs (Toonumbar and Rocky Lake) and a few small dams and weirs that supply water to agricultural, domestic and municipal users. The combined storage volume in the main reservoirs is 25 GL. The main surface water resource of the Richmond river basin is the Richmond River. In the Richmond river basin, permits to extract surface water amount to 99.8 GL/year.

The groundwater accounts were also restricted to the model domain of the numerical groundwater model, whose boundaries were constrained by knowledge of the geology, previous studies in the Clarence-Moreton Basin and Surat Basin, and common modeling practise. The analysis lacks measurement of actual groundwater usage, hence, it was estimated using the allocation data in the NSW state groundwater database (Bioregional Assessment Programme, Dataset 2 in Section 1.5.1.2). Those estimates indicated that 88.1% of the bores have allocations of less than or equal to 5 ML/year. Of the estimated water usage, 49.5% and 42% is allocated for irrigation and domestic/stock bores, respectively. The Richmond River alluvium and Lamington Volcanics represent the two main groundwater supply aquifers with much smaller allocations in the Grafton Formation and the Walloon Coal Measures. The NSW water sharing plans are developed to preserve surface water and groundwater by balancing the competing demands of different types of water usages. They are defined based on surface river basins and groundwater systems.

1.5.1.1 Surface water

The modelling boundary (as defined in companion products 2.6.1 and 2.6.2 for the Clarence-Moreton bioregion) is smaller than the preliminary assessment extent (PAE) since the coal resource development pathway is confined to an area within the Richmond river basin. The surface water modelling area is therefore restricted to within the Richmond river basin, for which the water accounts are being reported.

The Richmond River, located in far-north NSW, drains an area of 7020 km^2 from its headwaters in the Border Ranges and the Richmond Range. Further details on the Richmond river basin, including its location in the Clarence-Moreton bioregion, are given in companion product 1.1 for the Clarence-Moreton bioregion (Rassam et al., 2014). Current coal and CSG development and exploration, which may impact water resources are primarily located in the western part of the subregion (west of Casino). Figure 3 shows a detailed stream network, storages, irrigated land and historical coal mines in the Richmond river basin. There is a single mapped mineral deposit just outside the Richmond river basin, which is the Tabulam iron ore deposit (Figure 3). The major

tributaries to the Richmond River upstream of Casino include Iron Pot and Eden creeks (Figure 3). The major tributaries to the Richmond River downstream of Casino include Wilsons River and Coopers, Terania, Leycester, Sandy and Bungawalbin creeks and Shannon Brook. There are numerous other minor tributaries.

Water storages in the basin include Toonumbar Dam (capacity 11 GL excluding flood storage), which stores water for hydro-power, irrigation, stock and town water; and Rocky Lake (capacity 14 GL excluding flood storage), which provides water for the towns of Lismore and Ballina. There are four weir structures on the Richmond River near Casino and one on the Wilsons River that provides water to Mullumbimby in the Brunswick river basin. Irrigated pastures are found around the alluvial flats of the Richmond and Wilson rivers and groundwater is used to irrigate fruit and nut crops on the Alstonville Plateau. With only two main water storages and a few weirs, most of the flows in the Richmond river basin are largely unregulated.

The remainder of this product describes:

- water volumes held in surface water storages
- surface water permits and allocations
- data gaps.

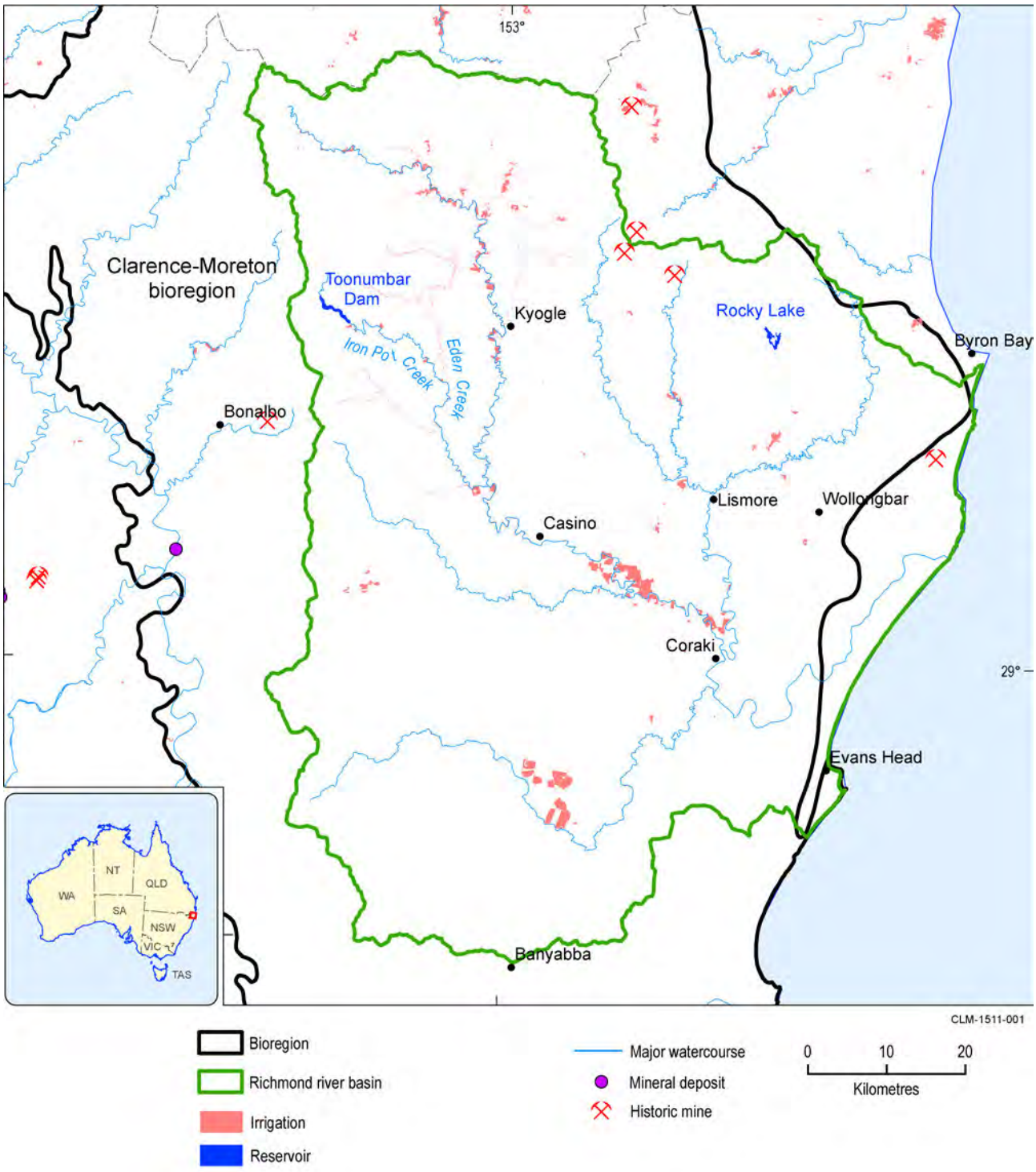

Figure 3 Tributaries of the Richmond River, town centres, irrigation areas and historical coal mines

Data: Streamflow gauge locations obtained from NSW Office of Water (2015). Coal mine and resource data sourced from the OZMIN database (Geoscience Australia, 2013), information current as of December 2012

1.5.1.1.1 Water accounts in the Richmond river basin

With only two main water storages (Toonumbar Dam and Rocky Lake) and a few weirs, flows in the Richmond River are largely unregulated. Storage volumes are summarised in Table 3 and Table 4. The mean daily volume (2004–05 to 2011–12) was 10.59 GL (range 7.29 to 14.05 GL) in Toonumbar Dam. The mean daily volume (2008–09 to 2011–12) was 13.85 GL (range 9.11 to 15.52 GL) in Rocky Lake. The combined mean daily storage was 24.44 GL.

Inflows to the Toonumbar Dam are ungauged but flows are measured below the dam at Iron Pot Creek at Toonumbar (203023). Losses from the Toonumbar Dam storage occur through continual controlled stream releases to supply downstream irrigation and flood releases when storage capacity is exceeded. Mean flows at Iron Pot Creek at Toonumbar were 36.9 GL/year (range 4.1–83.5 GL/year). Other sources of outflow such as evapotranspiration from the reservoir surface also account for losses from the storage.

Table 3 Storage volumes at the start (July) of the water year, inflows and outflows for Toonumbar Dam (11 GL capacity excluding flood storage) in the Richmond river basin

	Volume (GL) (July 1)	Minimum volume (GL)	Maximum volume (GL)	Outflow (GL/y)
2004–05	11.01	7.81	11.01	5.1
2005–06	9.15	7.29	11.70	16.8
2006–07	11.01	9.28	11.12	4.1
2007–08	9.30	8.45	14.05	65.0
2008–09	11.13	10.95	12.52	42.6
2009–10	11.23	10.22	11.85	19.6
2010–11	11.13	10.87	12.73	83.5
2011–12	11.22	11.00	12.18	58.2

Data: Outflow volumes for Toonumbar Dam were obtained from NSW Office of Water (2015). Volumes were obtained from the Bureau of Meteorology (Dataset 1)

Table 4 Storage volumes at the start (July) of the water year for Rocky Lake (14 GL capacity excluding flood storage) in the Richmond river basin

	Volume (GL) (July 1)	Minimum volume (GL)	Maximum volume (GL)
2004–05	NA	NA	NA
2005–06	NA	NA	NA
2006–07	NA	NA	NA
2007–08	NA	NA	NA
2008–09	14.01	9.11	15.52
2009–10	14.08	11.39	14.56
2010–11	14.01	13.20	15.22
2011–12	14.11	13.61	15.21

NA = data not available
Data: Volumes were obtained from the Bureau of Meteorology (Dataset 1)

Surface water licences and entitlements

In the Richmond river basin, licences amount to 99,881 ML/year. Table 5 summarises surface water licences by purpose and Table 6 by type and water source (definitions of some terms are

given in Table 8 of Section 1.5.1.2). Figure 4 shows the geographic distribution and extraction volumes for each licence.

Table 5 Licences grouped by purpose in the Richmond river basin

Purpose	Number of licences	Volume (ML/y)
Town Water Supply	8	6,397
Town Water Supply, Stock	4	2,620
Town Water Supply, Stock, Industrial, Domestic	6	12,358
Town Water Supply, Industrial	4	544
Town Water Supply, Domestic	2	120
Recreation - Low Security	4	100
Stock	5	15
Stock, Industrial, Irrigation	3	573
Stock, Irrigation	14	729
Stock, Irrigation, Domestic	62	745
Stock, Domestic	31	123
Stock, Domestic, Irrigation	10	101
Stock, Domestic, Farming, Irrigation	6	190
Stock, Farming	2	8
Commercial	2	4
Industrial	6	226
Industrial, Stock, Domestic	2	10
Industrial, Irrigation	14	2,547
Industrial - Sand & Gravel	1	37
Irrigation	1199	56,974
Irrigation, Recreation - Low Security	1	41
Irrigation, Stock	2	18
Irrigation, Stock, Domestic	6	141
Irrigation, Industrial	2	795
Irrigation, Industrial (Low Security)	2	66
Irrigation, Domestic	58	653
Irrigation, Farming	129	9,384
Domestic	82	198
Domestic, Stock	4	16
Domestic, Stock, Irrigation	6	45
Domestic, Irrigation	18	158

Purpose	Number of licences	Volume (ML/y)
Domestic, Irrigation, Stock	5	152
Farming	32	152
Farming, Stock, Domestic	2	9
Farming, Irrigation	39	2,723
Farming, Irrigation, Industrial	6	204
Farming, Domestic	10	17
Aquaculture	2	30
Aquaculture, Irrigation	2	168
Conservation of Water, Irrigation	7	345
Experimenal/Research	1	145
TOTAL	1801	99,881

Data: NSW Office of Water (Dataset 2)

Table 6 Licences grouped by river or creek in the Richmond river basin

Asset type	Water source	Number of licences	Volume (ML/y)
Basic Right	Alstonville Area	26	77
Basic Right	Bangalow Area	26	40
Basic Right	Coopers Creek	12	18
Basic Right	Coraki Area	4	9
Basic Right	Eden Creek	1	4
Basic Right	Evans River	1	1
Basic Right	Gradys Creek	3	6
Basic Right	Kyogle Area	5	50
Basic Right	Leycester Creek	5	67
Basic Right	Myall Creek	1	1
Basic Right	Richmond Regulated	4	6
Basic Right	Shannon Brook	4	15
Basic Right	Terania Creek	9	17
Basic Right	Tuckean Area	16	28
Basic Right	Upper Richmond River	4	9
Basic Right	Wyrallah Area	1	4
Water Access Right	Alstonville Area	182	7,474
Water Access Right	Bangalow Area	257	5,927
Water Access Right	Broadwater Area	3	360

Asset type	Water source	Number of licences	Volume (ML/y)
Water Access Right	Coopers Creek	169	5,708
Water Access Right	Coraki Area	203	17,917
Water Access Right	Doubtful Creek	12	185
Water Access Right	Eden Creek	18	524
Water Access Right	Gradys Creek	50	2,340
Water Access Right	Kyogle Area	163	10,265
Water Access Right	Lennox Area	2	42
Water Access Right	Leycester Creek	56	964
Water Access Right	Myall Creek	9	1,419
Water Access Right	Richmond Regulated	80	10,258
Water Access Right	Sandy Creek	6	342
Water Access Right	Shannon Brook	23	436
Water Access Right	Terania Creek	122	14,808
Water Access Right	Tuckean Area	164	4,961
Water Access Right	Upper Richmond River	55	2,232
Water Access Right	Wyrallah Area	105	13,367
	TOTAL	1801	99,881

Water access right refers to the right conferred by law to hold or take water from a water resource.
Data: NSW Office of Water (Dataset 2)

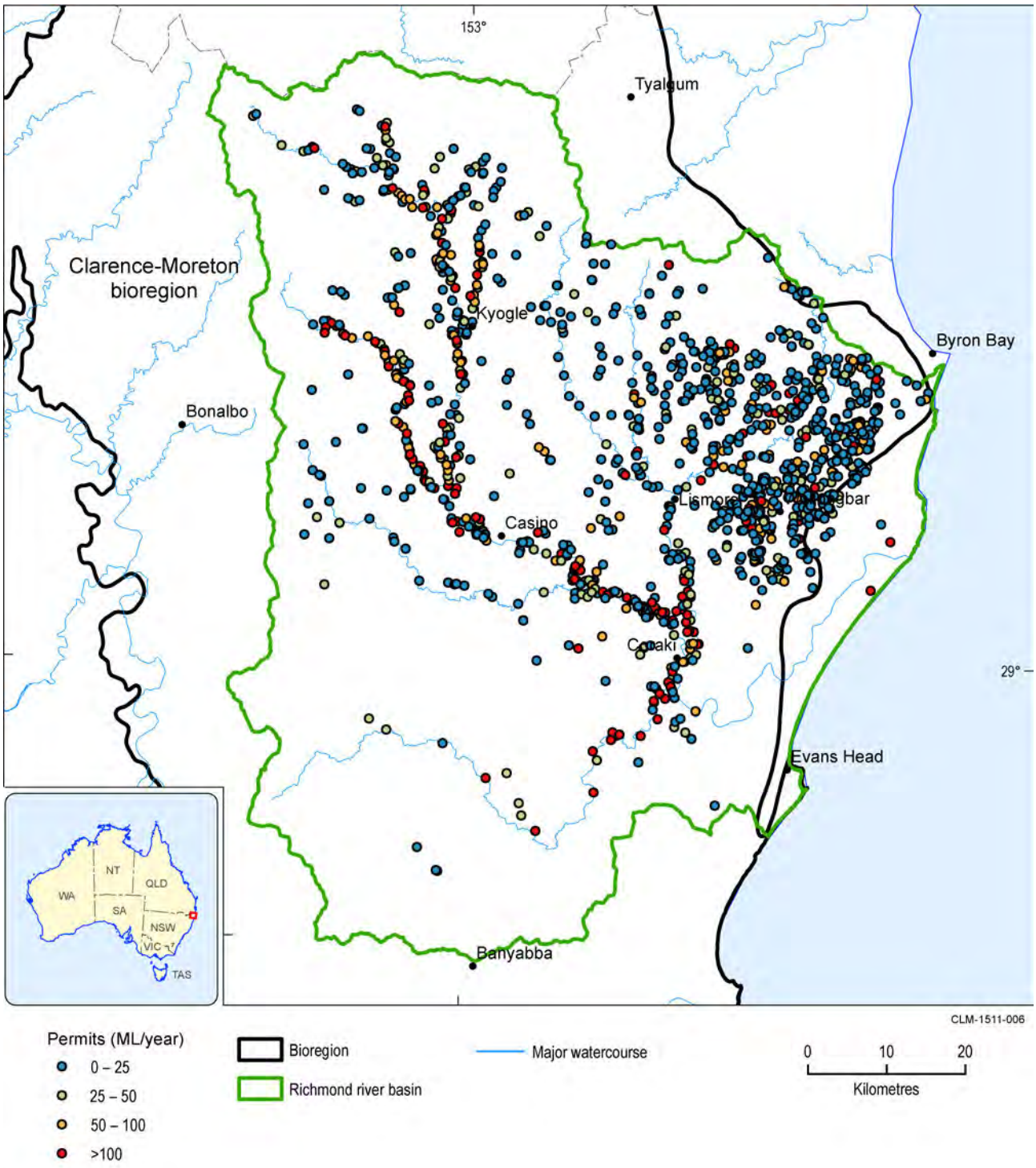

Figure 4 Location of surface water licences in the Richmond river basin (the colour scale indicates the amount of allocated water)

Data: NSW Office of Water (Dataset 2)

1.5.1.1.2 Gaps

There are several unknown water sources and volumes including:

- ungauged tributary inflow
- ungauged runoff
- surface water – groundwater interactions.

Some of the sources not included here are implicitly considered, for example, reservoir rainfall and evaporation would be reflected in changes in the storage volume.

References

Geoscience Australia (2013) OZMIN Mineral Deposits Database, Canberra.

NSW Office of Water (2015) Continuous monitoring network. New South Wales Office of Water. Viewed 17 March 2015, http://realtimedata.water.nsw.gov.au/water.stm.

Rassam D, Raiber M, McJannet D, Janardhanan S, Murray J, Gilfedder M, Cui T, Matveev V, Doody T, Hodgen M and Ahmad ME (2014) Context statement for the Clarence-Moreton bioregion. Product 1.1 from the Clarence-Moreton Bioregional Assessment. Department of the Environment, Bureau of Meteorology, CSIRO and Geoscience Australia, Australia. Viewed 29 April 2015, http://data.bioregionalassessments.gov.au/product/CLM/CLM/1.1.

Datasets

Dataset 1 Bureau of Meteorology (2015) Water levels Selected Dam Storages Time Series NSW BOM CLM 20150327. Bioregional Assessment Source Dataset. Viewed 10 April 2015, http://data.bioregionalassessments.gov.au/dataset/327a70dd-6498-4c8f-9308-bc4a366b66ad.

Dataset 2 NSW Office of Water (2013) Surface Water Offtakes processed for Clarence Moreton v3 12032014. Bioregional Assessment Source Dataset. Viewed 10 April 2015, http://data.bioregionalassessments.gov.au/dataset/715a405b-dc50-46ca-9704-1f698e5b66fc.

