



Ref: L33818/BH/15-041

9 October 2018

Quarry Solutions Pty Ltd
c/- Groundwork Plus
6 Mayneview Street
MILTON QLD 4064

Attention: Mr Jim Lawler

Dear Jim

Re: September 2018 Noise Compliance Monitoring – Coraki Quarry, Coraki

MWA Environmental conducted noise compliance monitoring for the Coraki Quarry in September 2018 in accordance with Condition 5(c) of the Development Consent Schedule 3.

Quarry Solutions Pty Ltd has advised that no noise complaints have been received in relation to the Coraki Quarry between the previous June 2018 noise monitoring event.

Noise monitoring was undertaken between 8:00am and 1:00pm on 27 September 2018. In response to the June 2018 compliance noise monitoring outcomes Quarry Solutions Pty Ltd implemented a policy to not operate the main crushing and screening plant until 8:00am until the risk of seasonal early morning temperature inversion conditions coinciding with light winds from westerly sector is reduced.

Weather conditions were acceptable for noise monitoring with no rainfall and wind speeds below the 3 metres per second threshold for valid compliance monitoring in accordance with the Development Consent. During the early morning period there was cloud cover, high humidity and relatively stable atmospheric conditions. Winds during this period were generally 1 to 2 metres per second and from southwesterly and westerly directions. During the late morning and early afternoon wind directions shifted to the southerly sector and then the easterly sector, with wind speeds generally remaining below 2 metres per second.

For certain locations/measurements, extraneous noise influences included:

- Bird calls – significant influence for many of the measurements but able to be substantially but not completely filtered out through post-processing using audio recordings
- Public road traffic noise - filtered out through on-site data exclusion where practical however background noise from Casino-Coraki Road and Lagoon was relatively consistent during a limited number of measurements

Coraki Quarry operations during the noise monitoring period were as follows:

- Main crushing and screening plant (commenced at 8:00am)
- Loading dump trucks by excavator and haulage from pit to plant
- Stockpile management
- Loading and dispatch of product (road) trucks – consistent trucks throughout the monitoring period
- Rock drill

Noise monitoring was undertaken over generally 10 minute periods at free-field locations within 30 metres of the following six (6) residential dwellings nearest to the Coraki Quarry (refer **Figure 1**):

- R1
- R2
- R3
- R4
- R6
- R7

Noise monitoring was undertaken using a Bruel & Kjaer Type 2250 frequency analysing sound level meter. The sound level meter was calibrated to a reference signal of 94 dB at 1kHz prior to the monitoring and displayed no variance post-monitoring.

Condition 4 of the Development Consent Schedule 3 prescribes a 35 dB(A) $L_{Aeq,15min}$ noise limit for privately owned residences unless formal written agreements are in place with landowners.

As allowed for by Development Consent Schedule 3 Condition 4 and EPL Condition L4.2, formal written agreements are in place with the following landowners to the effect that the land owners do not hold objections to the operation of the Coraki Quarry exceeding the noise emission criterion by up to 5 dB(A):

- R1: 200 Lagoon Road, Coraki
- R2: 95 Spring Hill Road, Coraki
- R3: 75 Spring Hill Road, Coraki
- R6: 1905 Casino-Coraki Road, Coraki
- R7: 140 Newmans Road, Coraki

A summary of the 27 September 2018 compliance noise monitoring is provided in **Attachment 1**.

The Coraki Quarry was assessed to be compliant with the Development Consent and Environment Protection Licence No. 3397 noise limits for all but one noise measurement during the 27 September 2018 noise monitoring period.

The non-compliant measurement was at 9:10am adjacent residence R3 (refer **Figure 1**) under 1.3 to 1.8 metre per second southwesterly wind conditions. The assessed exceedance was 4.5 dB(A) for this measurement, with the main crushing and screening plant being the dominant quarry noise influence. A second noise measurement adjacent residence R3 later in the morning was assessed as compliant with the noise limit.

Further noise compliance monitoring is required by 30 December 2018 in accordance with Condition 5(c) of the Development Consent Schedule 3.

