



20 December 2024

Ref: 10586/10648

Daracon Quarries Pty Ltd  
PO Box 299  
WALLSEND NSW 2287

## RE: NOVEMBER 2024 ATTENDED NOISE MONITORING RESULTS – BUTTAI QUARRY

This letter report presents the results of attended noise monitoring conducted for the Buttai Quarry (BQ) on Friday 22<sup>nd</sup> of November 2024. Noise monitoring was carried out in accordance with the conditions of the BQ Noise Management Plan (NMP) as shown in extract below.

### *6.4 NOISE MANAGEMENT PLAN*

#### *6.4.1 Objectives*

- to ensure that quarry operations do not give rise to 'offensive noise';
- to minimise the impact of noise on surrounding residents;
- to meet the relevant noise criteria applicable to quarry operations as detailed in conditions of consent (under neutral conditions when measured within a radius of 30 metres):

an LA10 (15 minute) of 38dBA (daytime)

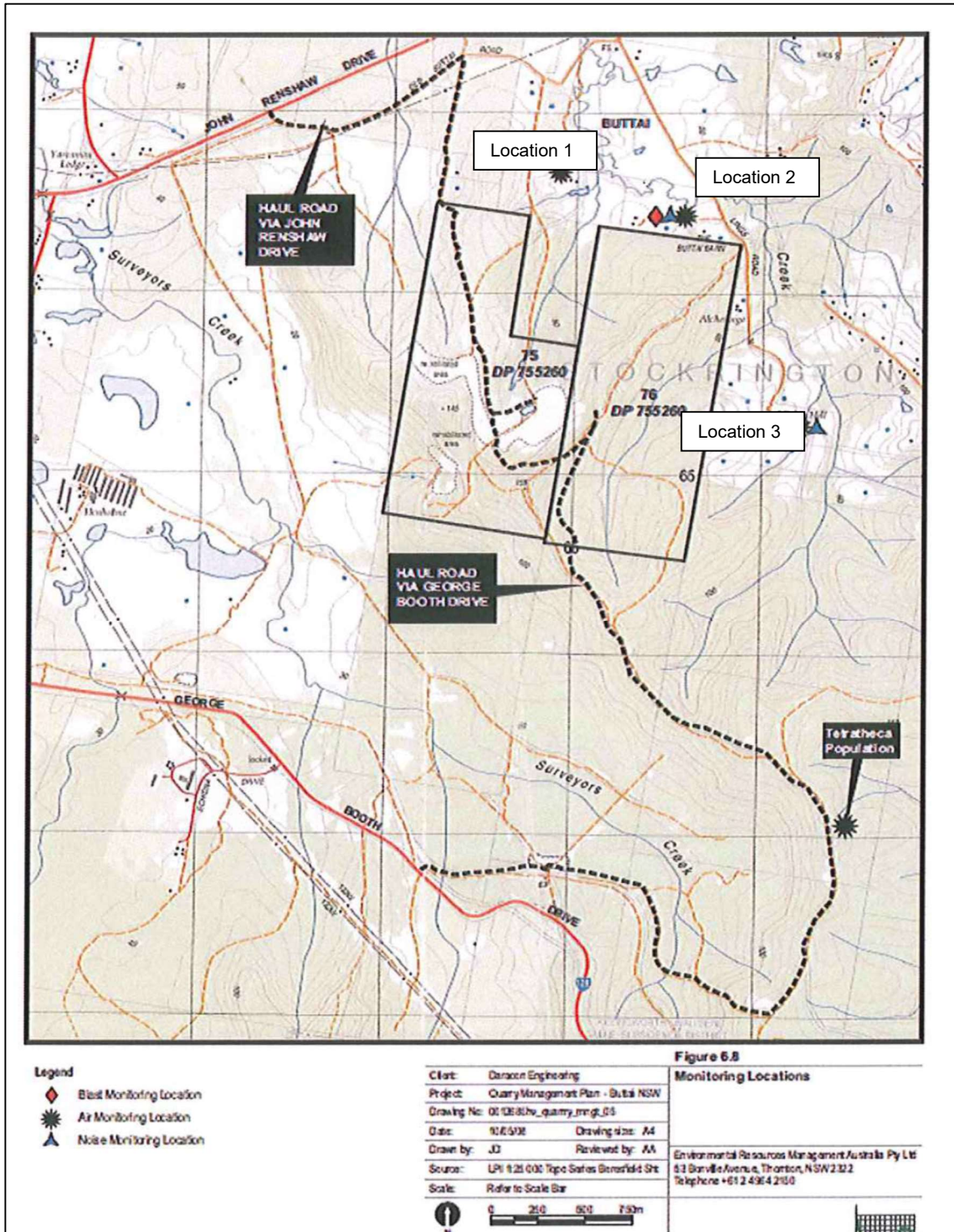
an LA10 (15 minute) of 32 dBA (night time)