1.5.1.2 Groundwater

Analyses of the groundwater accounts were restricted to the area for which a groundwater model will be constructed. The model domain extent and its boundaries were defined based on the following criteria:

- The model's outermost boundaries were determined based on previous modelling studies in the Clarence-Moreton Basin (Parsons Brinkerhoff, 2013) and Surat Basin (QWC, 2012; Moore et al., 2014) and common modelling practice. They were placed to encompass the potential impact zone from previous studies and to be far enough from the coal seam gas development area, such that they do not interfere with the modelling results, that is, it eliminates boundary effects. The distance between the likely development centre and the model boundaries varies from approximately 30 to 70 km.
- Model boundaries should follow existing geological and/or hydrological boundaries.
- Important receptors within and/or close to the development area should be within the areal extents of the groundwater model.

The groundwater model covers a large part of the Richmond river basin, but extends beyond its western border (Figure 5). Hereinafter, the areal extent of the groundwater model is referred to as the model domain.

There are 3934 bores from the National Groundwater Information System (NGIS) (Bureau of Meteorology, Dataset 1) located within the model domain, 3096 of which have construction information that is required to assign bores to aquifers. Among the bores with screen and/or depth information, 145 bores are recorded as being inactive bores, that is, they are labelled as NON (non-functional), RMV (removed), DCM (decommissioned), PRP (proposed), RPL (replaced), or ABN (abandoned) for status (Bureau of Meteorology, Dataset 1). Note that bores in this analysis with unknown status are considered as being active to guarantee that the groundwater model does not under-estimate the likely impacts. There are 2698 of the 2951 active bores that have enough information to be assigned to an aquifer. Furthermore, 187 monitoring bores and 6 exploration bores were excluded from this analysis due to their limited groundwater usage. For the purposes of this report, the total number of bores that were analysed was 2505.

1.5.1.2.1 Current water accounts

Actual measured groundwater usage data are not available for bores within the model domain; hence, they were estimated using the allocation data in the NSW state groundwater database (Bioregional Assessment Programme, Dataset 2). It is assumed that 100% of the allocation will be used. Not all bores require a licence to extract water, for example, stock bores under the basic water right. When an allocation entry is missing for a bore, the median value of the bores with allocations within the same purpose group was adopted. For example, 827 domestic bores are not tied with allocations in the model domain, while 429 domestic bores have allocations. The median allocation of the 429 bores was assigned to the other 827 domestic bores as assumed current water usage. Using this interpolation method, the resulting estimates for water usage are shown in Figure 5, which demonstrate that 88.1% of the bores have allocations of less than or equal to 5 ML/year.

Table 7 and Figure 6 show the estimated water usage categorised by purposes. The NGIS and NSW state groundwater database both have a purpose record for most bores of interest; however, the records in the two databases are not always consistent. The NGIS was used as the primary reference for definition purposes. When an assignment was deemed to be unreasonable on a judgment basis, the definition in the NSW state groundwater database was adopted. The definitions of the purpose codes of the NGIS are described in Table 8. Almost half of the water (49.5%) is consumed by irrigation and 42% of the estimated water usage is attributed to domestic and stock bores. The total volume of groundwater consumed by other users is significantly less that that extracted for irrigation and stock/domestic use.

Table 7 Estimated groundwater usage categorised by purpose in the model domain of the groundwater model for the Clarence-Moreton bioregion

Purpose[a]	Number of bores	Total volume (ML/y)	Mean volume per bore (ML/y)	Median volume per bore (ML/y)
COMS	2	40	20	20
HUSE	1301	2,774	2.13	2
INDS	29	348	12	12
IRAG	212	5,750	27.12	15
RECN	7	97	13.86	10
STOK	950	2,097.5	2.21	2
WSUP	4	512	128	105
Total	2505	11,618.5	29.3	2

Data: Bureau of Meteorology (Dataset 1), Bioregional Assessment Programme (Dataset 2)
[a]Refer to Table 8 for the code definition

Table 8 Bore purpose code definition in the National Groundwater Information System (NGIS) for the Clarence-Moreton bioregion

Code	Definition
COMS	Water supply for commercial activities i.e. a service business that does not fabricate a product
HUSE	Water supply for household needs e.g. washing, toilet
INDS	Water supply for manufacturing and industry
IRAG	Water supply for irrigated agriculture
RECN	Recreational purposes
STOK	Water supply for livestock
WSUP	Water supply, e.g. town water supply

Data: Bureau of Meteorology (2013)

The estimated water usage by aquifers is described in Table 9 and Figure 7. The Richmond River alluvium and Lamington Volcanics represent the two main groundwater supply aquifers in the model domain with 3474 ML/year and 6501.5 ML/year allocated to 672 and 1325 bores screened in those two aquifers, respectively. Bores screened in the Grafton Formation and the Walloon Coal Measures are allowed to pump 964 ML/year and 514 ML/year, respectively. The sum of the

estimated water usage for the other five hydrogeological units represents only 165 ML/year. Although 1833 of the 2505 bores are screened in the bedrock aquifers, most of them were drilled in the unconfined part of the bedrock aquifers (i.e. non alluvial).

Table 9 Estimated groundwater usage categorised by hydrogeological units in the model domain of the groundwater model for the Clarence-Moreton bioregion

Hydrogeological unit	Number of bores	Total volume (ML/y)
Alluvium	672	3474
Lamington Volcanics	1325	6501.5
Grafton Formation	308	964
Bungawalbin Member	29	60
Kangaroo Creek Sandstone	28	66
Walloon Coal Measures	127	514
Koukandowie Formation	8	14
Gatton Sandstone	2	14
Woogaroo Subgroup	6	11

Data: Bureau of Meteorology (Dataset 1), Bioregional Assessment Programme (Dataset 2)

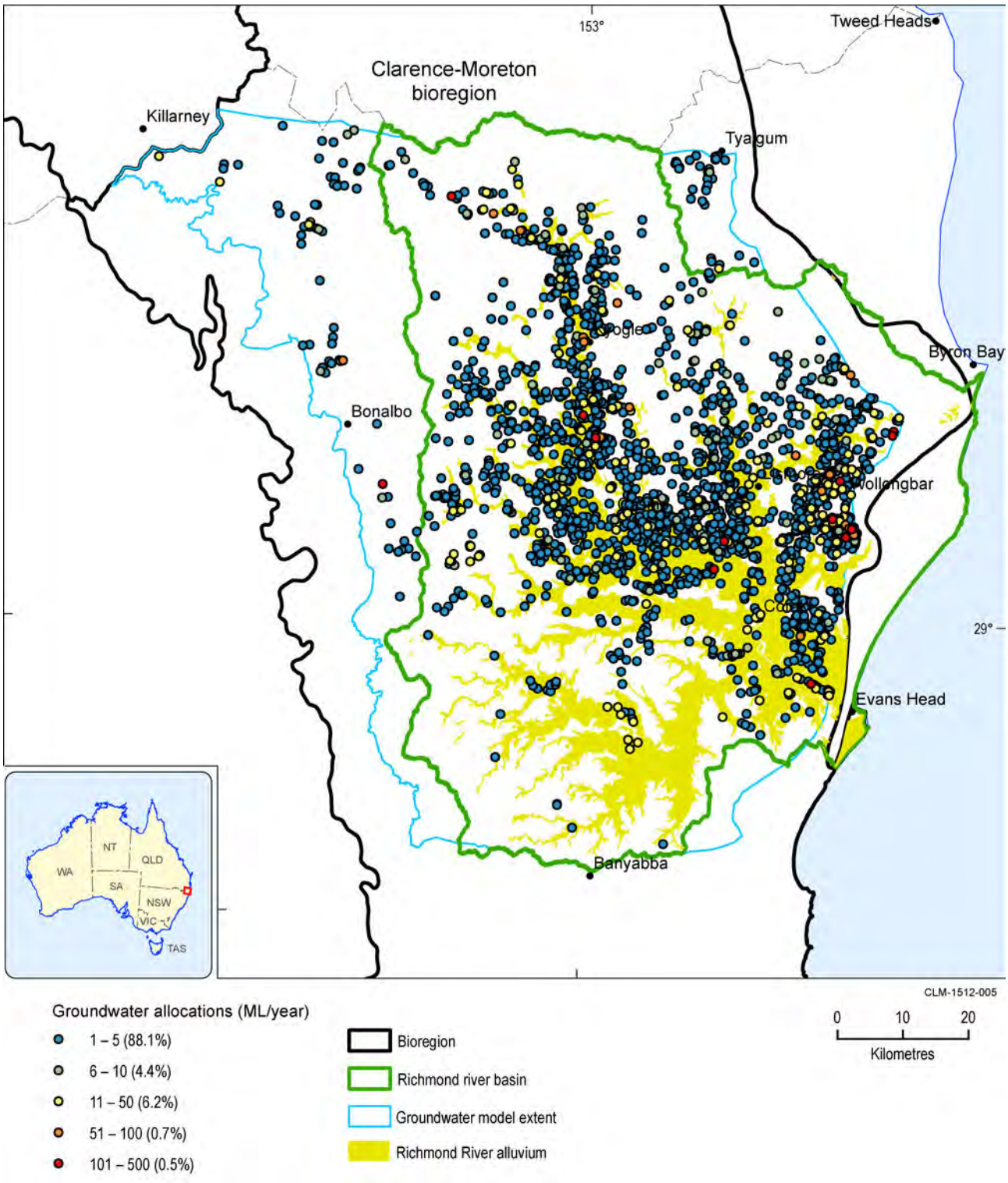

Figure 5 Estimate of groundwater usage per bore within the model domain of the groundwater model for the Clarence-Moreton bioregion. The estimation was based on available allocation data with an assumption that 100% of the allocation will be used

Data: Bureau of Meteorology (Dataset 1), Bioregional Assessment Programme (Dataset 2)

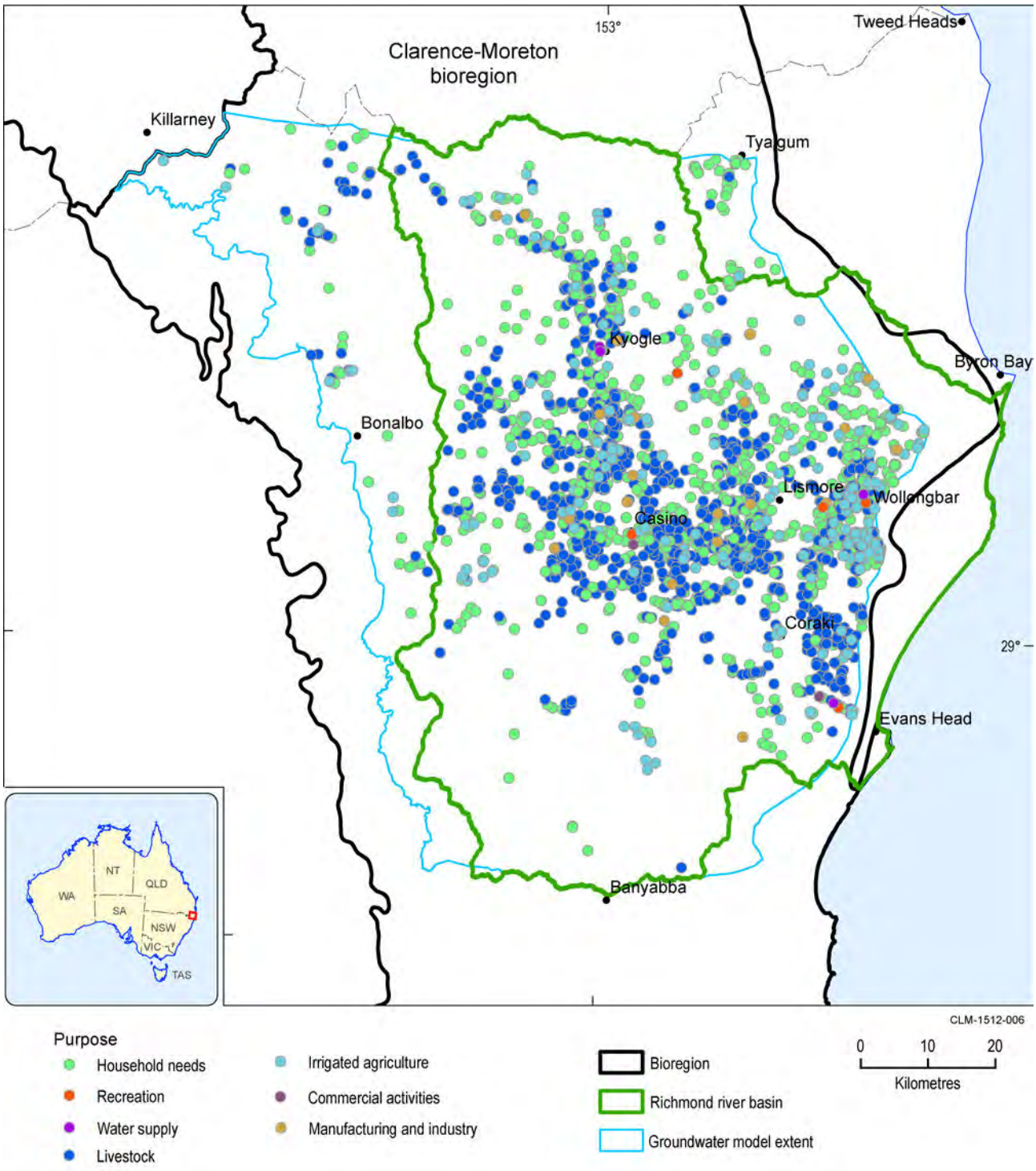

Figure 6 Distribution of bores classified by purpose within the model domain of the groundwater model for the Clarence-Moreton bioregion

Data: Bureau of Meteorology (Dataset 1), Bioregional Assessment Programme (Dataset 2)

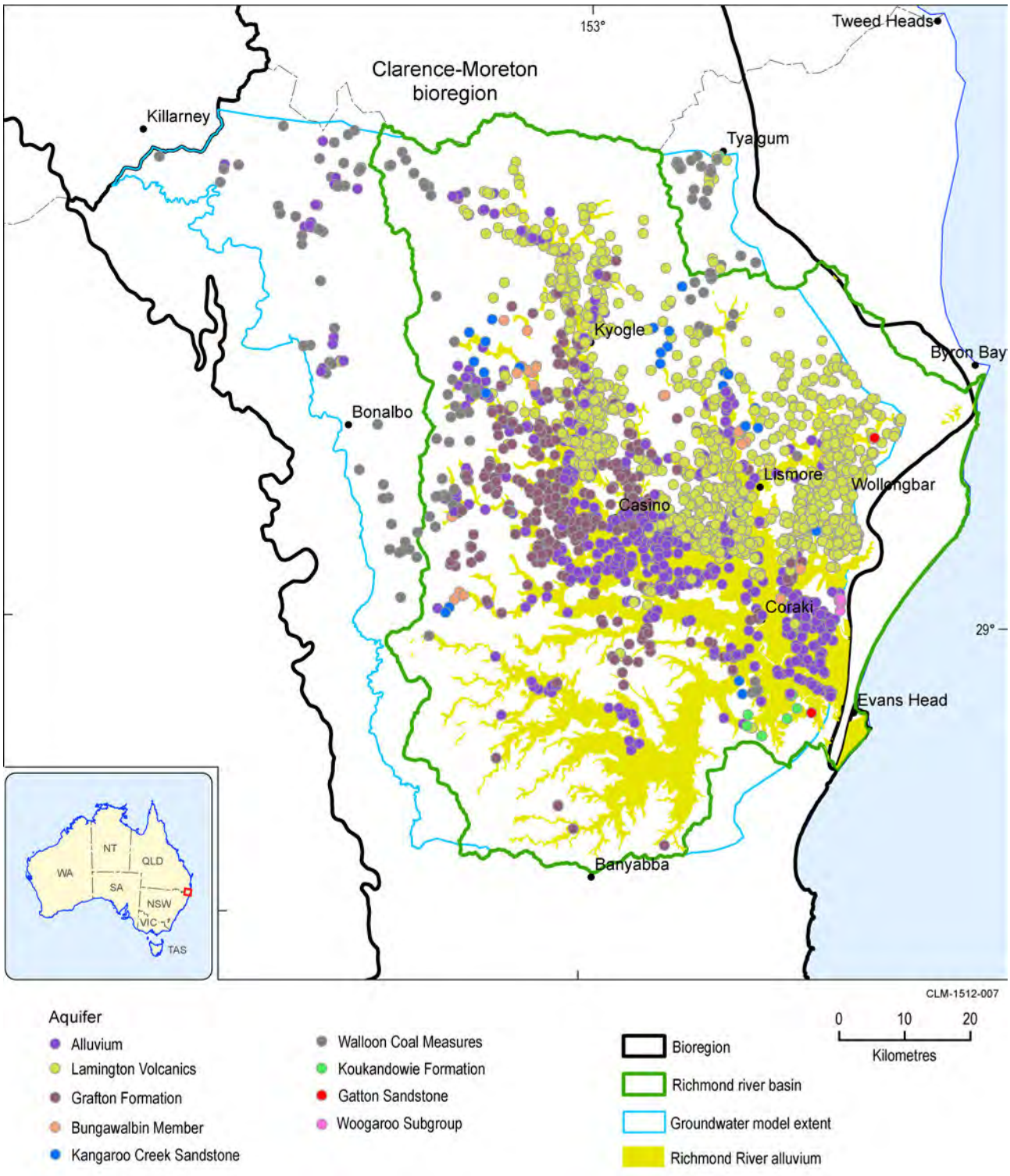

Figure 7 Distribution of bores classified by aquifer within the model domain of the groundwater model for the Clarence-Moreton bioregion

Data: Bureau of Meteorology (Dataset 1), Bioregional Assessment Programme (Dataset 2)

1.5.1.2.2 Water management

In NSW, water sharing plans (WSPs) are developed to preserve surface water and groundwater by balancing the competing demands by different types of water users. They are defined based on surface river basins and groundwater systems. The model domain is covered mainly by the WSP for the Richmond River Area Unregulated, Regulated and Alluvial Water Sources, although it is also

associated with three other WSPs (Figure 8). The public exhibition of the Draft Water Sharing Plan for the Clarence Unregulated and Alluvial Water Sources was being finalised as this report was being drafted (DPI, 2015a). The WSP for the Alstonville Plateau Groundwater Sources overlaps with the WSP for the Richmond River Area Unregulated, Regulated and Alluvial Water Sources, however, it was developed specifically for the Cenozoic basalt aquifer between Lismore and Alstonville. The water sharing plan was originally due in July 2014, but its due date has been extended to July 2015. There has been a proposal to merge this WSP into the North Coast Fractured and Porous Rock Groundwater Sharing Plan to form a uniform WSP for the fractured and porous rock groundwater sources on the North Coast of NSW (DPI, 2015b). More details about these WSPs can be found in NSW Office of Water (2015).

Table 10 provides a breakdown of the number of bores and estimated usage in ML/year as per WSPs. It is shown that 1967 bores (79% of the total) within the model domain are managed under the WSP for the Richmond River Area Unregulated, Regulated and Alluvial Water Sources; 49 Walloon Coal Measures bores, 19 alluvial bores, and 1 basalt bore are located in the Draft Water Sharing Plan for the Clarence Unregulated and Alluvial Water Sources; 434 bores (17% of the total) are screened in the Alstonville basalt that is managed by the WSP of the Alstonville Plateau Groundwater Sources.