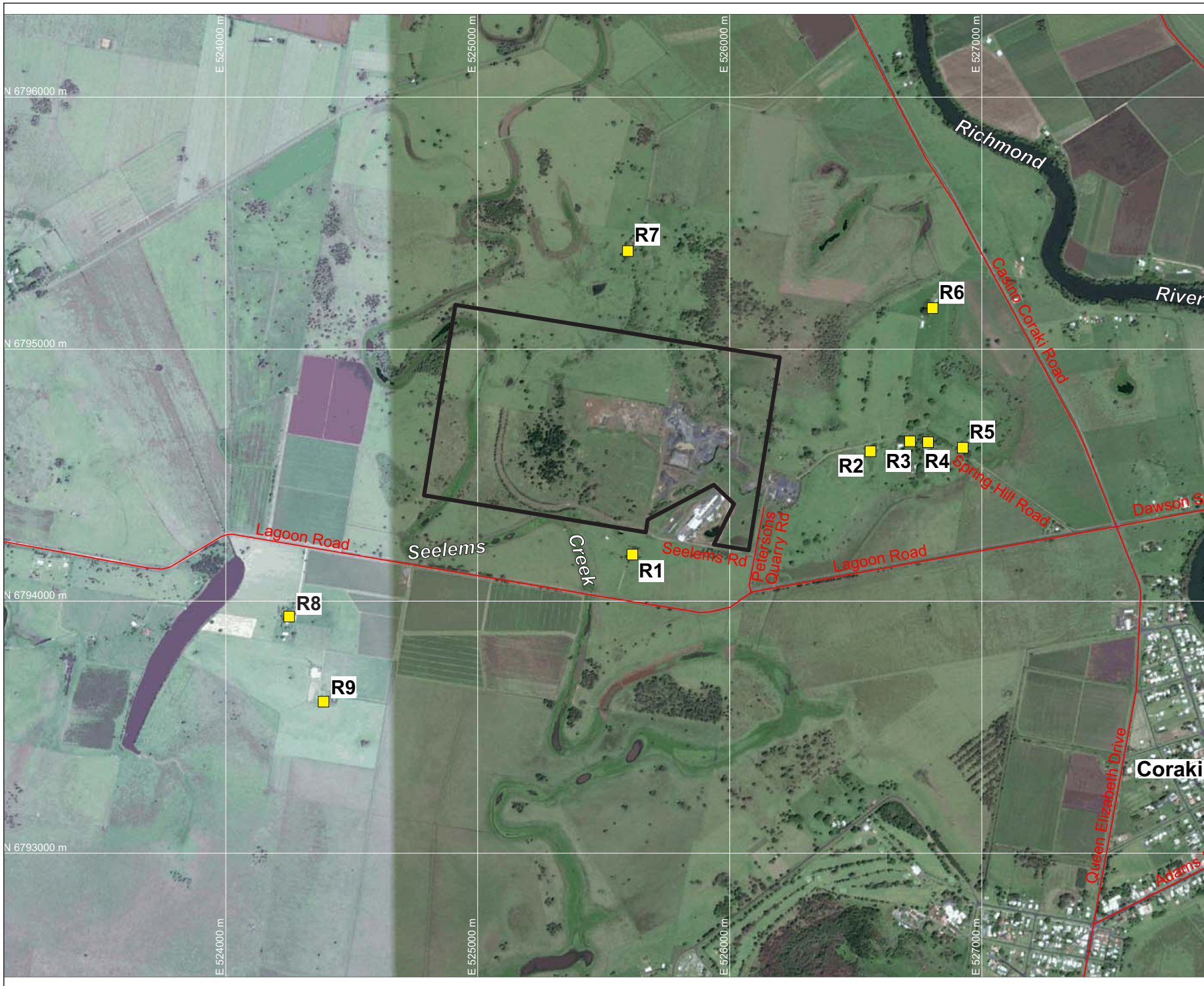
If you require any clarification or additional information please contact the undersigned.