noise of traffic associated with the quarry operations shall not exceed an Laeq (1 hour) of 50dBA when measured or computed at the façade of any dwelling.

## NOISE MONITORING LOCATIONS

Noise measurement locations for the attended noise survey are listed below and shown in the accompanying figure:

- Location 1: Brooks, 45 Old Buttai Road
- Location 2: Maddison (Buttai Barn), 160 Lings Road
- Location 3: Bishop, 281 Lings Road



## NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2250 Precision Sound Analyser. This instrument has Type 1 characteristics as defined in AS1259-1982 “Sound Level Meters”. Calibration of the instrument was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level. The weather throughout the survey was mild with cloudy skies. The winds were light from the northeast to east.

The following plant and equipment was working on the day that the monitoring was being undertaken;

- Impact crusher;
- Jaw crusher;
- Cone crusher;
- 2 x stackers;
- Pugmill;
- 2 x Cat 36T excavators;
- 2 x Komatsu loaders;
- Volvo loader;
- Watercart;
- Generators;
- Light vehicles;
- Construction equipment associated with the Resource Recovery Facility;
- Various truck movements;

## RESULTS

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær “Evaluator” software. The software enables the contributions of the quarry and other significant noise sources to the overall to be quantified. Noise levels were recorded for each of the L10, Leq (15 min), Lmax, L1, L90 and Lmin percentiles. As detailed in the NMP the noise criterion for BQ during the day is based on an L10 noise level.

The results shown in **Table 1**, below, represent the total 15 minute L10 noise level for all noise sources. Noise from BQ is shown in bold type. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request.

Table 1 Buttai Quarry Noise Monitoring Results – 22 November 2024				
Location	Time	dB(A) L <sub>10</sub>	Wind speed/ direction	Identified Noise Sources
1	9:20am	46	1.5 m/s NE	Birds & insects (45), traffic (39), <b>BQ inaudible (&lt;20)</b>
2	9:41am	45	2.0 m/s NE	Birds & insects (44), traffic (37), <b>BQ inaudible (&lt;20)</b>
3	10:04am	41	0.5 m/s E	Birds & insects (41), traffic (26), <b>BQ inaudible (&lt;20)</b>

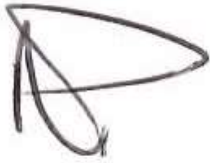


The results shown in Table 1 show that, under the operational and atmospheric conditions at the time of monitoring, noise emissions from BQ were inaudible at all monitoring locations. The operation of BQ was, therefore, in compliance with the applicable noise conditions detailed in the NMP.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

**SPECTRUM ACOUSTICS PTY LIMITED**



**Neil Pennington MAIP, MAAS, MASA**  
*B. Sc., B.Math. (Hons)*  
Principal / Director



9 September 2024

Ref: 10586/10489

Daracon Quarries Pty Ltd  
PO Box 299  
WALLSEND NSW 2287

## RE: AUGUST 2024 ATTENDED NOISE MONITORING RESULTS – BUTTAI QUARRY

This letter report presents the results of attended noise monitoring conducted for the Buttai Quarry (BQ) on Tuesday 20<sup>th</sup> of August 2024. Noise monitoring was carried out in accordance with the conditions of the BQ Noise Management Plan (NMP) as shown in extract below.