Table 10 Estimated groundwater usage categorised by water sharing plan in the model domain of the groundwater model for the Clarence-Moreton bioregion

Hydrogeological unit	Number of bores	Total volume (ML/y)
The Richmond River Area Unregulated, Regulated and Alluvial Water Sources	1967	7877
The Alstonville Plateau Groundwater Sources	434	3212
The Clarence Unregulated and Alluvial Water Sources	69	449
The Tweed River Area Unregulated and Alluvial Water Sources	35	80

Data: Bureau of Meteorology (Dataset 1), Bioregional Assessment Programme (Dataset 2), NSW Office of Water (Dataset 3)

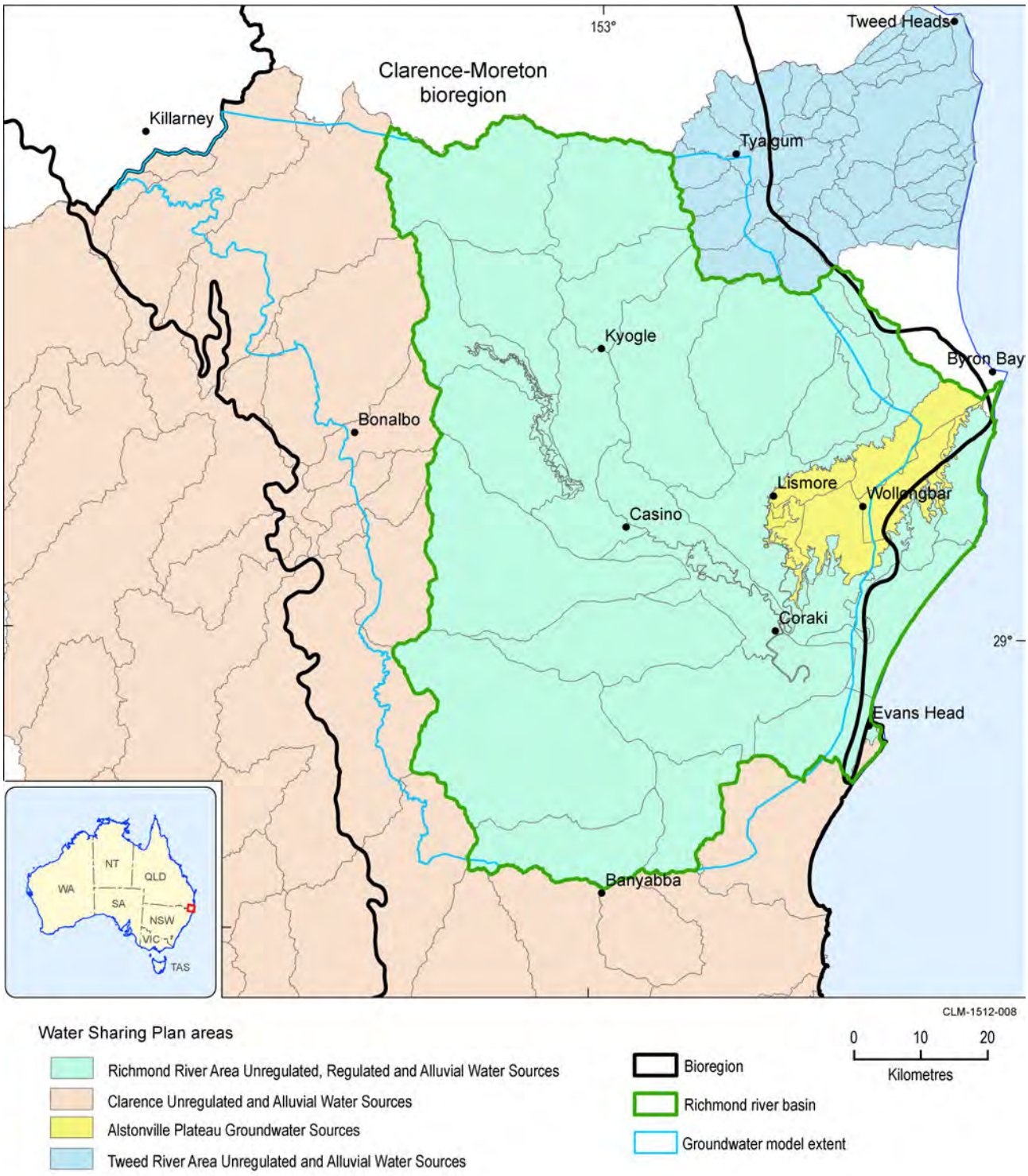

Figure 8 Distribution of water sharing plans (WSP) within the model domain of the groundwater model for the Clarence-Moreton bioregion

Data: Bureau of Meteorology (Dataset 1), Bioregional Assessment Programme (Dataset 2), NSW Office of Water (Dataset 3)

1.5.1.2.3 Gaps

The water account analysis presented in this report was based on allocation data rather than metered actual water usage. This type of analysis generally overestimates the actual groundwater usage. Uncertainties also exist in the allocation data with many bores lacking allocation entries in the NSW state groundwater database. There are inconsistencies between the NGIS and the NSW

state groundwater database regarding the purpose information of the bores. Although great efforts were allotted to assign bores to different aquifers, the accuracy of the assignment cannot be guaranteed either due to the lack of stratigraphy boundary information or due to its inferior quality.

References

Bureau of Meteorology (2013) NGIS Core Data Dictionary Version 2.3. Viewed 20 March 2015, http://www.bom.gov.au/water/groundwater/ngis/documentation.shtml.

DPI (2015a) Draft Water Sharing Plan for the Clarence Unregulated and Alluvial Water Sources. NSW Department of Primary Industries, Office of Water. Viewed 20 March 2015, http://www.water.nsw.gov.au/Water-management/Water-sharing-plans/Plans-on-exhibition/Exhibitions-open/Clarence-Unregulated-and-Alluvial-Water-Sources.

DPI (2015b) Alstonville Plateau Groundwater Sources. NSW Department of Primary Industries, Office of Water. Viewed 20 March 2015, http://www.water.nsw.gov.au/Water-management/Water-sharing-plans/Plans-commenced/Water-source/Alstonville-Plateau-Groundwater-Sources/default.aspx.

Moore C, Cui T, Doherty J, Turnadge C, Pagendam D and Peeters L (2014) Uncertainty analysis, data-worth analysis and hypothesis testing: Assessments to support environmental impact assessments related to cumulative impacts of Coal Seam Gas extraction in the Surat Basin, Queensland. CSIRO, Australia.

NSW Office of Water (2015) Water Sharing Plans. NSW Department of Primary Industries, Office of Water. Viewed 20 March 2015, http://www.water.nsw.gov.au/Water-management/Water-sharing/default.aspx.

Parsons Brinkerhoff (2013) Preliminary numerical groundwater modelling report. Prepared for Metgasco Limited, Document No: 2193251B-WAT-PRE-001 RevA, dated 16 December 2013.

QWC (2012) Underground water impact report for the Surat Cumulative Management Area. Queensland Water Commission, Brisbane, Australia. Viewed 20 August 2015, http://www.dnrm.qld.gov.au/__data/assets/pdf_file/0016/31327/underground-water-impact-report.pdf.

Datasets

Dataset 1 Bureau of Meteorology (2014) NSW Office of Water – National Groundwater Information System. Bioregional Assessment Source Dataset. Viewed 23 March 2014, http://data.bioregionalassessments.gov.au/dataset/7ab9820e-1e43-4600-8875-a0834345fb6d.

Dataset 2 Bioregional Assessment Programme (2014) NSW Office of Water_GW licence extract linked to spatial locations_CLM_v3_13032014. Bioregional Assessment Derived Dataset. Viewed 23 March 2014, http://data.bioregionalassessments.gov.au/dataset/4b0e74ed-2fad-4608-a743-92163e13c30d.

Dataset 3 NSW Office of Water (2013) NSW Office of Water combined geodatabase of regulated rivers and water sharing plan regions. Bioregional Assessment Source Dataset. Viewed 31 July 2013, http://data.bioregionalassessments.gov.au/dataset/24157c41-c42f-4e1f-a791-a1ad18c8215d.

1.5.2 Water quality

Summary

The largest collection of water quality data (groundwater and surface water) for the Richmond river basin is maintained by the New South Wales Government. These data include continuously collected water quality parameters and targeted sampling campaigns. Continuously collected surface water quality data are not widely available for gauging locations in the Richmond river basin and most of the measurements that are available only commenced in 2013. Continuous surface water quality measurements include salinity (represented by electrical conductivity) and water temperature and are collected in the tidal reaches of the system. Changes in continuously measured electrical conductivity is linked to flow conditions in the river basin.

Targeted surface water sampling campaigns have been carried out in the past with databases held by both the NSW Department of Environment and Heritage (Dataset 1), and the New South Wales Office of Water (Dataset 2). A large number of surface water quality parameters have been monitored through the Richmond river basin but the most commonly reported are electrical conductivity, pH and turbidity. Using the Australian and New Zealand Guidelines for Freshwater and Marine Water Quality (ANZECC/ARMCANZ, 2000), most water quality parameters were found to fall within acceptable levels, however, there were times where limits were exceeded for the most commonly reported parameters.

Groundwater quality data are available from the New South Wales Office of Water for more than 500 bores within the Richmond river basin. Parameters that are most commonly measured are salinity (represented by electrical conductivity) and pH, collected over a time span from 1971 to 2007. The freshest groundwater within the Richmond river basin is contained within the Lamington Volcanics. Groundwater salinity within the alluvial aquifers is more variable, ranging from very fresh to saline, depending on the location within the river basin. Only limited water quality measurements exist for the deeper bedrock aquifers within the Richmond river basin; to provide a baseline understanding of groundwater quality within the major aquifers, observations from other areas within the Clarence-Moreton bioregion are also reported in this report.

1.5.2.1 Surface water

This product summarises water quality information in the Richmond river basin. Surface water quality may be directly impacted by runoff from areas altered by coal mines or coal seam gas (CSG) developments (areas cleared of vegetation, service roads, and site processing facilities), discharge of mine or CSG waters and leaking of hydrocarbons. A number of physical and chemical parameters may be altered by potential coal and CSG developments, including turbidity, suspended solids, pH, heavy metals concentration, salinity, and the presence of hydrocarbons. It is worth noting that there is currently a lack of data on the presence of hydrocarbons as a result of coal mining and CSG operation and development in the Clarence-Moreton bioregion.

The National Land and Water Resources Audit provides the only consistent bioregion-wide assessment of water quality (NLWRA, 2001). The National Land and Water Resources Audit provided data on the export of sediment, nutrient and phosphorus for the Richmond river basin and these were summarised in Section 1.1.5 of companion product 1.1 for the Clarence-Moreton bioregion (Rassam et al., 2014). A follow up report for the National Land and Water Resources Audit (NLWRA, 2002a, 2002b) presented broader regional assessments and developed indices to facilitate comparison of basin and river condition. Section 1.1.5 also summarised some targeted monitoring campaigns reported in the scientific literature for the Richmond river basin. The Richmond River County Council monitors electrical conductivity, pH, dissolved oxygen, temperature and turbidity at four locations within the estuary.

The NSW Office of Water conducts two types of monitoring: continuous monitoring in river gauging stations and targeted monitoring campaigns for a specific duration and purpose (NSW Office of Water, 2014). The remainder of this section will include a description of these two types of water quality monitoring products.

1.5.2.1.1 Water quality in the Richmond river basin

Continuous monitoring

Of the active streamflow gauging sites in the Richmond river basin there are only two with continuous salinity and water temperature measurement datasets that are over one year in duration. These two gauges are Bungawalbyn (203450) and Richmond at Oakland Road (203470) and both are stations that only report river level as they are within the tidal zone of the basin. Monitoring of water quality parameters (salinity and temperature) at these two locations only commenced in early 2013. Data on the same parameters is also available for the Richmond River at Coraki (203403) but only since early 2014.

The data for Bungawalbyn (203450) and Richmond at Oakland Road (203470) can be seen in Figure 9 and Figure 10 for the 2013 to 2014 water year. For both sites, the monitoring locations exhibit seasonal water temperature characteristics which are likely to reflect variations in incoming solar radiation. On the other hand the salinity (expressed as electrical conductivity) in both systems seems to exhibit an increasing trend through the dry season, possibly in relation to decreases in baseflow and larger tidal influence, and then an abrupt decrease following a large flow event in March 2014. The salinity at Bungawalbyn ranges from 200 µS/cm after a large flow has been through the system (indicated by a big change in level) to nearly 1300 µS/cm before the next flushing event. A similar trend is shown at the Richmond River at Oakland Road although at this site maximum salinity is less than 800 µS/cm. These systems experience quite large ranges of salinity which may reflect variations in baseflow and tidal influences.

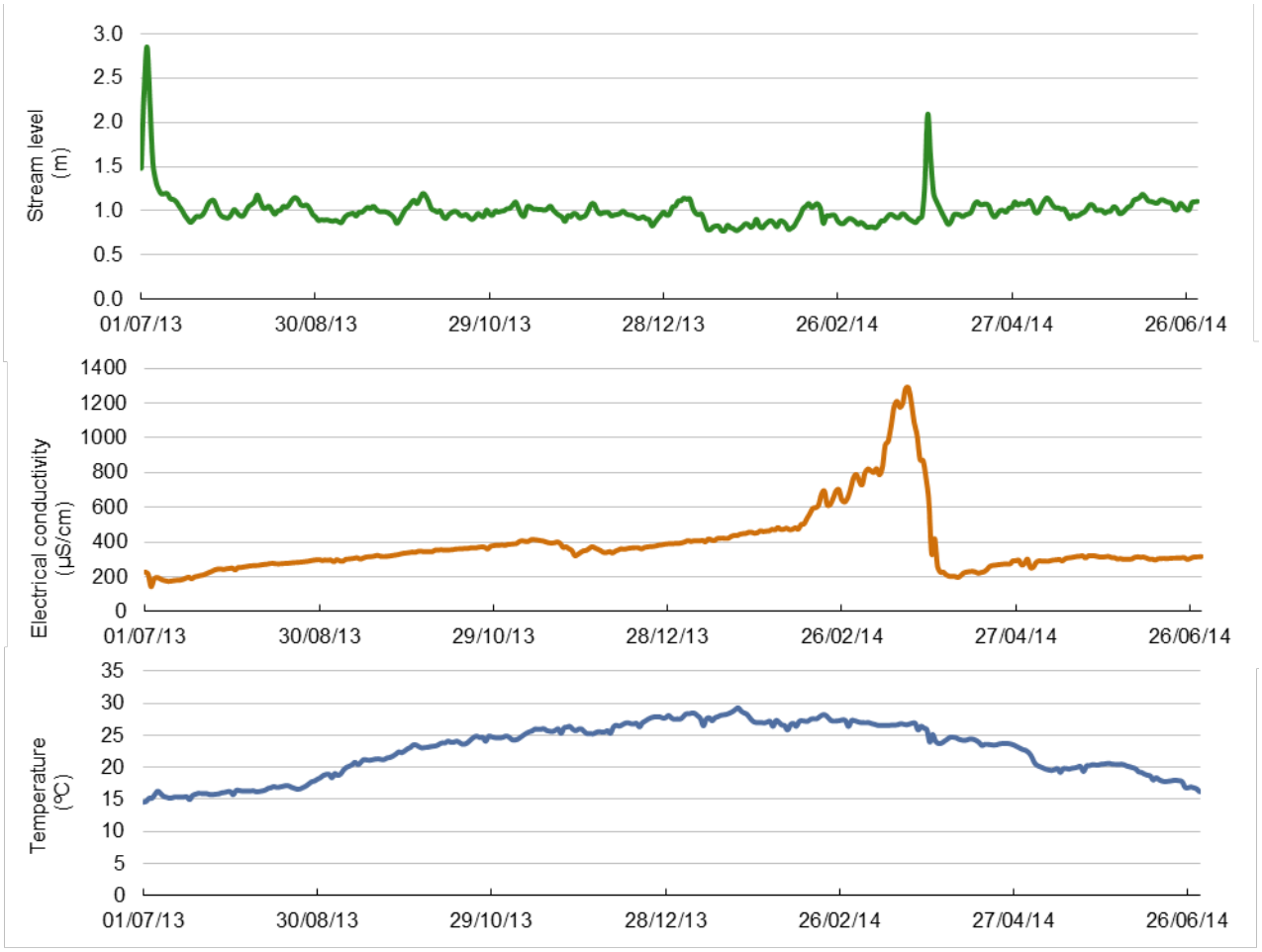

Figure 9 Stream level (top), electrical conductivity (middle) and water temperature (bottom) at gauge 203450 Bungawalbyn for the 2013 to 2014 water year for the Clarence-Moreton bioregion

Data: NSW Office of Water (Dataset 3)

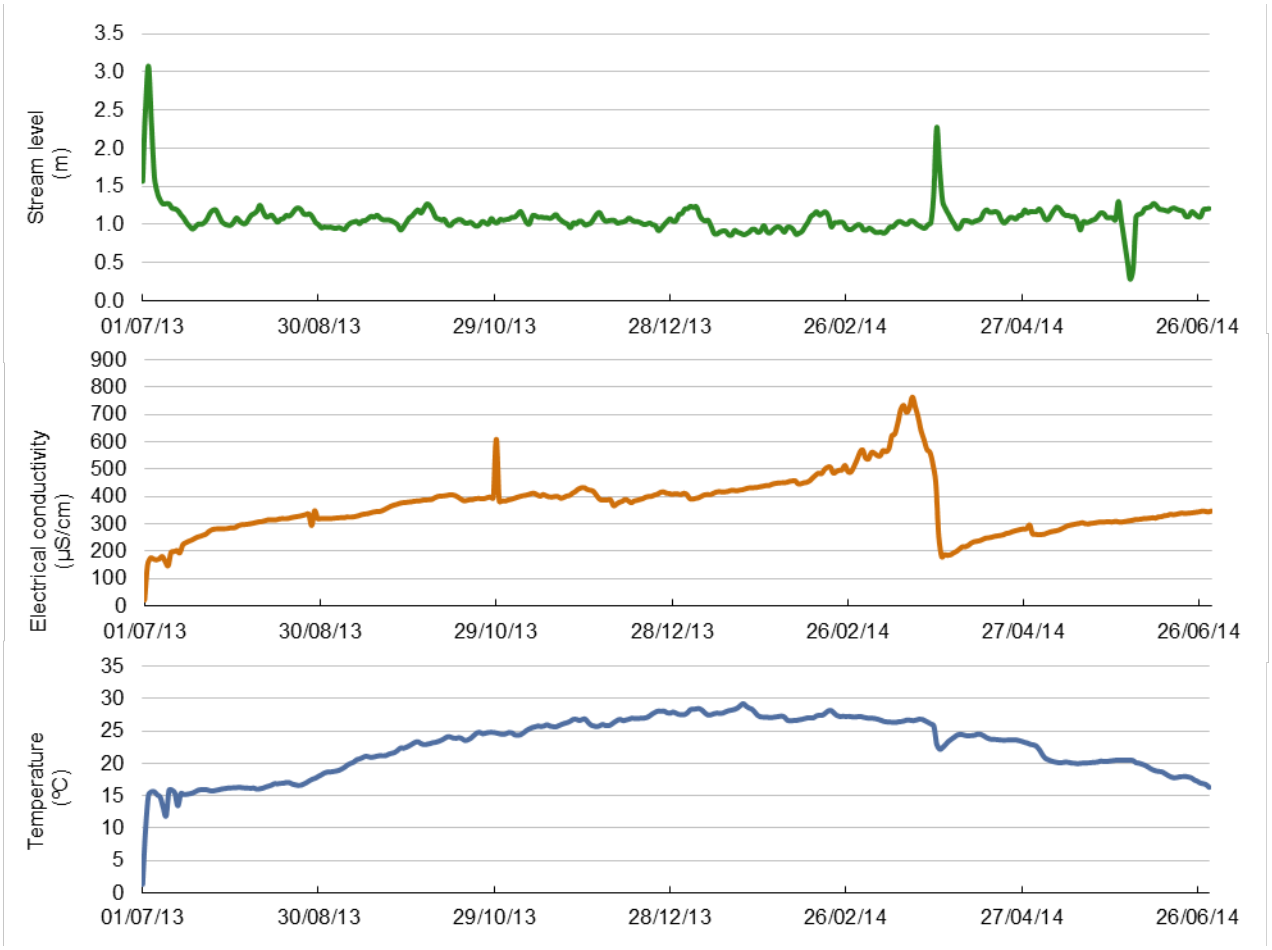

Figure 10 Stream level (top), electrical conductivity (middle) and water temperature (bottom) at gauge 203470 Richmond at Oakland Road for the 2013 to 2014 water year for the Clarence-Moreton bioregion

Data: NSW Office of Water (Dataset 3)

Targeted monitoring

A range of other water sampling campaigns have also been undertaken to collect data for various reports and projects; some of these are summarised below. There are two main datasets to draw upon here: 1) the NSW Department of Environment and Heritage Historic Water Quality Data (Dataset 1), and 2) NSW Office of Water Data (Dataset 2).