Yours sincerely



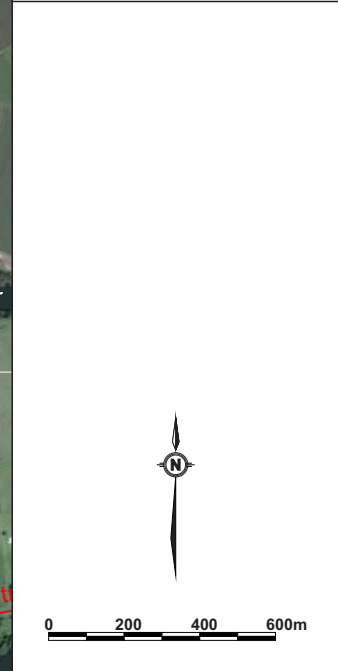
Ben Hyde
Environmental Engineer

FIGURES



LEGEND
 — SITE BOUNDARY
 ■ R9 SURROUNDING RESIDENCES (R1-R9)

DRAWING REFERENCE
 GROUNDWATER PLUS SITE LOCATION PLAN
 1837.DRG.002, 13/04/15.



CLIENT
QUARRY SOLUTIONS PTY LTD

PROJECT
**CORAKI
 NOISE COMPLIANCE
 ASSESSMENT
 CORAKI QUARRY**
 Petersons Quarry Rd Coraki NSW

TITLE
**AERIAL PHOTOGRAPH
 SHOWING SURROUNDING
 RESIDENCES**

JOB	CORAKI	FIGURE 1
JOB NO.	15-041	
DATE	16/12/16	DRAWING NUMBER
SCALE	1:20,000 (A4)	15-041-1
REV.		

Max Winders & Associates Pty Ltd tas MWA Environmental
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ATTACHMENT 1

Summary of Compliance Noise Monitoring

MEASUREMENT #	MONITORING LOCATION	TIME	WIND	ASSESSED QUARRY NOISE Leq - dB(A)	OPERATIONS	NOISE LIMIT LAeq dB(A)	STATUS	NOTES
-	R1	1015	0.4m/s SW	Lagoon Road roadworks at property entry dominant noise, quarry inaudible adjacent R1 dwelling aside from occasional truck movement at southwestern stockpile pad		40	Compliant	generally inaudible
-		1235	1.8m/s E	Lagoon Road roadworks at property entry dominant noise, concrete panel factory and batch plant noise, quarry inaudible adjacent R1 dwelling aside from occasional truck movement at southwestern stockpile pad		40	Compliant	generally inaudible
T011	R2	855	1.8m/s W => 1.8m/s SW	40.0	Full Operation, Drilling	40	Compliant	Processing plant dominant background noise, significant birds at times, traffic mostly paused out
T016		1110	1.8m/s S => 0.9m/s S	<36	Full Operation, Drilling	40	Compliant	Processing plant <35dBA generally with occasional surge to 38dBA, significant birds, drill just audible occasionally
T012	R3	910	1.8m/s SW => 1.3m/s SW	44.5	Full Operation, Drilling	40	Non-compliant	Processing plant dominant background noise approx. 43 dBA but louder at times early in measurement, excavator scraping and tips occasionally, birds, traffic and planes mostly paused out
T017		1125	0.9m/s S	<39	Full Operation, Drilling	40	Compliant	Processing plant <40dBA generally with occasional surge to 42dBA, significant birds, drill just audible occasionally, traffic paused out mostly
T014	R4	940	1.3m/s SW	<35	Full Operation, Drilling	35	Compliant	Plant just audible <35dBA, lot of birds, traffic and planes mostly paused out
T018		1150	1.3m/s S => 1.3m/s E => 1.8m/s SE	<32	Full Operation, Drilling	35	Compliant	Quarry inaudible, birds, traffic mostly paused out but was significant noise influence
T010	R6	825	1.8m/s SW	<35	Full Operation, Drilling	40	Compliant	Lot of birds, Casino-Coraki Rd traffic, plane paused, processing plant audible when less birds, tips audible
T019		1200	1.3m/s SE => 2.2m/s E => 1.8m/s E	<32	Full Operation, Drilling	40	Compliant	Processing plant just audible but <32dBA, Casino-Coraki Rd traffic noise significant, birds, traffic paused half of time, some resident conversation noise
T009	R7	800	1.3m/s SW	<35	Full Operation, Drilling	40	Compliant	Crushing commenced, lot of birds, quarry less than 35dBA when less birds aside from occasional tip noise
T015		1045	1.3m/s WSW => 1.3m/s SSW => 0.4m/s SW	<32	Full Operation, Drilling	40	Compliant	Processing plant audible but quiet approx. 30 dBA, rock tips and dump trucks audible occasionally, significant birds, dog