### *6.4 NOISE MANAGEMENT PLAN*

#### *6.4.1 Objectives*

- to ensure that quarry operations do not give rise to 'offensive noise';
- to minimise the impact of noise on surrounding residents;
- to meet the relevant noise criteria applicable to quarry operations as detailed in conditions of consent (under neutral conditions when measured within a radius of 30 metres):

an LA10 (15 minute) of 38dBA (daytime)

an LA10 (15 minute) of 32 dBA (night time)

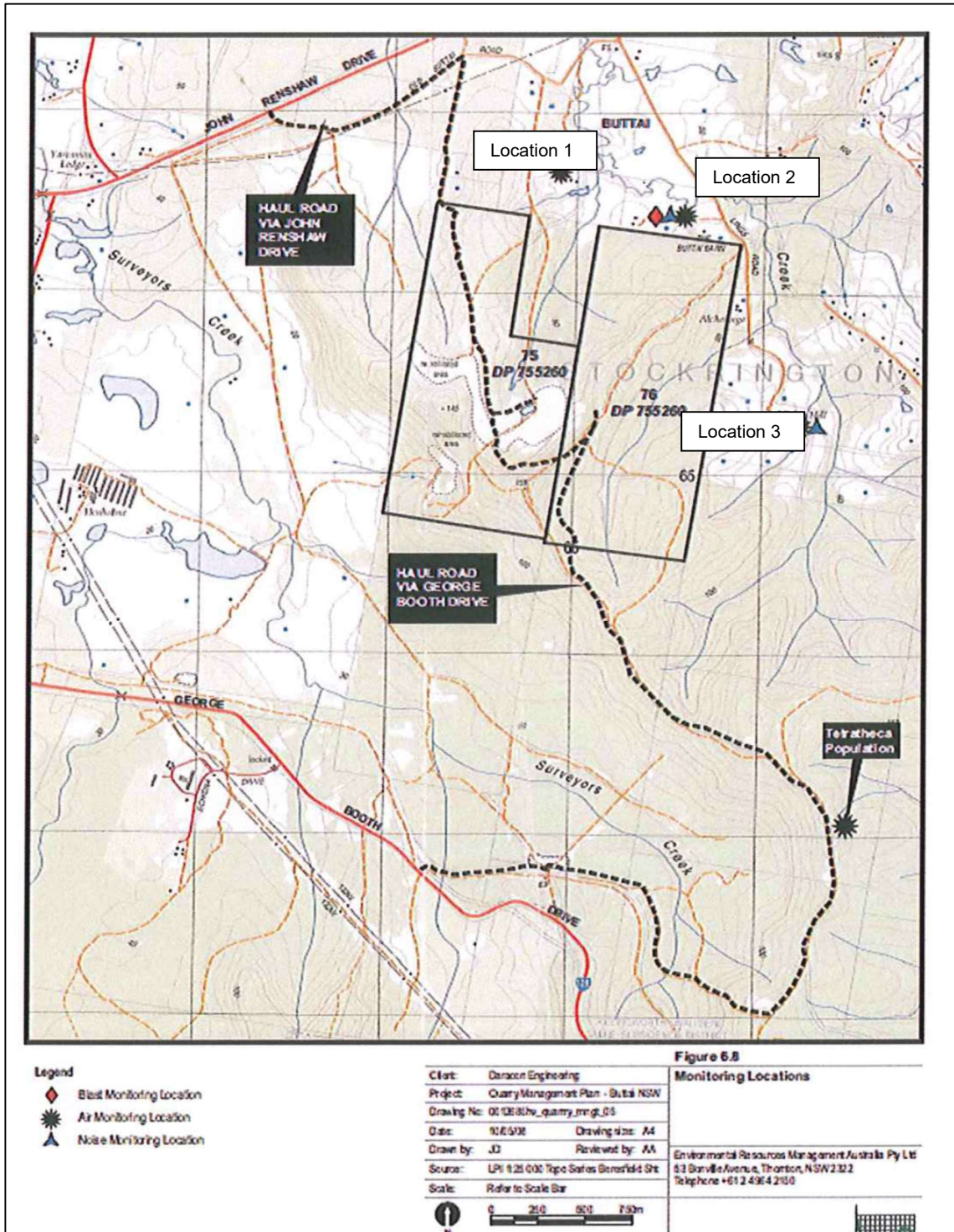
noise of traffic associated with the quarry operations shall not exceed an Laeq (1 hour) of 50dBA when measured or computed at the façade of any dwelling.