State of the catchments – Northern Rivers Region (Dataset 1)

In 2010, the NSW Government undertook a *State of the catchments* report for the Northern Rivers region, which includes the Richmond river basin (DECCW, 2010). In this report trends in water temperature, electrical conductivity and turbidity were presented for Richmond River at Kyogle, Wilson River at Eltham and Richmond River at Casino. This report acknowledges that there is low confidence in electrical conductivity and temperature data due to data gaps and errors and medium confidence in turbidity which was not measured past 2000.

Water Quality of Tweed, Brunswick, Richmond and Clarence rivers (Dataset 1)

This is an extensive dataset of more than 500 samples collected from 48 locations between 15 May 1994 and 12 April 1995. Water quality parameters available include turbidity, total phosphorus, total nitrogen, pH and temperature.

Other data (Dataset 1)

There are also two very small datasets which form part of the Coastal State Recreation Areas dataset (samples in 2006 and 2008) and the Monitoring River Health Initiative (samples collected between 1994 and 1999) (Turak et al., 2000). These both include measurements of electrical conductivity, turbidity, pH and temperature. The Coastal State Recreation Areas dataset has measurements for four locations in the Richmond river basin, while the Monitoring River Health Initiative dataset includes targeted observation from 31 sites with data collected six monthly.

New South Wales Office of Water dataset (Dataset 2)

The NSW Office of Water has a very large database of water quality data collected over many years and includes data collected at locations in the Richmond river basin. The types of water quality parameters collected in the Richmond river basin are extremely diverse (e.g. nutrients, temperature, and aquatic biota) but the three most commonly reported parameters are electrical conductivity (>2900 readings), pH (>2200 readings) and turbidity (>1890 readings). The locations where electrical conductivity was measured, the number of samples collected and their mean, minimum and maximum values are shown in Table 11. Matching analysis for pH and turbidity readings is shown in Table 12 and Table 13, respectively.

The Australian and New Zealand Guidelines for Freshwater and Marine Water Quality (ANZECC/ARMCANZ, 2000) sets acceptable levels for electrical conductivity in the upland and lowland rivers of NSW catchments at between 30 and 350 µS/cm, and 125 and 2200 µS/cm, respectively. Mean values for the Richmond river basin fall within this range however maximum values exceed these ranges at times. Higher electrical conductivity values in the lowland areas are likely to reflect tidal influences in the lower reaches of the Richmond River.

Table 11 Sampling locations, gauge number, number of samples collected and mean, maximum and minimum electrical conductivity measurements for the Clarence-Moreton bioregion

Station name	Station number	Number of samples	Mean (µS/cm)	Maximum (µS/cm)	Minimum (µS/cm)
Coopers Creek at Repentance	203002	113	76	108	30
Richmond River at Casino	203004	212	314	625	1
Richmond River at Wiangaree	203005	70	240	408	116
Lynchs Creek at Wiangaree	203006	65	155	545	50
Terania Creek at Blakes	203007	49	132	839	32
Back Creek at Bentley	203009	96	475	700	105
Leycester Creek at Rocky Valley	203010	112	416	1080	120
Byron Creek at Binnaburra	203012	108	110	345	58

Station name	Station number	Number of samples	Mean (µS/cm)	Maximum (µS/cm)	Minimum (µS/cm)
Wilsons River at Federal	203013	94	93	267	57
Wilsons River at Eltham	203014	262	103	330	1
Goolmangar Coffee Camp	203015	81	235	440	73
Upper Horseshoe Creek	203017	70	164	265	83
Eden Creek at Upper Eden	203018	67	233	320	130
Eden Creek at The Ford	203019	3	224	300	130
Terania Creek at Keerong	203022	82	125	850	36
Ironpot Creek at Toonumbar	203023	191	197	412	16
Coopers Creek at Ewing Bridge	203024	88	94	343	41
Maron Creek at Alstonville	203025	53	90	152	60
Richmong River at Grevillia	203026	47	860	1500	348
Findon Creek at Terrace Creek	203027	63	287	385	170
Fawcetts Plain	203028	85	261	452	90
Myrtle Creek at Rappville	203030	78	300	865	121
Eden Creek at Ettrick	203032	90	384	535	154
Ironpot Creek at Toonumbar VG	203033	7	167	193	137
Eden Creek at Doubtful	203034	92	393	1230	243
Ironpot Creek at Ettrick	203035	107	297	2010	83
Giggergunyah Range River	203036	19	67	81	39
Duck Creek at Alstonville	203037	97	75	249	43
Peraces Creek at Booyong	203038	100	100	135	62
Maguires Creek at Teven	203039	88	105	599	54
Gum Creek at Rous Mill	203040	23	70	150	54
Shannon Brook at Yorklea	203041	96	993	2970	120
Battens Bight at Camir	203044	23	130	286	77
Myall Creek at Gibberagee	203045	27	297	1000	73
Bennys Creek at Eureka	203046	1	96	96	96
Richmond River at Kyogle	203900	67	267	375	143
Goolmangar Creek at Nimbin	203901	7	326	1000	132

Data: NSW Office of Water (Dataset 2)

The Australian and New Zealand Guidelines for Freshwater and Marine Water Quality (ANZECC/ARMCANZ, 2000) sets acceptable pH in the upland and lowland rivers of NSW catchments at between 6.5 and 7, and 6.5 and 8, respectively. Mean values are at times outside of these values and maximum and minimum values often sit outside of the guideline values.

Table 12 Sampling locations, gauge number, number of samples collected and mean, maximum and minimum pH measurements for the Clarence-Moreton bioregion

Station name	Station number	Number of samples	Mean (pH)	Maximum (pH)	Minimum (pH)
Coopers Creek at Repentance	203002	82	7.1	8.6	6.6
Richmond River at Casino	203004	182	7.8	9.2	6.3
Richmond River at Wiangaree	203005	71	7.6	8.3	7.2
Lynchs Creek at Wiangaree	203006	44	7.4	7.8	7.1
Terania Creek at Blakes	203007	47	7.1	7.6	6.7
Back Creek at Bentley	203009	62	7.6	8.1	7.2
Leycester Creek at Rocky Valley	203010	76	7.4	8.1	7.0
Byron Creek at Binnaburra	203012	83	7.1	7.6	6.2
Wilsons River at Federal	203013	62	7.1	8.1	6.6
Wilsons River at Eltham	203014	116	6.9	7.6	5.9
Goolmangar Coffee Camp	203015	51	7.2	7.6	6.9
Upper Horseshoe Creek	203017	45	7.5	8.0	7.0
Eden Creek at Upper Eden	203018	46	7.5	8.0	7.2
Terania Creek at Keerong	203022	46	7.1	7.6	6.8
Ironpot Creek at Toonumbar	203023	177	7.4	8.4	6.0
Coopers Creek at Ewing Bridge	203024	53	7.0	7.4	6.3
Maron Creek at Alstonville	203025	53	6.7	7.5	6.2
Richmong River at Grevillia	203026	47	7.8	8.4	7.4
Findon Creek at Terrace Creek	203027	43	7.7	8.6	6.9
Fawcetts Plain	203028	53	7.4	7.9	7.0
Myrtle Creek at Rappville	203030	78	6.9	7.7	6.3
Eden Creek at Ettrick	203032	62	7.6	8.4	7.3
Ironpot Creek at Toonumbar VG	203033	1	7.2	7.2	7.2
Eden Creek at Doubtful	203034	66	7.6	8.2	7.3
Ironpot Creek at Ettrick	203035	81	7.5	8.3	7.1
Giggergunyah Range River	203036	18	6.8	7.1	6.5
Duck Creek at Alstonville	203037	75	6.6	7.5	6.0
Peraces Creek at Booyong	203038	78	7.0	7.3	6.0
Maguires Creek at Teven	203039	89	7.0	8.1	6.2
Gum Creek at Rous Mill	203040	2	7.4	7.6	7.2
Shannon Brook at Yorklea	203041	96	7.6	8.8	6.9
Battens Bight at Camir	203044	24	6.6	7.3	6.0

Station name	Station number	Number of samples	Mean (pH)	Maximum (pH)	Minimum (pH)
Myall Creek at Gibberagee	203045	24	6.7	7.5	6.3
Bennys Creek at Eureka	203046	1	7.1	7.1	7.1
Richmond River at Kyogle	203900	64	7.7	8.6	7.3
Goolmangar Creek at Nimbin	203901	6	7.4	7.8	6.5

Data: NSW Office of Water (Dataset 2)

The Australian and New Zealand Guidelines for Freshwater and Marine Water Quality (ANZECC/ARMCANZ, 2000) sets acceptable levels for turbidity in the upland and lowland rivers of NSW catchments at between 2 and 25 NTU (Nephelometric Turbidity Unit), and 6 and 50 NTU, respectively. Mean values for the Richmond river basin fall within these ranges however maximum values exceed these ranges at times.

Table 13 Sampling locations, gauge number, number of samples collected and mean, maximum and minimum turbidity measurements for the Clarence-Moreton bioregion

Station name	Station number	Number of samples	Mean (NTU)	Maximum (NTU)	Minimum (NTU)
Coopers Creek at Repentance	203002	68	3.1	22.0	0.7
Richmond River at Casino	203004	196	12.0	232.0	0.1
Richmond River at Wiangaree	203005	57	2.5	18.0	0.5
Lynchs Creek at Wiangaree	203006	34	2.2	18.0	0.4
Terania Creek at Blakes	203007	35	4.5	50.0	0.9
Back Creek at Bentley	203009	41	4.7	54.0	0.4
Leycester Creek at Rocky Valley	203010	62	8.6	150.0	0.6
Byron Creek at Binnaburra	203012	70	3.0	15.0	0.6
Wilsons River at Federal	203013	51	3.1	16.0	0.8
Wilsons River at Eltham	203014	217	5.5	45.0	0.6
Goolmangar Coffee Camp	203015	39	3.4	15.0	0.6
Upper Horseshoe Creek	203017	33	3.8	27.0	0.4
Eden Creek at Upper Eden	203018	36	3.9	25.0	0.4
Terania Creek at Keerong	203022	36	3.6	20.0	0.8
Ironpot Creek at Toonumbar	203023	82	6.2	70.0	0.5
Coopers Creek at Ewing Bridge	203024	43	3.8	24.0	0.8
Maron Creek at Alstonville	203025	42	3.4	15.0	0.8
Richmong River at Grevillia	203026	37	5.5	52.0	0.4
Findon Creek at Terrace Creek	203027	33	3.6	23.0	0.4
Fawcetts Plain	203028	43	5.0	45.0	0.4
Myrtle Creek at Rappville	203030	65	7.4	44.0	0.8

Station name	Station number	Number of samples	Mean (NTU)	Maximum (NTU)	Minimum (NTU)
Eden Creek at Ettrick	203032	50	3.1	25.0	0.3
Ironpot Creek at Toonumbar VG	203033	1	2.1	2.1	2.1
Eden Creek at Doubtful	203034	54	6.1	60.0	0.6
Ironpot Creek at Ettrick	203035	68	5.9	84.0	0.6
Giggergunyah Range River	203036	10	2.1	7.9	0.7
Duck Creek at Alstonville	203037	61	3.4	67.5	0.6
Peraces Creek at Booyong	203038	66	2.6	19.0	0.7
Maguires Creek at Teven	203039	74	2.6	14.0	0.7
Gum Creek at Rous Mill	203040	1	8.0	8.0	8.0
Shannon Brook at Yorklea	203041	80	15.2	434.0	0.7
Battens Bight at Camir	203044	19	24.4	67.0	1.6
Myall Creek at Gibberagee	203045	24	23.1	305.0	1.8
Bennys Creek at Eureka	203046	1	7.1	7.1	7.1
Richmond River at Kyogle	203900	57	5.5	170.0	0.4
Goolmangar Creek at Nimbin	203901	6	5.3	11.0	3.0

Data: NSW Office of Water (Dataset 2)

1.5.2.1.2 Gaps

There is a lack of data on the presence of hydrocarbons as a result of coal mining and CSG operation and development. These data are important for reasons outlined in Section 1.5.2.1.

References

ANZECC/ARMCANZ (2000) National Water Quality Management Strategy: Paper No 4 - Australian and New Zealand guidelines for fresh and marine water quality: Volume 1 – The Guidelines. Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand, Commonwealth of Australia, Australia.

DECCW (2010) State of the Catchments 2010. Riverine Ecosystems. Northern Rivers Region. Department of Environment, Climate Change and Water NSW, Report DECCW 2010/422.

NLWRA (2001) National Land and Water Resources Audit. Commonwealth of Australia, Canberra, ACT.

NLWRA (2002a) Australian catchment, river and estuary assessment 2002: volume 1, National Land and Water Resources Audit, Canberra, ACT.

NLWRA (2002b) Australian catchment, river and estuary assessment 2002: volume 2, National Land and Water Resources Audit, Canberra, ACT.

NSW Office of Water (2014) Two types of water quality data. NSW Office of Water. Viewed 10 December 2014, http://waterinfo.nsw.gov.au/wq/intro.shtml.

Rassam D, Raiber M, McJannet D, Janardhanan S, Murray J, Gilfedder M, Cui T, Matveev V, Doody T, Hodgen M and Ahmad ME (2014) Context statement for the Clarence-Moreton bioregion. Product 1.1 from the Clarence-Moreton Bioregional Assessment. Department of the Environment, Bureau of Meteorology, CSIRO and Geoscience Australia, Australia. Viewed 20 July 2015, http://data.bioregionalassessments.gov.au/product/CLM/CLM/1.1.

Turak E, Hose G and Waddell N (2000) Australia-wide Assessment of River Health: New South Wales Bioassessment Report (NSW Final Report), Monitoring River Health Initiative Technical Report no 2a, Commonwealth of Australia and NSW Environment Protection Authority, Canberra and Sydney.

Datasets

Dataset 1 NSW Department of Environment and Heritage (2009) NSW Department of Environment and Heritage Historic Water Quality Data. Bioregional Assessment Source Dataset. Viewed 23 March 2015, http://data.bioregionalassessments.gov.au/dataset/4c5f7318-2567-4614-aa35-46aa0eb045f2.

Dataset 2 NSW Office of Water (2013) NSW Office of Water Surface Water Quality Extract 28_nov_2013. Bioregional Assessment Source Dataset. Viewed 23 March 2015, http://data.bioregionalassessments.gov.au/dataset/21234479-eabe-46f9-8af5-9f30847a18ba.

Dataset 3 NSW Office of Water (2015) Richmond stream gauge data. Bioregional Assessment Source Dataset. Viewed 23 March 2015, http://data.bioregionalassessments.gov.au/dataset/03f59f6b-8d06-4513-b662-db7c4c2d2909.

1.5.2.2 Groundwater

This section provides information on groundwater salinity (represented by electrical conductivity or EC) and pH. In addition, it provides basic information on selected trace elements to highlight limitations of the available data, as only a limited number of groundwater samples have been analysed for most trace elements in the Richmond river basin. Further statistical analysis and interpretation conducted on the major ion chemistry of groundwater within the Clarence-Moreton bioregion will be provided in companion product 2.1-2.2 of the bioregional assessment (Raiber et al., 2015), and additional information on water quality and the characteristics of major aquifers are presented in companion product 1.1 for the Clarence-Moreton bioregion (Rassam et al., 2014).

Groundwater quality and chemistry data were compiled from the NSW groundwater bore database (Bureau of Meteorology, Dataset 1). In this database, 501 bores within the Richmond River groundwater model boundary have records for electrical conductivity, and 502 records exist for pH, whereas only a fraction of groundwater bores have trace element chemistry records. Sampling dates range from 1971 to 2007. The time span of four decades over which samples have been collected has implications on data quality, this is attributed to significant changes to sampling protocols, database procedures and most importantly advances in analytical accuracy and precision (e.g. a significant reduction in methods' detection limits has occurred).

There are 3934 bores from the National Groundwater Information System (NGIS) (Bureau of Meteorology, Dataset 1) located within the Richmond River groundwater model domain, 3096 of which have construction information (e.g. screened interval depth) that is required to assign bores to aquifers. However, the majority of groundwater bores contained in the Bureau of Meteorology dataset for the Richmond river basin do not have any stratigraphic records. Without the assignment of the screened interval to a discrete stratigraphic unit, it would be impossible to report on the groundwater quality characteristics of different aquifers. Through data quality checks and interpretations of lithological logs, which are available for most bores, followed by integration of the lithological logs into a preliminary three-dimensional geological model for further checks in the spatial context, it has been possible to generate stratigraphic logs for most groundwater bores. This then allowed assignment of most bores to individual aquifers. The procedure is described in detail in companion product 2.1-2.2 of the Clarence-Moreton Bioregional Assessment (Raiber et al., 2015). Results for EC and pH were only reported for bores where the hydrostratigraphic unit at the screened interval was determined with a high degree of confidence; bores screened across multiple aquifers were not considered.

To assess the potential hazards associated with using groundwater in the Richmond river basin, groundwater chemistry data were compared to national guidelines for water quality in which a number of possible water uses were considered. Water uses considered were: human drinking water, stock drinking water and water for long-term irrigation (defined as up to 100 years). For the assessment of potential adverse impacts associated with using groundwater in the Richmond river basin, groundwater quality parameters were compared to water quality national guidelines provided by the National Health and Medical Research Council (NHMRC and NRMMC, 2011) and the Australian and New Zealand Environment and Conservation Council (ANZECC/ARMCANZ, 2000).

1.5.2.2.1 Electrical conductivity

Electrical conductivity values that represent salinity for the Richmond river basin are presented in Table 14.

Values higher than the EC of seawater (approximately 50,000 µS/cm) were not considered in the assessment. It is possible in coastal catchments that seawater or estuarine water leaks into shallow aquifers. In the Richmond river basin, estuaries and tidal rivers extend far inland (up to Casino), and it is therefore possible that elevated salinities are related to leakage from estuaries or tidal rivers. However, this would still only explain EC's less than that of seawater. Areas where elevated groundwater salinities are observed are located too far from the coast to be explained by seawater intrusion. In areas in Australia where hypersaline salt lakes are present, these can leak into underlying aquifers. However, as there are no hypersaline salt lakes within the Richmond river basin, values higher than seawater are considered incorrect, most probably resulting from either erroneous field measurements and/or database entries. Consequently, 57 measurements ranging from 70,000 to 4,850,000 µS/cm were excluded from calculations of the minimum, maximum and median values presented in Table 14. As only limited water quality records are available for most sedimentary bedrock formations in the Richmond river basin, bioregion-wide range of values (including the Queensland part of the Clarence-Moreton bioregion) are reported in Table 14 to give an indication of the possible range of values for different sedimentary bedrock aquifers, assuming basin-wide similar controls of water quality.

In total, 959 values were compared to Australian Drinking Water Guidelines (ADWG) trigger values for human consumption (NHMRC and NRMMC, 2011) and the National Water Quality Management Strategy (NWQMS) for stock and irrigation water (ANZECC/ARMCANZ, 2000). As a full comprehensive analysis was not conducted for many sampling sites, EC is reported here in favour of total dissolved solids (TDS) concentration similar to other bioregions (e.g. Namoi subregion). The trigger values used for EC are given in Table 14 and are derived from the TDS concentrations in the guidelines, using an approximate conversion factor of 0.64, as recommended in the guidelines and as conducted in other bioregions (e.g. Namoi subregion). The range of EC values in the data is shown in Table 14 together with the proportion of samples in exceedance of the different guidelines.

Insufficient EC data exist for most aquifers, and thus, no spatial interpolation was conducted. Instead, maps showing EC ranges were generated for key aquifers within the Richmond river basin groundwater model domain. For less than 3% of the groundwater bores 10 or more EC measurements exist, and for more than 70% of the groundwater bores only one EC measurement is recorded in the database.

Richmond River alluvium

The EC of alluvial groundwater quality samples within the Richmond river basin ranges from 40 to 48,500 µS/cm, with a median of 885 µS/cm (based on 383 samples) (Table 14 and Figure 11). Approximately 35% of the samples collected from alluvial aquifers exceed the ADWG trigger of 1500 µS/cm, and approximately 10% and 9% exceed the ANZECC (2000) trigger for irrigation and stock water, respectively. The ECs in the headwaters where the alluvial aquifers overlie the Lamington Volcanics and near the coast within the Richmond river basin are generally low. These

low salinities indicate that recharge rates are generally high here. The low salinity of alluvial groundwaters within the extent of the Lamington Volcanics (Figure 11 and Figure 12) also confirms that there is a close hydraulic connection between the Richmond River alluvium and the underlying basalt in the headwaters, where the alluvium primarily consist of coarser sediments such as boulders, gravel and sand. In contrast, higher EC were reported for the central part of the Richmond river basin near Casino (Figure 11). Recharge rates here are likely to be lower due to presence of thick low permeability floodplain sediments at the top of the alluvium, which limit the downwards percolation of water and result in higher rates of evapotranspiration prior to recharge.

Basalt (Lamington Volcanics)

The EC of basalt groundwater samples within the Richmond river basin ranges from 50 to 9250 µS/cm, with a median of 499 µS/cm (based on 249 samples) (Table 14) (Figure 12). Only 13.7% of the samples collected from the basalts exceed the ADWG trigger of 1500 µS/cm, whereas 2.8% and 2.4% exceed the ANZECC/ARMCANZ (2000) trigger for irrigation and stock water, respectively. This suggests that the basalts of the Lamington Volcanics contain the freshest groundwater within the Richmond river basin, and highlights the significance of the Lamington Volcanics as a major recharge area within the Clarence-Moreton bioregion. The role of the Lamington Volcanics as a source of high baseflow volumes was also discussed by Brodie et al. (2007) and in the companion product 1.1 for the Clarence-Moreton bioregion (Rassam et al., 2014).

Grafton Formation undifferentiated

The EC of groundwater quality collected from the Grafton Formation (Piora and Rappville Members undifferentiated) within the Richmond river basin ranges from 80 to 10,100 µS/cm, with a median of 1250 µS/cm (based on 60 samples). Approximately 47% of all samples collected from the Grafton Formation exceed the ADWG trigger of 1500 µS/cm, whereas 3.3% of samples exceed the ANZECC/ARMCANZ (2000) trigger for irrigation.

Orara Formation undifferentiated

No groundwater quality samples from the NSW groundwater database were assigned to the Orara Formation.

Walloon Coal Measures

Within the Richmond river basin, the EC of Walloon Coal Measures groundwater quality samples ranges from 400 to 4460 µS/cm, with a median of 1030 µS/cm (based on 16 samples). Of the samples, 25% exceed the ADWG trigger of 1500 µS/cm, whereas no samples exceed the ANZECC/ARMCANZ (2000) triggers for irrigation or stock water.

Within the entire Clarence-Moreton bioregion, the EC of the Walloon Coal Measures ranges from 86 to 26,500 µS/cm, with a median of 4095 µS/cm based on 92 samples. Approximately 75% of all Walloon Coal Measures groundwater quality samples within the Clarence-Moreton bioregion exceed the ADWG trigger of 1500 µS/cm, and a considerable proportion exceeds the ANZECC/ARMCANZ (2000) triggers for irrigation (approximately 25%) and stock water (approximately 7.6%). The considerable difference to the Walloon Coal Measures groundwater

quality within the Richmond river basin probably suggests that the limited number of samples within the Richmond river basin does not provide a representative overview on the EC distribution or that the Walloon Coal Measures samples follow a different evolutionary pathway in the Richmond river basin.

Koukandowie Formation

No EC measurements exist within the Richmond river basin groundwater model boundary for bores screening the Koukandowie Formation. However, bioregion-wide, the EC of bores screening the Koukandowie Formation ranges from 765 to 20,000 µS/cm (median 4750 µS/cm based on 21 samples). Approximately 14.3% of all Koukandowie Formation groundwater quality samples within the Clarence-Moreton bioregion exceed the ADWG trigger of 1500 µS/cm, and a considerable proportion exceeds the ANZECC/ARMCANZ (2000) triggers for irrigation (approximately 24%) and stock water (approximately 5%).

Gatton Sandstone

No EC measurements exist within the Richmond river basin groundwater model boundary for bores screening the Gatton Sandstone. However, bioregion-wide, the EC of 218 groundwater quality samples collected from bores screening the Gatton Sandstone ranges from 92 to 39,000 µS/cm with a median of 5000 µS/cm. Most Gatton Sandstone groundwater samples (approximately 91%; Table 14) within the Clarence-Moreton bioregion exceed the ADWG trigger of 1500 µS/cm, and a considerable proportion exceeds the ANZECC/ARMCANZ (2000) triggers for irrigation (approximately 30%) and stock water (approximately 3%). This indicates that the Gatton Sandstone contains the most saline groundwater of all sedimentary bedrock formations within the Clarence-Moreton bioregion.

Woogaroo Subgroup

No EC measurements exist within the Richmond river basin groundwater model boundary for bores screening the Woogaroo Subgroup. However, throughout the Clarence-Moreton bioregion, the EC of 237 groundwater quality samples collected from bores screened within the Woogaroo Subgroup ranges from 65 to 20,000 µS/cm, with a median of 870 µS/cm (Table 14). Most samples (68.3%) have EC values below the ADWG trigger values, and only very few samples exceed the ANZECC/ARMCANZ (2000) triggers for irrigation and stock water, respectively. This indicates that the Woogaroo Subgroup contains the freshest groundwater of all sedimentary bedrock formations within the Clarence-Moreton bioregion.

Table 14 Electrical conductivity (EC) in Richmond river basin groundwater model domain compared to water guidelines

	Number of analyses	Minimum value (µS/cm)	Maximum value (µS/cm)	Median value (µS/cm)	ADWG[a] trigger (µS/cm)	Fraction in exceedance of guidelines (%)	Irrigation trigger[b] (µS/cm)	Fraction in exceedance of guidelines (%)	Stock trigger[c] (µS/cm)	Fraction in exceedance of guidelines (%)
All bores undifferentiated Richmond river basin	959	40	48,500	780	1500	29.5%	8000	7.5%	20,000	6.2%
Richmond River alluvium	383	40	48,500	885	1500	34.5%	8000	9.7%	20,000	8.6%
Lamington Volcanics (basalts)	249	50	9,250	499	1500	13.7%	8000	2.8%	20,000	2.4%
Grafton Formation undifferentiated (Piora and Rappville)	60	80	10,100	1250	1500	46.7%	8000	3.3%	20,000	0%
Walloon Coal Measures	16	400	4,460	1030	1500	25.0%	8000	0%	20,000	0%
Walloon Coal Measures (CLM bioregion-wide)	92	86	26,500	4095	1500	75.3%	8000	25.0%	20,000	7.6%
Gatton Sandstone (CLM bioregion-wide)	218	92	39,000	5000	1500	90.8%	8000	29.4%	20,000	2.8%
Koukandowie Formation (CLM bioregion-wide)	21	765	20,000	4750	1500	14.3%	8000	23.8%	20,000	4.8%
Woogaroo Subgroup (CLM bioregion-wide)	237	65	20,000	870	1500	31.7%	8000	1.7%	20,000	0.4%

[a]Based on Australian Drinking Water Guidelines NHMRC and NRMMC (2011) and approximate conversion from TDS to EC. TDS >900mg/L is considered poor.
[b]Based on Table 4.2.5 in the National Water Quality Management Strategy ANZECC/ARMCANZ (2000).
[c]Based on National Water Quality Management Strategy ANZECC/ARMCANZ (2000) and approximate conversion from TDS to EC. TDS >13,000mg/L is the maximum concentration when a decline in health of stock would be expected (ANZECC/ARMCANZ, 2000).
Data: Bureau of Meteorology (Dataset 1), Queensland Department of Natural Resources and Mines (Dataset 2)

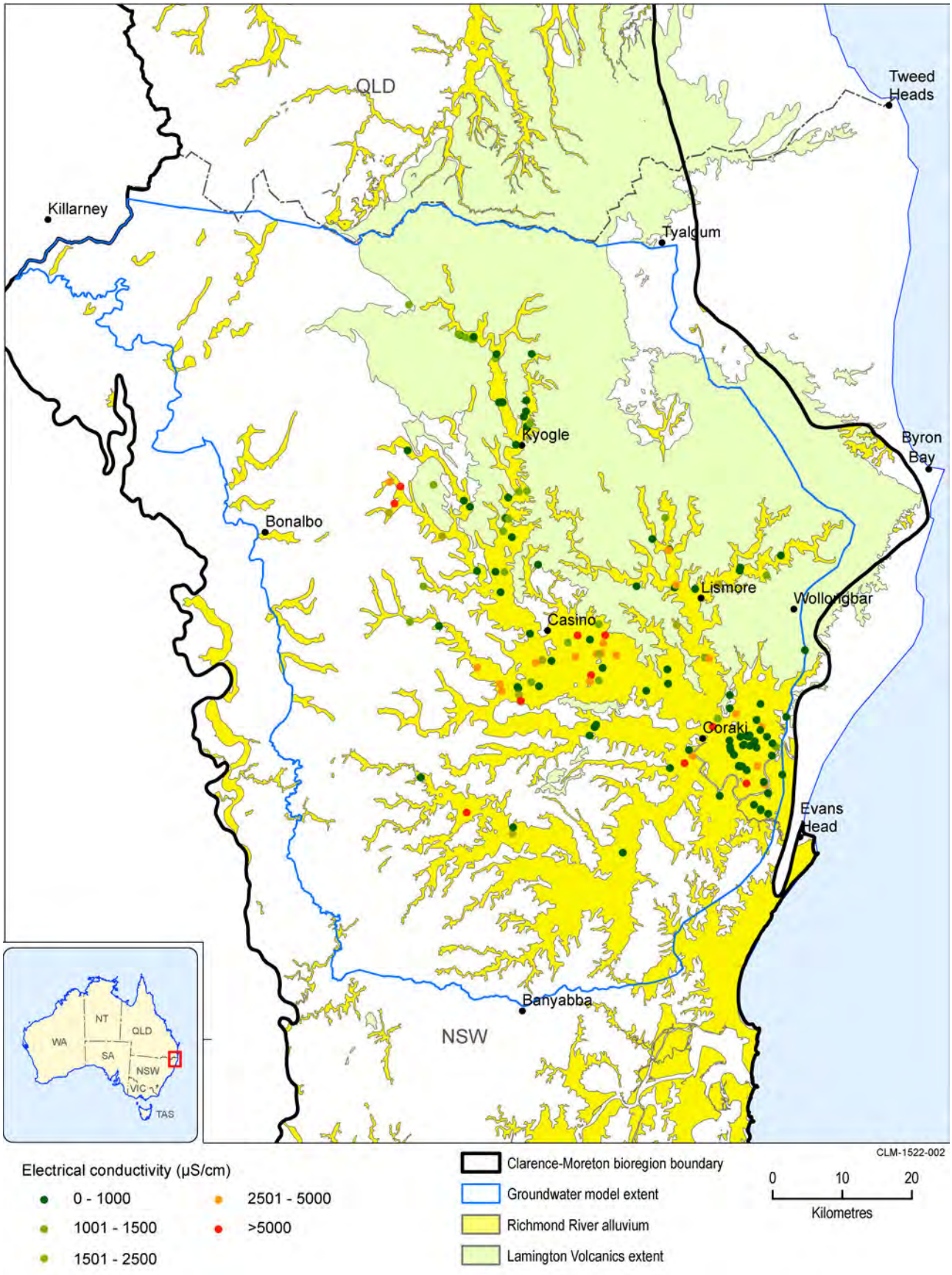

Figure 11 Distribution of electrical conductivity (EC) from alluvial groundwater bores in the Richmond river basin

Data: Bioregional Assessment Programme (Dataset 3)

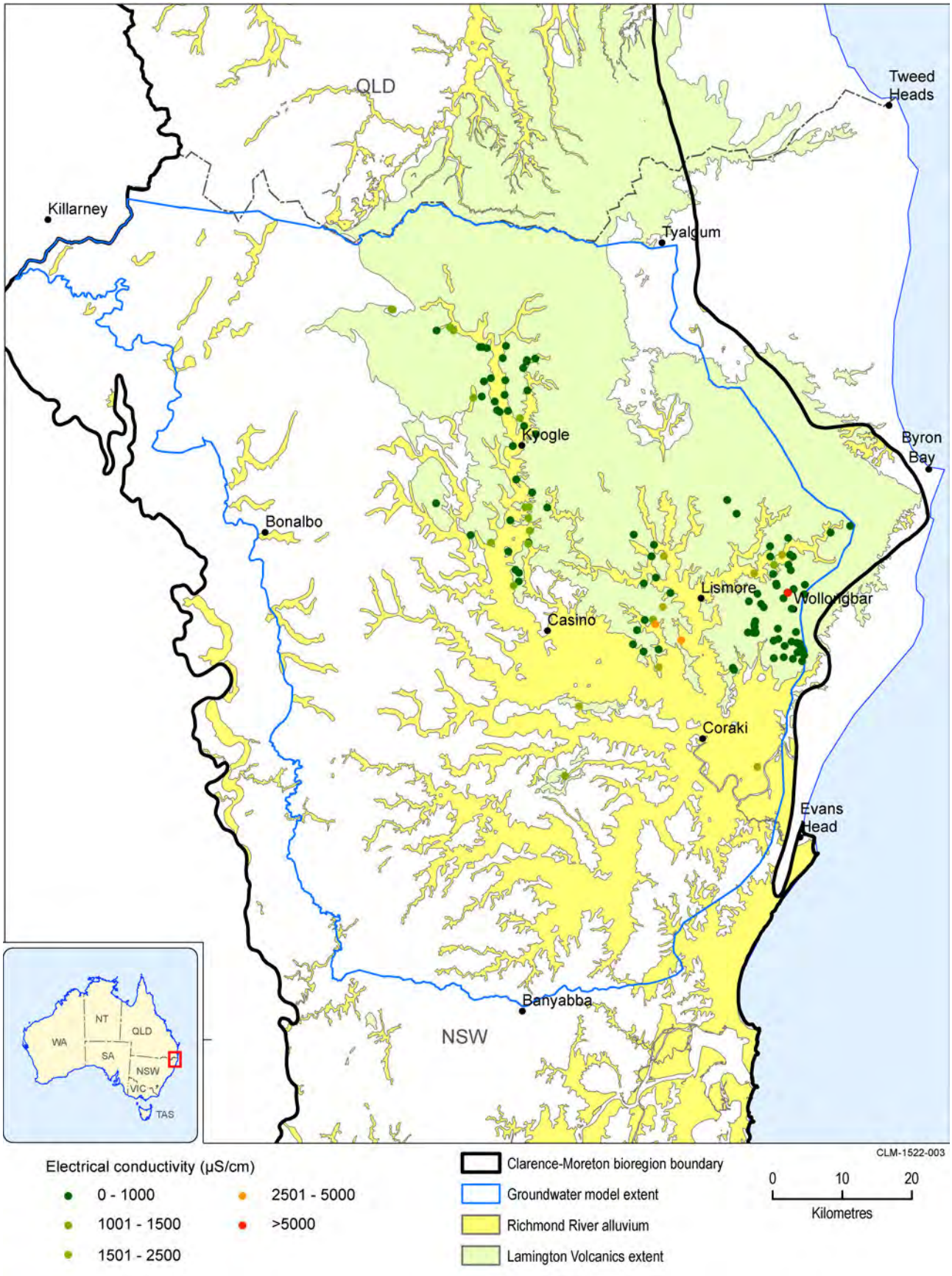

Figure 12 Distribution of electrical conductivity (EC) from Lamington Volcanics (basalt) groundwater bores in the Richmond river basin

Data: Bioregional Assessment Programme (Dataset 4)

One of the problems with pH measurements in the NSW and Queensland groundwater databases is that it is not always clear if the reported value represents the field measurement or the laboratory measurement, and particularly for samples that were collected decades ago, there is considerable uncertainty. In the Queensland Department of Natural Resources and Mines Groundwater Database (Dataset 2), most reported values appear to be laboratory measurements, whereas no information on whether the values represent field or laboratory measurements is provided for NSW.

The pH of groundwater samples in the Richmond river basin varies from 2.8 to 14.0 (Table 15). However, the median pH of most aquifers is within a narrow range from 7.1 to 7.5. The notable exceptions are the median pH of the Walloon Coal Measures (bioregion-wide), the Koukandowie Formation (bioregion-wide) and the Gatton Sandstone (bioregion-wide), which are higher and range from 7.9 to 8.2. While it is unusual for groundwater samples to have pH higher than approximately 9, selected bores within the Walloon Coal Measures and the Gatton Sandstone in the Clarence-Moreton bioregion have been visited during a previous study (Raiber, unpublished data), and these visits have confirmed that a high pH in a similar range as reported in the groundwater database occurs at these sites.

Table 15 Minimum, maximum and median pH for the aquifers in the Richmond river basin and Clarence-Moreton bioregion-wide for selected sedimentary bedrock aquifers

	Minimum pH	Maximum pH	Median pH
All samples (aquifer undifferentiated)	3.0	12.6	7.2
Richmond River alluvium	3.2	8.8	7.1
Basalt	4.4	12.6	7.2
Grafton Formation undifferentiated (Piora and Rapville members)	5.0	8.1	7.5
Walloon Coal Measures (Richmond river basin)	5.0	9.0	7.3
Walloon Coal Measures (Clarence-Moreton bioregion-wide)	5.9	12.0	8.2
Gatton Sandstone (Clarence-Moreton bioregion-wide)	5.2	14.0	7.9
Koukandowie Formation (Clarence-Moreton bioregion-wide)	6.2	8.7	8.1
Woogaroo Subgroup (Clarence-Moreton bioregion-wide)	2.8	9.0	7.2

Data: Bureau of Meteorology (Dataset 1), Queensland Department of Natural Resources and Mines (Dataset 2)

1.5.2.2.2 Trace elements

Only a very limited number of measurements are available for most trace elements, with the exception of aluminium, fluoride, iron and nitrate (Table 16). Exceedances for the trace elements available in the dataset were assessed using the ADWG for human consumption (NHMRC and NRMMC, 2011) and NWQMS (ANZECC/ARMCANZ, 2000) for stock watering and irrigation water (Table 16).

Due to the small number of measurements, the data presented in Table 16 do not provide a representative overview of the variability within the Richmond river basin and hence should be considered with caution. In addition, for some trace elements, difficulties can arise due to the absence of reported detection limits; as an example, this is evident for lead (Pb) where most samples are reported as 0.02 mg/L, and are therefore formally in exceedance of the AWDG trigger of 0.01 mg/L. However, it appears likely that most of these values represent the detection limit, and the actual value may therefore be smaller.

Table 16 Number of analyses and exceedances for trace elements in the Richmond river basin. Concentrations of metals are based on soluble form

	Number of analyses	Minimum value (mg/L)	Maximum value (mg/L)	ADWG[a] trigger (mg/L)	Fraction in exceedance of guidelines (%)	Irrigation trigger[b] (mg/L)	Fraction in exceedance of guidelines (%)	Stock trigger[c] (mg/L)	Fraction in exceedance of guidelines (%)
Aluminium (Al)	29	0.01	6.2	0.2[e]	3.4%	5	3.4%	5	3.4%
Arsenic (As)	17	bd[d]	0.01	0.01	5.9%	NA	0.0%	NA	0.0%
Barium (Ba)	3	bd[d]	bd[d]	2	0.0%	NA	NA	NA	NA
Boron (B)	4	bd[d]	3.3	4	0.0%	0.5	25.0%	5	0.0%
Cobalt (Co)	0	NA	NA	NA	NA	0.05	NA	1	NA
Chromium (Cr)	19	0.01	0.06	0.05	5.0%	1	0.0%	1	0.0%
Copper (Cu)	26	bd[d]	0.06	2	0.0%	1	0.0%	1	0.0%
Fluoride (F)	511	bd[d]	20	1.5	1.6%	1	2.2%	2	1.0%
Iron (Fe)	66	bd[d]	3.7	0.3[e]	24.2%	0.2	24.2%	NA	NA
Manganese (Mn)	26	bd[d]	1.3	0.1[e]	46.2%	0.2	19.2%	NA	NA
Molybdenum (Mo)	0	NA	NA	0.05	NA	0.01	NA	NA	NA
Nickel (Ni)	0	NA	NA	0.02	NA	0.2	NA	1	NA
Nitrate (NO_3)	977	bd[d]	35.02	50	0.0%	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	0.01	NA	2	NA	0.1	NA
Zinc (Zn)	27	0.01[d]	0.92	3[e]	0.0%	2	0.0%	2	0.0%

[a]Table 3.4.1 in Australian Drinking Water Guidelines (NHMRC and NRMMC, 2011)
[b]Table 4.2.10 in National Water Quality Management Strategy (ANZECC/ARMCANZ, 2000)
[c]Table 4.3.2 in National Water Quality Management Strategy (ANZECC/ARMCANZ, 2000)
[d]Below detection limit
[e]Aesthetic water quality trigger (not health related). NA = data not available
Data: Bureau of Meteorology (Dataset 1)

1.5.2.2.3 Gaps

The coverage of bores with available groundwater quality data is limited for the deeper sedimentary bedrock hydrogeological units in the Richmond river basin. This likely reflects that these deeper units have to date not been extensively utilised as groundwater supply aquifers (most of the groundwater extraction occurred from the basalts and the alluvium, as also highlighted in Section 1.5.1 of this product).

The quality of the hydrochemistry data available for this assessment is difficult to determine. Analytical uncertainties or detection limits are not reported in the NSW groundwater quality dataset (Bureau of Meteorology, Dataset 1). The dataset includes groundwater chemistry records that were collected from 1970 to 2007, and the different analytical techniques used during this long period of time involve different levels of accuracy and precision that result in inherent uncertainties. A lack of information on sampling protocols, particularly for trace elements, provides a further source of uncertainty.

The stratigraphic unit at the screened interval is unknown for many bores in the Richmond river basin. As this information is crucial to assess the differences of groundwater quality for different aquifers, one of the biggest challenges was to determine the stratigraphy of the bores, including the identification of the stratigraphic unit at the bore screen from the lithological logs. Following extensive initial data quality checks, this was achieved for a large number of bores by converting the lithological logs to stratigraphic logs and importing the data into a three-dimensional geological modelling software (followed by further substantial cross-checking), as discussed in detail in companion product 2.1-2.2 for the Clarence-Moreton bioregion (Raiber et al., 2015).

Most trace elements have data available for only a few groundwater sampling sites. Where analyses have been performed, several elements have concentrations above ADWG or NWQMS triggers, but the current dataset is too sparse and the quality too uncertain to make conclusions about trigger value exceedances of these elements. Therefore, additional work is required to understand the range and distribution of trace element concentrations in the Richmond river basin.

References

ANZECC/ARMCANZ (2000) National Water Quality Management Strategy: Paper No 4 - Australian and New Zealand guidelines for fresh and marine water quality: Volume 1 - The Guidelines. Australian and New Zealand Environment and Conservation Council and the Agriculture and Resource Management Council of Australia and New Zealand, Commonwealth of Australia, Australia.

Brodie R, Sundaram B, Tottenham R, Hostetler S and Ransley T (2007) An overview of tools for assessing groundwater-surface water connectivity. Bureau of Rural Sciences, Canberra.

NHMRC and NRMMC (2011) Australian Drinking Water Guidelines Paper 6 National Water Quality Management Strategy. National Health and Medical Research Council, National Resource Management Ministerial Council, Commonwealth of Australia, Canberra.

Raiber M, Cui T, Pagendam D, Rassam D, Gilfedder M, Crossbie R, Marvanek S and Hartcher M (2015) Observations analysis, statistical analysis and interpolation for the Clarence-Moreton bioregion. Product 2.1-2.2 from the Clarence-Moreton Bioregional Assessment. Department of the Environment, Bureau of Meteorology, CSIRO and Geoscience Australia, Australia. Viewed 20 July 2015, http://data.bioregionalassessments.gov.au/product/CLM/CLM/2.1-2.2.

Rassam D, Raiber M, McJannet D, Janardhanan S, Murray J, Gilfedder M, Cui T, Matveev V, Doody T, Hodgen M and Ahmad ME (2014) Context statement for the Clarence-Moreton bioregion. Product 1.1 from the Clarence-Moreton Bioregional Assessment. Department of the Environment, Bureau of Meteorology, CSIRO and Geoscience Australia, Australia. Viewed 20 July 2015, http://data.bioregionalassessments.gov.au/product/CLM/CLM/1.1.

Datasets

Dataset 1 Bureau of Meteorology (2014) NSW Office of Water – National Groundwater Information System. Bioregional Assessment Source Dataset. Viewed 23 March 2014, http://data.bioregionalassessments.gov.au/dataset/7ab9820e-1e43-4600-8875-a0834345fb6d.

Dataset 2 Queensland Department of Natural Resources and Mines (2014) Queensland groundwater bore data – update March 2014. Bioregional Assessment Source Dataset. Viewed 10 March 2014, (record pending).

Dataset 3 Bioregional Assessment Programme (2015) CLM - Richmond river alluvium Electrical Conductivity v01. Bioregional Assessment Derived Dataset. Viewed 19 October 2015, http://data.bioregionalassessments.gov.au/dataset/608d1699-2267-41db-bbfc-c89499fc0136.

Dataset 4 Bioregional Assessment Programme (2015) CLM - Richmond river basalt Electrical Conductivity v01. Bioregional Assessment Derived Dataset. Viewed 19 October 2015, http://data.bioregionalassessments.gov.au/dataset/e6457df0-71f9-4139-bd6e-d16558f3d3d7.

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Department of the Environment
Bureau of Meteorology
Geoscience Australia

CSIRO

RESULTS OF WATER ANALYSIS

9 samples supplied by Ground Water Data Collection Service on 6/04/18. Lab Job No.G9108

Samples submitted by [redacted]. Your Job: Blakebrook Quarry GW

2 Tildon Drive CLUNES NSW 2480

Parameter	Methods reference	Sample 1 BQSI-S	Sample 2 BQDI-I	Sample 3 BQSI-D	Sample 4 BQN1-B	Sample 5 BQN1-A	Sample 6 BQN1-D	Sample 7 BQN2-B	Sample 8 BQN2-A	Sample 9 BQN2-D
Job No.		*G9108/1*	*G9108/2*	*G9108/3*	*G9108/4*	*G9108/5*	*G9108/6*	*G9108/7*	*G9108/8*	*G9108/9*
pH	APHA 4500-H$^+$-B	6.65	7.93	8.27	7.07	9.94	8.71	11.01	8.23	8.81
Conductivity (EC) (dS/m)	APHA 2510-B	0.354	1.559	1.790	1.148	1.825	1.417	1.135	0.808	1.004
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	241	1,060	1,217	781	1,241	964	772	549	683
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	28	20	78	3	164	36	65	16	15
Total Oils and Grease (mg/L)	APHA 5520-D (hexane extractable)	<1	<1	<1	4	<1	4	<1	<1	<1
Nitrate (mg/L N)	APHA 4500 NO_3^--F	0.039	0.042	0.046	<0.005	0.110	0.014	0.222	0.085	0.060
Silver (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Aluminium (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.240	0.107	0.343	<0.005	0.948	0.424	0.213	0.102	0.079
Arsenic (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	<0.001	0.001	0.001	0.002	0.001	0.003	0.004	0.002	0.002
Cadmium (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.002	<0.001	0.002	<0.001	0.004	0.003	<0.001	0.002	<0.001
Copper (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.005	0.002	0.003	<0.001	0.005	0.103	0.001	0.013	0.002
Iron (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.792	0.382	1.021	1.891	0.899	1.342	0.073	0.187	0.129
Manganese (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.142	0.112	0.045	0.152	0.077	0.029	0.005	0.030	0.015
Nickel (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.010	0.005	0.009	<0.001	0.005	0.005	0.001	0.023	<0.001
Lead (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.001	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
Selenium (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Zinc (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.024	0.038	0.048	0.005	0.017	0.031	0.010	0.027	0.012
Mercury (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
BTEX										
Benzene (µg/L or ppb)	Subcontracted: Envirolab report 189065	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene (µg/L or ppb)	Subcontracted: Envirolab report 189065	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene (µg/L or ppb)	Subcontracted: Envirolab report 189065	<1	<1	<1	<1	<1	<1	<1	<1	<1
m+p-Xylene (µg/L or ppb)	Subcontracted: Envirolab report 189065	<2	<2	<2	<2	<2	<2	<2	<2	<2
o-Xylene (µg/L or ppb)	Subcontracted: Envirolab report 189065	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene (µg/L or ppb)	Subcontracted: Envirolab report 189065	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Recoverable Hydrocarbons (TRH)										
C6-C9 Fraction (µg/L or ppb)	Subcontracted: Envirolab report 189065	<10	<10	<10	<10	<10	<10	<10	<10	<10
C10-C14 Fraction (µg/L or ppb)	Subcontracted: Envirolab report 189065	<50	<50	<50	<50	<50	<50	<50	<50	<50
C15-C28 Fraction (µg/L or ppb)	Subcontracted: Envirolab report 189065	<100	<100	<100	<100	<100	<100	<100	<100	<100
C29-C36 Fraction (µg/L or ppb)	Subcontracted: Envirolab report 189065	<100	<100	<100	<100	<100	<100	<100	<100	<100
C10-C16 Fraction (µg/L or ppb)	Subcontracted: Envirolab report 189065	<50	<50	<50	<50	<50	<50	<50	<50	<50
C10-C16 less Naphthalene Fraction (µg/L or ppb)	Subcontracted: Envirolab report 189065	<50	<50	<50	<50	<50	<50	<50	<50	<50
C16-C34 Fraction (µg/L or ppb)	Subcontracted: Envirolab report 189065	<100	<100	<100	<100	<100	<100	<100	<100	<100
C34-C40 Fraction (µg/L or ppb)	Subcontracted: Envirolab report 189065	<100	<100	<100	<100	<100	<100	<100	<100	<100

Notes:

1. Total metals - samples digested with nitric acid; Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to pH <2
   Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
2. Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
3. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre) = 1000 ppb (part per billion).
4. For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
5. Analysis performed according to APHA (2017) 'Standard Methods for the Examination of Water & Wastewater', 23rd Edition, except where stated otherwise.
6. Analysis conducted between sample arrival date and reporting date.
7. ** NATA accreditation does not cover the performance of this service.
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check [redacted]

RESULTS OF WATER ANALYSIS

9 samples supplied by Ground Water Data Collection Service on 28/06/18. Lab Job No.H1879
Samples submitted by [redacted]r. Your Job: Blakebrook Quarry
Your Client: Lismore City Council
2 Tildon Drive CLUNES NSW 2480

Parameter	Methods reference	Sample 1 BQSI-S 27.06.18 11:00	Sample 2 BQSI-I 27.06.18 11:50	Sample 3 BQSI-D 27.06.18 13:00	Sample 4 BQNI-B 27.06.18 14:45	Sample 5 BQNI-A 27.06.18 15:30	Sample 6 BQNI-D 28.06.18 10:15	Sample 7 BQN2-B 28.06.18 12:00	Sample 8 BQN2-A 28.06.18 12:15	Sample 9 BQN2-D 28.06.18 13:20
Job No.		*H1879/1*	*H1879/2*	*H1879/3*	*H1879/4*	*H1879/5*	*H1879/6*	*H1879/7*	*H1879/8*	*H1879/9*
pH	APHA 4500-H^+-B	6.81	8.12	8.30	7.13	11.34	9.10	11.07	8.13	8.85
Conductivity (EC) (dS/m)	APHA 2510-B	0.399	1.58	1.81	1.14	2.07	1.38	1.11	1.20	1.01
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	271	1,075	1,227	778	1,408	938	753	817	685
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	25	540	207	6	125	21	101	45	773
Total Oils and Grease (mg/L)	APHA 5520-D (hexane extractable)	8	4	3	4	<2	3	3	8	4
Nitrate (mg/L N)	APHA 4500 NO_3^--F	0.036	0.019	0.077	<0.005	0.356	0.068	0.277	0.147	0.072
Silver (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
Aluminium (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.188	1.084	0.599	0.003	1.936	0.476	0.947	0.189	0.559
Arsenic (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	<0.001	0.001	0.001	0.003	0.001	0.003	0.004	0.004	0.002
Cadmium (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.002	0.002	0.002	<0.001	0.008	0.005	0.001	0.003	0.001
Copper (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.004	0.003	0.003	0.002	0.019	0.043	0.006	0.010	0.013
Iron (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	1.292	5.811	2.155	2.104	2.062	1.749	0.535	0.301	4.528
Manganese (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.175	0.180	0.059	0.150	0.113	0.033	0.026	0.039	0.065
Nickel (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.008	0.011	0.009	<0.001	0.037	0.009	0.005	0.011	0.008
Lead (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.001	0.005	0.004	<0.001	0.002	<0.001	0.001	0.001	0.005
Selenium (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	0.027	0.143	0.080	0.011	0.041	0.040	0.045	0.021	0.169
Mercury (mg/L)	Total Available - APHA 3125 ICPMS[note 1&2]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
BTEX										
Benzene (µg/L or ppb)	Subcontracted: SGS report SE 181024	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene (µg/L or ppb)	Subcontracted: SGS report SE 181024	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene (µg/L or ppb)	Subcontracted: SGS report SE 181024	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m+p-Xylene (µg/L or ppb)	Subcontracted: SGS report SE 181024	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene (µg/L or ppb)	Subcontracted: SGS report SE 181024	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene (µg/L or ppb)	Subcontracted: SGS report SE 181024	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Recoverable Hydrocarbons (TRH)										
C6-C9 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 181024	<40	<40	<40	<40	<40	<40	<40	<40	<40
C10-C14 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 181024	<50	<50	<50	<50	<50	<50	<50	<50	<50
C15-C28 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 181024	<200	<200	<200	<200	<200	<200	<200	<200	<200
C29-C36 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 181024	<200	<200	<200	<200	<200	<200	<200	<200	<200
C10-C16 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 181024	<60	<60	<60	<60	<60	<60	<60	<60	<60
C10-C16 less Naphthalene Fraction (µg/L or ppb)	Subcontracted: SGS report SE 181024	<60	<60	<60	<60	<60	<60	<60	<60	<60
C16-C34 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 181024	<500	<500	<500	<500	<500	<500	<500	<500	<500
C34-C40 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 181024	<500	<500	<500	<500	<500	<500	<500	<500	<500

Notes:

1. Total metals - samples digested with nitric acid; Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to pH <2
   Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
2. Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
3. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre) = 1000 ppb (part per billion).
4. For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
5. Analysis performed according to APHA (2017) 'Standard Methods for the Examination of Water & Wastewater', 23rd Edition, except where stated otherwise.
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Environmental Analysis Laboratory, Southern Cross University,
Tel: 02 6620 3678, website: scu.edu.au/eal

[redacted]
Laboratory Manager

RESULTS OF WATER ANALYSIS

9 samples supplied by Ground Water Data Collection Service on 20th September, 2018. Lab Job No.H4213

Samples submitted by [redacted]. Your Job: Blakebrook Quarry

2 Tildon Drive CLUNES NSW 2480

Parameter	Methods reference	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8	Sample 9
		BQSI-S	BQSI-I	BQSI-D	BQNI-B	BQNI-A	BQNI-D	BQN2-B	BQN2-A	BQN2-D
	Job No.	*H4213/1*	*H4213/2*	*H4213/3*	*H4213/4*	*H4213/5*	*H4213/6*	*H4213/7*	*H4213/8*	*H4213/9*
pH	APHA 4500-H^+-B	7.12	8.10	8.43	7.22	9.53	9.06	11.22	8.05	8.94
Conductivity (EC) (dS/m)	APHA 2510-B	0.512	1.580	1.820	1.160	1.950	1.440	1.110	0.894	0.962
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	348	1,074	1,238	789	1,326	979	755	608	654
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	541	205	436	2	132	3,100	107	13	30
Total Oils and Grease (mg/L)	APHA 5520-D (hexane extractable)	4.3	5.0	7.4	3.7	1.7	2.9	1.5	1.6	1.5
Nitrate (mg/L N)	APHA 4500 NO_3^--F	0.049	0.046	0.044	<0.005	0.076	0.040	0.268	0.081	0.054
Silver (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Aluminium (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	0.634	0.310	0.961	<0.005	0.536	44.5	0.181	0.059	0.077
Arsenic (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	<0.001	0.001	0.001	0.002	0.001	0.009	0.003	0.002	0.002
Cadmium (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
Chromium (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	0.001	0.001	0.003	<0.001	0.004	0.102	0.001	0.001	<0.001
Copper (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	0.003	0.003	0.003	<0.001	0.003	0.796	0.001	0.009	0.003
Iron (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	2.73	0.678	3.93	1.74	0.500	158	0.097	0.157	0.120
Manganese (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	0.151	0.097	0.079	0.150	0.049	1.315	0.004	0.039	0.007
Nickel (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	0.008	0.004	0.010	<0.001	0.003	0.300	0.001	0.013	0.001
Lead (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	0.004	0.002	0.005	<0.001	0.001	0.007	<0.001	<0.001	<0.001
Selenium (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	<0.002	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	<0.002	<0.002
Zinc (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	0.096	0.052	0.125	0.003	0.009	1.23	0.006	0.012	0.010
Mercury (mg/L)	Total Available - APHA 3125 ICPMS*note 1&2	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
BTEX										
Benzene (µg/L or ppb)	Subcontracted: SGS report SE 184351	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene (µg/L or ppb)	Subcontracted: SGS report SE 184351	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene (µg/L or ppb)	Subcontracted: SGS report SE 184351	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m+p-Xylene (µg/L or ppb)	Subcontracted: SGS report SE 184351	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene (µg/L or ppb)	Subcontracted: SGS report SE 184351	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene (µg/L or ppb)	Subcontracted: SGS report SE 184351	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Recoverable Hydrocarbons (TRH)										
C6-C9 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 184351	<40	<40	<40	<40	<40	<40	<40	<40	<40
C10-C14 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 184351	<50	<50	<50	<50	<50	<50	<50	<50	<50
C15-C28 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 184351	<200	<200	<200	<200	<200	<200	<200	<200	<200
C29-C36 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 184351	<200	<200	<200	<200	<200	<200	<200	<200	<200
C10-C16 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 184351	<60	<60	<60	<60	<60	<60	<60	<60	<60
C10-C16 less Naphthalene Fraction (µg/L or ppb)	Subcontracted: SGS report SE 184351	<60	<60	<60	<60	<60	<60	<60	<60	<60
C16-C34 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 184351	<500	<500	<500	<500	<500	<500	<500	<500	<500
C34-C40 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 184351	<500	<500	<500	<500	<500	<500	<500	<500	<500

Notes:

1. Total metals - samples digested with nitric acid; Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to pH <2
   Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
2. Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
3. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre) = 1000 ppb (part per billion).
4. For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
5. Analysis performed according to APHA (2017) 'Standard Methods for the Examination of Water & Wastewater', 23rd Edition, except where stated otherwise.
6. Analysis conducted between sample arrival date and reporting date.
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[redacted]
checked: .....
[redacted]
Laboratory Manager

RESULTS OF WATER ANALYSIS

12 samples collected for Ground Water Data Colelction Service on the 7th December, 2018 - Lab. Job No. H6673

Analysis requested by [redacted]. Your Project: PO 68163 Blakebrook Quarry - GW and SW

2 Tildon Drive CLUNES NSW 2480

Parameter	Methods reference	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
		BQS1-S	BQS1-I	BQS1-D	BQN1-B	BQN1-A
	Job No.	*H6673/1*	*H6673/2*	*H6673/3*	*H6673/4*	*H6673/5*
pH	APHA 4500-H⁺-B	6.84	8.16	8.29	7.04	9.7
Conductivity (EC) (dS/m)	APHA 2510-B	0.45	1.554	1.777	1.126	1.917
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	306	1057	1208	766	1304
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	252	448	264	20.5	151
Turbidity (NTU)	APHA 2130	..	..	..	..	..
Dissolved Oxygen (mg/L O_2)	Onsite	..	..	..	..	..
Akalinity (mg/L CaCO3)	** Total Alkalinity - APHA 2320	..	..	..	..	..
Total Oils and Grease (mg/L)	APHA 5520-D (hexane extractable)	<2	<2	<2	<2	<2
Nitrate (mg/L N)	APHA 4500 NO_3^--F	0.03	<0.005	0.075	<0.005	0.374
Silver (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001	<0.001	<0.001	<0.001
Aluminium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.487	0.804	0.356	<0.005	0.952
Arsenic (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	0.001	0.001	0.003	0.001
Cadmium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.001	0.001	0.001	<0.001	0.004
Copper (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.004	0.006	0.005	<0.001	0.006
Iron (mg/L)	Total - APHA 3125 ICPMS*note 1&2	2.627	4.888	1.102	1.705	0.940
Manganese (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.151	0.157	0.049	0.148	0.066
Nickel (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.008	0.007	0.010	<0.001	0.004
Lead (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.002	0.004	0.004	<0.001	0.001
Selenium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.002	<0.002	<0.002	<0.002	<0.002
Zinc (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.043	0.142	0.048	0.003	0.016
Mercury (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Silver (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Aluminium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Arsenic (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Cadmium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Chromium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Copper (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Iron (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Manganese (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Nickel (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Lead (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Selenium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Zinc (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
Mercury (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	..
BTEX						
Benzene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
m+p-Xylene (µg/L or ppb)	Subcontracted: SGS report SE187233	<1	<1	<1	<1	<1
o-Xylene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Total Recoverable Hydrocarbons (TRH)						
C6-C9 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<40	<40	<40	<40	<40
C10-C14 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<50	<50	<50	<50	<50
C15-C28 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<200	<200	<200	<200	<200
C29-C36 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<200	<200	<200	<200	<200
C10-C16 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<60	<60	<60	<60	<60
C16-C34 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<500	<500	<500	<500	<500
C34-C40 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<500	<500	<500	<500	<500

Notes:

1. Total metals - samples digested with nitric acid; Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to pH <2
   Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
2. Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
3. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre) = 1000 ppb (part per billion).
4. For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
5. Analysis performed according to APHA (2017) 'Standard Methods for the Examination of Water & Wastewater', 23rd Edition, except where stated otherwise.
6. Analysis conducted between sample arrival date and reporting date.
7. ** NATA accreditation does not cover the performance of this service.
8. .. Denotes not requested.
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[redacted]

checked: [redacted]

RESULTS OF WATER ANALYSIS

12 samples collected for Ground Water Data Colelction Service on the 7th December, 20
Analysis requested by [redacted] Your Project: PO 68163 Blakebrook Quarry - GW a
2 Tildon Drive CLUNES NSW 2480

Parameter	Methods reference	Sample 6	Sample 7	Sample 8	Sample 9	Sample 10
		BQN1-D	BQN2-B	BQN2-A	BQN2-D	BQSW1
	Job No.	*H6673/6*	*H6673/7*	*H6673/8*	*H6673/9*	*H6673/10*
pH	APHA 4500-H*-B	8.9	9.21	8.01	8.92	7.47
Conductivity (EC) (dS/m)	APHA 2510-B	1.413	1.149	1.54	0.965	0.906
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	961	781	1047	656	616
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	88.5	16.5	344	470	223
Turbidity (NTU)	APHA 2130	..	..	..	..	67
Dissolved Oxygen (mg/L O_2)	Onsite	..	..	..	..	0.17
Alkalinity (mg/L CaCO3)	** Total Alkalinity - APHA 2320	..	..	..	..	..
Total Oils and Grease (mg/L)	APHA 5520-D (hexane extractable)	<2	2	3	3	3
Nitrate (mg/L N)	APHA 4500 NO_3^--F	0.096	0.068	0.023	0.073	<0.005
Silver (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001	<0.001	<0.001	<0.001
Aluminium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	1.112	0.094	0.451	0.228	0.324
Arsenic (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.004	0.003	0.005	0.002	0.004
Cadmium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.005	<0.001	<0.001	<0.001	<0.001
Copper (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.119	0.002	0.007	0.005	0.002
Iron (mg/L)	Total - APHA 3125 ICPMS*note 1&2	4.069	0.059	1.484	1.526	5.470
Manganese (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.074	0.013	0.110	0.036	8.272
Nickel (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.010	0.001	0.009	0.003	0.004
Lead (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.001	<0.001	0.002	0.002	<0.001
Selenium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.002	<0.002	<0.002	<0.002	<0.002
Zinc (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.066	0.004	0.020	0.057	0.011
Mercury (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Silver (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.001
Aluminium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	0.005
Arsenic (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	0.003
Cadmium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.001
Chromium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.001
Copper (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.001
Iron (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	1.064
Manganese (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	8.461
Nickel (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	0.002
Lead (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.001
Selenium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.002
Zinc (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	0.016
Mercury (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	..	..	..	..	<0.0005
BTEX						
Benzene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
m+p-Xylene (µg/L or ppb)	Subcontracted: SGS report SE187233	<1	<1	<1	<1	<1
o-Xylene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5	<0.5	<0.5	<0.5
Total Recoverable Hydrocarbons (TRH)						
C6-C9 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<40	<40	<40	<40	<40
C10-C14 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<50	<50	<50	<50	<50
C15-C28 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<200	<200	<200	<200	<200
C29-C36 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<200	<200	<200	<200	<200
C10-C16 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<60	<60	<60	<60	<60
C16-C34 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<500	<500	<500	<500	<500
C34-C40 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<500	<500	<500	<500	<500

Notes:

1. Total metals - samples digested with nitric acid; Total available (acid soluble/ ex
   Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidifie
2. Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS
3. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per l
4. For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
5. Analysis performed according to APHA (2017) 'Standard Methods for the Examinatior
6. Analysis conducted between sample arrival date and reporting date.
7. ** NATA accreditation does not cover the performance of this service.
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[redacted]
chec
[redacted]
Laboratory Manager

RESULTS OF WATER ANALYSIS

12 samples collected for Ground Water Data Colelction Service on the 7th December, 20
Analysis requested by [redacted]. Your Project: PO 68163 Blakebrook Quarry - GW a
2 Tildon Drive CLUNES NSW 2480

Parameter	Methods reference	Sample 11	Sample 12
		BQSW2	BQSW3
	Job No.	*H6673/11*	*H6673/12*
pH	APHA 4500-H⁺-B	7.63	7.72
Conductivity (EC) (dS/m)	APHA 2510-B	0.203	0.2
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	138	136
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	10.5	11
Turbidity (NTU)	APHA 2130	10.9	10.9
Dissolved Oxygen (mg/L O_2)	Onsite	7.32	8.16
Akalinity (mg/L CaCO3)	** Total Alkalinity - APHA 2320	..	..
Total Oils and Grease (mg/L)	APHA 5520-D (hexane extractable)	3	<2
Nitrate (mg/L N)	APHA 4500 NO_3^--F	<0.005	<0.005
Silver (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Aluminium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.109	0.109
Arsenic (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Cadmium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Chromium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Copper (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.001	0.001
Iron (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.810	0.712
Manganese (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.054	0.061
Nickel (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.001	0.001
Lead (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Selenium (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.002	<0.002
Zinc (mg/L)	Total - APHA 3125 ICPMS*note 1&2	0.002	0.004
Mercury (mg/L)	Total - APHA 3125 ICPMS*note 1&2	<0.0005	<0.0005
Silver (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Aluminium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.071	0.069
Arsenic (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Cadmium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Chromium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Copper (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.001	0.001
Iron (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.565	0.505
Manganese (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.015	0.005
Nickel (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.001	0.001
Lead (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.001	<0.001
Selenium (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.002	<0.002
Zinc (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	0.003	0.003
Mercury (mg/L)	Dissolved - APHA 3125 ICPMS*note 1&2	<0.0005	<0.0005
BTEX			
Benzene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5
Toluene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5
Ethylbenzene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5
m+p-Xylene (µg/L or ppb)	Subcontracted: SGS report SE187233	<1	<1
o-Xylene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5
Naphthalene (µg/L or ppb)	Subcontracted: SGS report SE187233	<0.5	<0.5
Total Recoverable Hydrocarbons (TRH)			
C6-C9 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<40	<40
C10-C14 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<50	<50
C15-C28 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<200	<200
C29-C36 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<200	<200
C10-C16 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<60	<60
C16-C34 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<500	<500
C34-C40 Fraction (µg/L or ppb)	Subcontracted: SGS report SE187233	<500	<500

Notes:

1. Total metals - samples digested with nitric acid; Total available (acid soluble/ ex
   Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidifie
2. Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS
3. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per l
4. For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
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Laboratory Manager

MINUTES OF **NRQA COMMUNITY CONSULTATIVE COMMITTEE MEETING** – **FRIDAY 2ND MARCH 2018** GOOLMANGAR HALL, GOOLMANGAR 4.00 PM (EF11/13)

Present: [redacted] (Chairperson), [redacted] (Operations Manager Commercial Services), [redacted] (Administration) [redacted] (Administration) [redacted] (LLS)
Community members: [redacted]

Apologies: [redacted] (LCC Representative)

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1. **Welcome**

[redacted] opened the meeting and welcomed all members.

2. **Previous Minutes**

Overview of previous meeting & Minutes, were accepted as being true & correct

3. **Business arising from minutes of previous meeting**

Weed Control:

Roots Down Conservation now have an extra person in play (now 4) and they come in 2 x per month. [redacted] currently working to update the vegetation management plan to include the additional 45 ha of land recently acquired through the Environmental Offset strategy.

Environmental Offset Strategy:

[redacted] met with [redacted] (family of [redacted] property) to scope what needed to be done. (The fence down the entrance to the Quarry) We are still awaiting for a price from [redacted] for this job to be completed.

[redacted] sked about the fencing for the 45ha has it been done as yet? [redacted] t has responded that it hasn't as yet but will be Kurt to follow up with an email to [redacted] to coordinate a quote and organise the job to be done.

Bushland Regeneration:

No additional trees being planted, the decision was to direct funds to existing vegetation management as we are relying on natural reseeding.

Koala monitoring now a bi-annual event and is due again this year. This will also capture the additional 45 ha.

Groundwater monitoring:

Ground water report will be submitted in December 2018 detailing the last 5 years of monitoring data. All sub plans in our approval have been updated by ERM and Gilbert and Sutherland.

Approval was granted to enter the South pit to mine the first 10 metres of rock for a state significant project. (ie, the break wall @ Coffs Harbour – 4000 tonnes . With road base being used for the Pacific Highway upgrade by RVC, Ballina Bypass and RMS.

Sediment control plans (by Gilbert and Sutherland) for the South pit were identified to be substandard and as part of the sub plan review, new measures were implemented.

Construction of a third registered sediment catchment dam to be constructed. It will be an approved discharge point and will be approx. 1500m^3 in size.

Wild Dog baiting program:

[redacted] advises not much progress this time with the community baiting program.

[redacted] (now retired) and [redacted] certified to accept & lay the baits. NRQA coordinated this group baiting however only NRQA + 2 properties participated. There needs to be a larger group/valley coordinated baiting to cover more country and achieve better results.

Noise Monitoring:
Latest audit conducted November 2017 – no issues. No issues raised by committee members.

General business:
RPQ are now in at the Quarry and the AC plant is being commissioned and it is now up and running. LCC have leased the site to RPQ, while maintaining pull through from the quarry aggregates and royalties from the sale of AC. LCC do not operate the AC plant and head count has been reduced by 3 personnel due to this reasoning. A meeting was held between the Quarry and RPQ to discuss council buying Asphalt. RPQ are producing asphalt for the pot hole crew at this stage, as they don't have their own laying crew locally. Negotiations in this area will continue.

The quarry is extremely busy at current in keeping up demand for the rural roads rehab. 120kt over 6 months. HXR on site assisting in the crushing operations of local Govt. spec roadbase and a potential avenue to control costs. Another job with 30kt of drainage rock required for the highway work looks promising.
NRQA are struggling with maintaining 100 daily truck count limits at the Quarry and had to turn away a 30kt overburden job due to truck count limits. The Quarry has applied for a variation for an average monthly truck count rather than daily truck limit, looking for a max of 135 trucks per day average if the variation is approved. [redacted] advised they have no concerns regarding truck movements. [redacted]t has advised that on access roads due to flood mitigation – this is also limiting the size of the trucks coming and going.

[redacted] raised a concern that his wife was able to smell something burning – mostly in the afternoons and usually if there is a NE wind blowing. He states its being going on for a while now. [redacted] has also been able to smell the same (smells like hot asphalt). Due to plant not being operational until this week – [redacted] agreed to investigate and asked [redacted] o phone him or the quarry when it is noticed again.

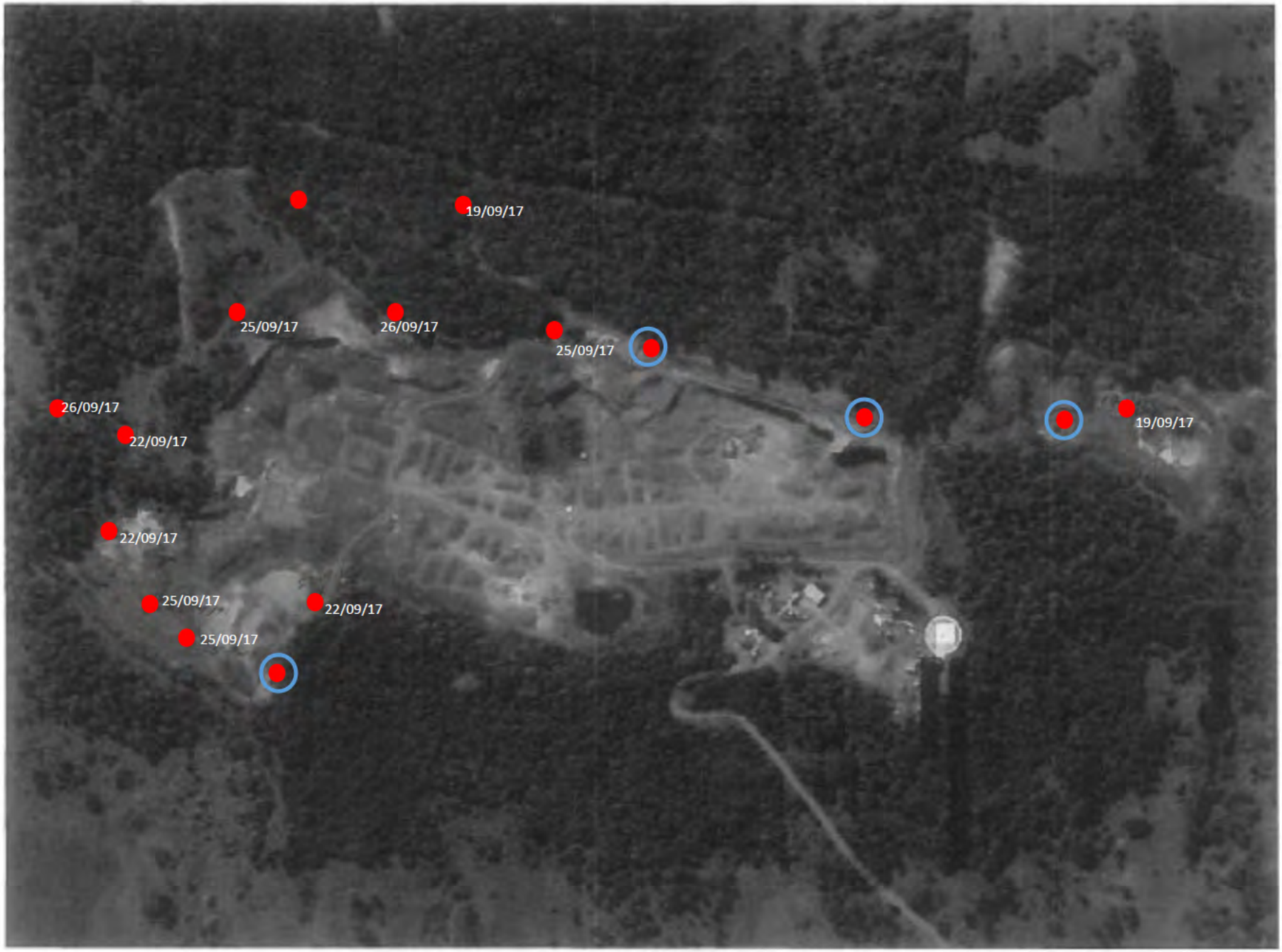
[redacted] raised concern regarding weeds and rubbish around the drain/pipe between the gates of [redacted] and J[redacted] properties. His concern is that recent heavy rain meant the drain backs up and can't move the water fast enough – which then cuts off their exit from the properties. This needs to be looked at. [redacted] to phone [redacted] and organise a time to meet on site to inspect.

[redacted] mentioned due to some staff repositioning within Council, he will be situated at the Quarry office from next week and [redacted] (now working in Fleet Logistics) is handing over admin duties to [redacted] the foreseeable future.

Audits:
Three year independent environment audit to take place this year, to be conducted by either Coffey's or Gilbert & Sutherland.
Annual environmental audit submitted to the DOP&E this week for 2017.

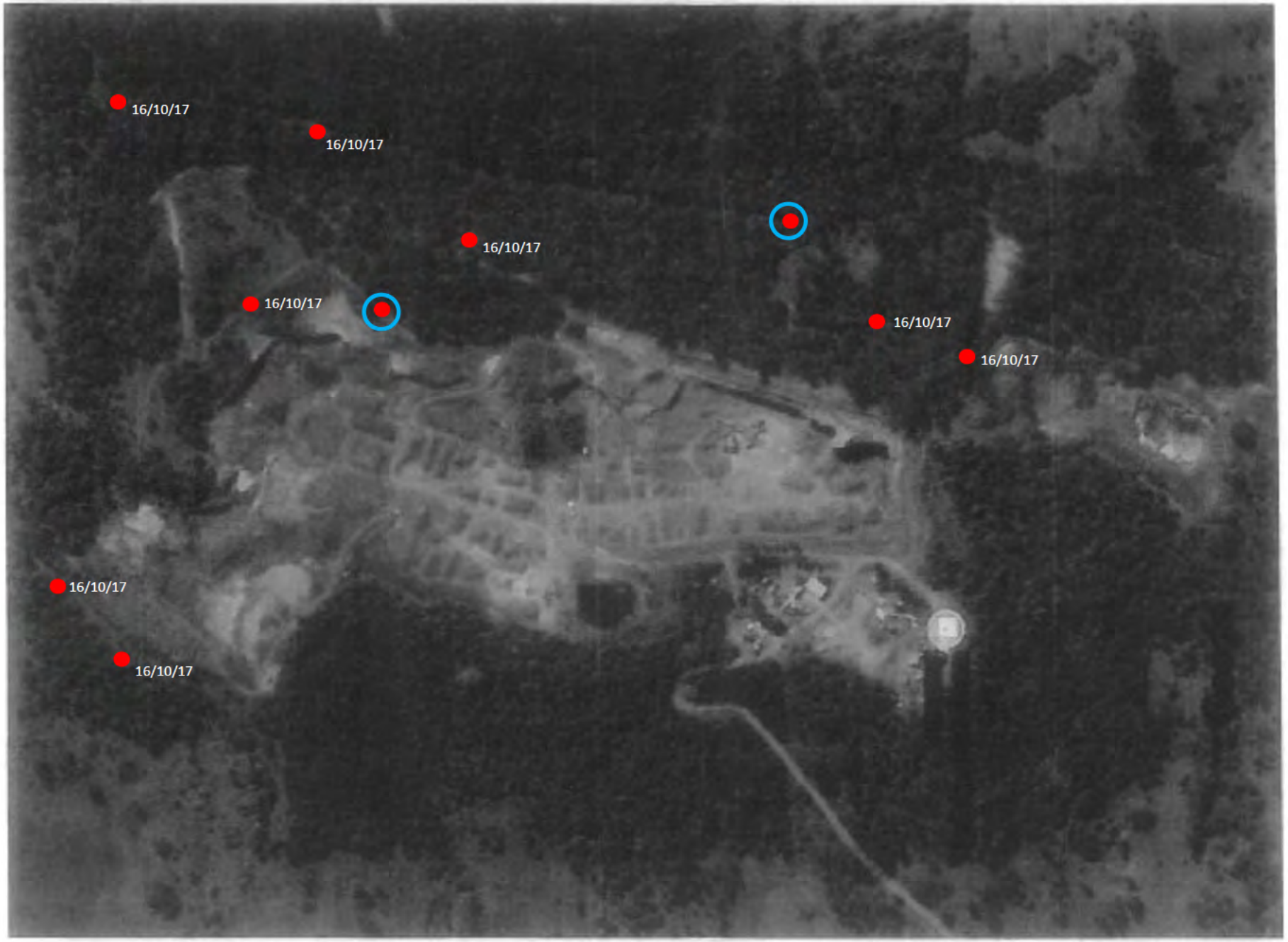
NEXT MEETING set for September 2018 at Goolmangar Hall. [redacted] will confirm closer to the date.
The meeting commenced at 4.00pm and concluded at 5.00 pm.

Item	Action Outcome	By whom & when
Fence new boundary from purchase of additional 45 ha	Email [redacted] for quote	[redacted] – end March 2018
Build up of weeds at drainage point of [redacted] property's	Organise on site inspection	[redacted] – end march 2018
Wild dog baiting	Co-ordinate with LLS [redacted]	[redacted] – July 2018



RELEASED (15)

WILD DOG BAITED PUT OUT 19.9.17 2.00



WILD DOG BAITS RECEIVED 13.10.17

WET WEATHER CAME IN ON 14.10.17

(01)

MINUTES OF NRQA COMMUNITY CONSULTATIVE COMMITTEE MEETING-
Friday 2 November 2018 – Goolmangar Hall – Goolmangar – 4:00pm (AF18/2227)

Present: [redacted] (Chairperson), [redacted] (Operations Manager Commercial Services) and [redacted] (Compliance, Administration)
Community members: [redacted] nd [redacted]

Apologies: [redacted] Local Land Services, [redacted] – Local Land Services and [redacted] Ngulingah Local Aboriginal Land Council

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1. Welcome

[redacted] opened the meeting at 4.00 pm and welcomed all members.

2. Previous Minutes

Overview of previous meeting & Minutes, were accepted as being true & correct

3. Business arising from minutes of previous meeting

Odour Issues:

[redacted] advises that there have been no further odour issues which he brought up at the last meeting.

Operations Manager [redacted] advised [redacted] to contact the Quarry or Council's Contact Centre immediately if there are any issues in the future so any problem can be traced back quickly and [redacted] can receive feedback.

Weed Control:

Update by Operations Manager on Bush Regeneration works undertaken by Roots Down. Before and after images highlighting the extent of the weed control and bush regeneration works undertaken.

Environmental Offset Strategy:

Lismore City Council is working with the Office of Environment and Heritage on options to secure the offset land. At this stage the Environmental Protection Zone (E2) appears to be the most suitable option for Council to ensure environmental protection.

Groundwater monitoring:

A detailed groundwater assessment is due to be submitted to the EPA by 18 December. This is on track for completion by end of November. Once the Council has a copy of the Groundwater assessment report members can request a copy at the next meeting.

The construction of new sediment dam has commenced to help address discharge of waters due to rainfall.

[redacted] was concerned with lack of maintenance around culverts in order to get any water away before it backs up and cuts off access to his property. [redacted] suggested [redacted] report to the Contact Centre in order for a Customer Request to be raised and for Roads to be asked to come and undertake an inspection.

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Wild Dog baiting program:
Some neighbours have commenced their Wild dog baiting program. Neighbour [redacted] contacted Council by phone to enquire as to when the Quarry was going to commence its Wild Dog baiting program. The quarries baiting program is being co-ordinated with the Quarry Operations Coordinator, the LLS and neighbour [redacted] who is collecting and laying the baits at the Quarry. Laying of baits in October was delayed a couple of weeks due to persistent rain in October.
Notification to Quarry neighbours when baits are in place has been requested by [redacted]

Noise Monitoring:
No issues raised by committee members.

General business:
[redacted] advises he is now Operations Manager for the Quarry – replacing [redacted]

The amalgamation of the Quarry and Asphalt DA is being undertaken and a Community Consultation "drop in" session was held for members of the public on the 11th October. Council is looking to increase the output of the Asphalt plant which currently is at 15,000t pa. The new DA will show a combined Quarry and Asphalt output as 600,000 tonne per annum.

[redacted] advises the truck movements are currently set at 100 per day. With the new DA the truck movements will be on average 125 per day.

The committee was informed by [redacted] of the upcoming HVAS testing which is an EPA requirement. The *High Volume Air Sampler* will be installed for 24 hours on [redacted] land subject to favourable weather conditions to undertake the monitoring.

[redacted] reminded everyone that the 2017 Annual Environmental Management Report (AEMR) is available on Council's website and anyone not able to access the Council website can request a hard copy to be posted out.

[redacted] has advised his cattle have been identified as having cattle tick and they are currently being monitored. As is another neighbour – [redacted]. [redacted] has asked if fencing can be erected with regards to keeping his cattle out of the Quarry offset land – [redacted] to follow up with [redacted] in the coming week to discuss running an electric fence along the access road.

Audits:
The annual Independent Environmental Audit for Blakebrook Quarry by Geolink Pty Ltd has been accepted has commenced.

NEXT MEETING :
Time frames for holding meetings discussed by the Chair and Committee members. Committee members are still keen to attend every 6 months or so.
Next meeting time and date mid 2019 will be advised and invites sent in due course.

The meeting concluded at 5.00 pm.

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NRQA Community Consultative Committee Action Plan

Item	Action Outcome	By whom & when
Temporary Fence (electric) to be erected to assist with exclusion of cattle into Quarry offset land	[redacted] to discuss with [redacted]	[redacted] – end of November
Wild dog baiting	Co-ordinate with LLS [redacted] & [redacted] and notify neighbours once baits placed at Quarry	Quarry Operations Coordinator/[redacted] – Nov 2018

Schedule 5 Condition 14 – Information to be provided on LCC Website

Document		Available on LCC Website 28/03/19
the documents listed in condition 2(a) of Schedule 2;		N/a - No documents listed in Condition 2(a) of Schedule 2.
current statutory approvals for the project;		-
Part 3A Approval No.07_0020 (Mod 1)		Yes. Recommended that LCC adjust location of this document within heading structure to make clearer to the public.
EPA Licence -3384		Yes. Recommended that LCC adjust naming of this document to make clearer to the public.
all approved strategies, plans and programs required under the conditions of this approval;		-
Sch. 3 Cond. 5	Noise Management Plan	Yes (Combined Noise and Blast Management Plan)
Sch. 3 Cond. 9	Blast Management Plan	Yes (Combined Noise and Blast Management Plan)
	Mine Safety Management Plan 2017	Yes
Sch. 3 Cond. 12	Air Quality Management Plan	Yes
Sch. 3 Cond. 19	Soil and Water Management Plan	Yes
	Groundwater Monitoring and Management Sub Plan	Yes
	Pollution Response Management Plan 2017	Yes
Sch. 3 Cond. 23	Traffic Management Plan	Yes
Sch. 3 Cond. 24	Aboriginal Heritage Management Plan	Yes
Sch. 3 Cond. 28	Biodiversity and Rehabilitation Management Plan	Yes
	Biodiversity Strategy	Yes
Sch. 5 – Cond. 1	Environmental Management Strategy	Yes
a comprehensive summary of the monitoring results of the project, reported in accordance with the specifications in any conditions of this approval, or any approved plans and programs;		-
Blast Reports – 2018		Yes
Noise Monitoring Reports – 2018		Yes
Dust Monitoring Summary Results – 2018		Yes
Ground Water Monitoring Results - 2018		Yes
Surface Water Monitoring Results - 2018		Yes
Water Discharge Report - 2018		
a complaints register, updated monthly;		Yes

the annual reviews of the project;	-
Annual Environmental Monitoring Report 2011	Yes
Annual Environmental Monitoring Report 2012	Yes
Annual Environmental Monitoring Report 2013	Yes
Annual Environmental Monitoring Report 2014	Yes
Annual Environmental Monitoring Report 2015	Yes
Annual Environmental Monitoring Report 2016	Yes
Annual Environmental Monitoring Report 2017	Yes
any other matter required by the Secretary; and	-
3 Year Environmental Audit	Yes – 2013 and 2016 audits online. 2019 Audit to be uploaded once endorsed.
Truck Dispatch Times	Yes
(b) keep this information up-to-date, to the satisfaction of the Secretary.	-

Environmental Complaints Register

Information received about an Environmental Complaint shall be added to the register. These details shall then be added to a Non Conformance Report Form and actioned via the Non Conformance Procedure.

To be kept for at least 7 yrs Date & Time	Method of Complaint (phone, Face to face)	Details of Complainant	Nature of Complaint	Action taken	Reason for no action (if applicable)	NCAR Report No
16/02/09 7:20am	**Phone**	[redacted] **Phone:** [redacted] [redacted] Boorerie Creek Road, Lismore	**Upset about the noise of rock breaker**	Rock breaking activities between 9am – 3pm Mon-Fri only. Rock breaking cannot occur if wind direction is NE.		
17/02/09 7:10am	**Phone**	[redacted] **Phone:** [redacted]	**Noise from rock breaker**	Rock breaking activities between 9am – 3pm Mon-Fri only. Rock breaking cannot occur if wind direction is NE.		
5/03/09 7:05am	**Phone**	[redacted] [redacted] Boorerie Creek Road, Lismore	**Reverse buzzer on machine used between 6am & 7am**	Reverse buzzer to be disconnected prior to 7am and flashing will be installed		
1/05/09 7:45am	**Phone**	[redacted] **Phone:** [redacted] [redacted] Boorerie Creek Road, Lismore	**Smell of diesel fumes is causing headaches**	Production Supervisor checked diesel tanks for any leaks – Nothing detected		

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16/03/10 7:05am	**Phone**	[redacted] **Phone:** [redacted] [redacted] Boorerie Creek Road, Lismore	**Banging noise with hammer?**	Asphalt Plant Manager reminded staff no noise before 7am Adam was contacted via mobile informing him of the action taken		
3/05/10 6:20am	**Phone**	[redacted] **Phone:** [redacted] [redacted] Boorerie Creek Road, Lismore	**Humming noise coming form the quarry – Lime tanker was unloading at the time at the Asphalt Plant**	Lime tankers will not be unloading before 7:00am Murray & Graham~~e~~ will be having a meeting with [redacted] concerning the asphalt plant operations before 7:00 am		
20/07/10	**Phone**	[redacted] [redacted]	**Waste Asphalt leaching oil (Diesel) near creek**	Metal dust sent to location to contain the leeching. Suspect areas to be removed & replaced with asphalt. Site visit by Manager to assess. LCC environmental Informed.		
23/9/11	**Phone (via EPA)**	[redacted] **– EPA** P[redacted]@environment.nsw.gov.au	**Machinery noise 5.55am**	All staff and contractors to be reminded of DA hours of operation. After investigation, no source of noise was able to be identified.		

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28/11/11	**Phone (via EPA)**	[redacted] – EPA [redacted]@environment.nsw.gov.au	**Machinery noise 5.50am**	Investigate source of noise and remind all staff & contractors of DA hours of operation. After investigation, no source of noise was able to be identified		
2/7/12 overnight	**Phone**	[redacted] Nimbin Rd, Blakebrook [redacted]	**Bitumen tanker delivering for SAS parked at NRQA gate over night leaving his burners on, creating noise**	Asphalt plant manager visited [redacted] to apologise for the disturbance and assure him that it wouldn't happen again, as SAS will no longer be located at NRQA site.		
31/08/12	**Phone**	[redacted] via Council call centre	**Called to notify us that the blast taken at approx 10.00am caused a tremor felt in the house similar to that experienced when lightning strikes in close proximity. Caused windows to rattle.**	Explained that the cause may have been due to cloud cover not allowing pressure wave to dissipate vertically as the weather was overcast forcing the concussion to dissipate laterally. She and her husband would like to have a look around the quarry at some stage if possible; discussed with [redacted] and will try [redacted] LZ	**Over pressure sensor readings returned all within parameter.**	

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19/6/15	**Phone**	**Phone call received from [redacted]h - EPA saying there was a noise complaint from an anonymous neighbour**	**Night work being conducted for RMS road works (Clunes). Anonymous neighbor phoned EPA reporting noise after hours.**	Copy of LCC DA sent to EPA noting Point 8, identifying our right to work during this time		
15/4/16	**Phone**	**Anonymous neighbor**	**Asphalt night works disturbing them (noise)**	Caller did not wish to identify themselves or lodge a formal complaint.		
18/4/16	**Phone**	**Anonymous neighbor**	**Asphalt night works disturbing them (noise)**	Caller did not wish to identify themselves or lodge a formal complaint.		
19/04/2016- 30/04/2016				Nil - No complaints received		
1/05/2016-31/05/2016				Nil- No Complaints received		
1/06/2016- 30/06/2016				Nil- No Complaints received		
1/07/2016 31/07/2016				Nil- No Complaints received		
1/08/2016 – 31/08/2016				Nil - No complaints received		
1/09/2016-30/09/2016				Nil- No complaints received		
01/10/2016-31/10/2016				Nil- No Complaints received		

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01/11/2016 30/11/2016				Nil – No Complaints received		
01/12/2016- 31/12/2016				Nil – No complaints received		
01/01/2017 31/01/2017				**Nil – No Complaints received**		
1/02/2017 28/02/2017				**Nil – No Complaints received**		
1/03/2017 31/10/2017				**Nil – No Complaints received**		
01/04/2017 30/04/2017				**Nil – No Complaints received**		
01/05/2017 31/05/2017				Nil- No Complaints received		
01/06/2017 30/06/2017				Nil- No Complaints received		
01/07/2017 31/07/2017				Nil- No Complaints received		
01/08/2017 31/08/2017				Nil - No complaints received		
01/09/2017 30/09/2017				Nil- No complaints received		
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01/11/2017 30/11/2017				Nil- No Complaints received		
01/12/2017 31/12/2017				Nil- No Complaints received		

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01/01/2018 31/01/2018				Nil – No Complaints received		
01/02/2018 28/02/2018				Nil – No Complaints received		
01/03/2018 31/10/2018				Nil – No Complaints received		
01/04/2018 30/04/2018				Nil – No Complaints received		
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01/07/2018 31/07/2018				Nil- No Complaints received		
01/08/2018 31/08/2018				Nil - No complaints received		
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