## NOISE MONITORING LOCATIONS

Noise measurement locations for the attended noise survey are listed below and shown in the accompanying figure:

- Location 1: Brooks, 45 Old Buttai Road
- Location 2: Maddison (Buttai Barn), 160 Lings Road
- Location 3: Bishop, 281 Lings Road



## NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2250 Precision Sound Analyser. This instrument has Type 1 characteristics as defined in AS1259-1982 “Sound Level Meters”. Calibration of the instrument was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level. The weather throughout the survey was mild with clear skies. The winds were light from the north to northwest.

The following plant and equipment was working on the day that the monitoring was being undertaken;

- 1 x jaw crusher
- 1 x cone crusher
- 1 x stacker
- 2 x pugmills operating for approximately 2 hours each
- 2 x Komatsu loaders
- 2 x Volvo loaders
- 1 x Caterpillar excavator
- Various truck and dog movements
- Light vehicles
- Genset for office

## RESULTS

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær “Evaluator” software. The software enables the contributions of the quarry and other significant noise sources to the overall to be quantified. Noise levels were recorded for each of the L10, Leq (15 min), Lmax, L1, L90 and Lmin percentiles. As detailed in the NMP the noise criterion for BQ during the day is based on an L10 noise level.

The results shown in **Table 1**, below, represent the total 15 minute L10 noise level for all noise sources. Noise from BQ is shown in bold type. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request.

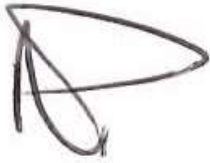
Table 1 Buttai Quarry Noise Monitoring Results –20 August 2024				
Location	Time	dB(A) L <sub>10</sub>	Wind speed/ direction	Identified Noise Sources
1	1:58pm	44	1.0 m/s W	Birds & insects (42), traffic (40), <b>BQ inaudible (&lt;20)</b>
2	2:21pm	42	0.5 m/s N	Traffic (41), birds & insects (35), <b>BQ inaudible (&lt;20)</b>
3	2:42pm	47	0.5 m/s NW	Dog (47), birds & insects (30), traffic (29), <b>BQ inaudible (&lt;20)</b>

The results shown in Table 1 show that, under the operational and atmospheric conditions at the time of monitoring, noise emissions from BQ were inaudible at all monitoring locations. The operation of BQ was, therefore, in compliance with the applicable noise conditions detailed in the NMP.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

**SPECTRUM ACOUSTICS PTY LIMITED**



**Neil Pennington MAIP, MAAS, MASA**  
*B. Sc., B.Math. (Hons)*  
Principal / Director





21 June 2024

Ref: 10586/10376

Daracon Quarries Pty Ltd  
PO Box 299  
WALLSEND NSW 2287

## RE: MAY 2024 ATTENDED NOISE MONITORING RESULTS – BUTTAI QUARRY

This letter report presents the results of attended noise monitoring conducted for the Buttai Quarry (BQ) on Thursday 30<sup>th</sup> of May 2024. Noise monitoring was carried out in accordance with the conditions of the BQ Noise Management Plan (NMP) as shown in extract below.

### *6.4 NOISE MANAGEMENT PLAN*

#### *6.4.1 Objectives*

- to ensure that quarry operations do not give rise to 'offensive noise';
- to minimise the impact of noise on surrounding residents;
- to meet the relevant noise criteria applicable to quarry operations as detailed in conditions of consent (under neutral conditions when measured within a radius of 30 metres):

an LA10 (15 minute) of 38dBA (daytime)

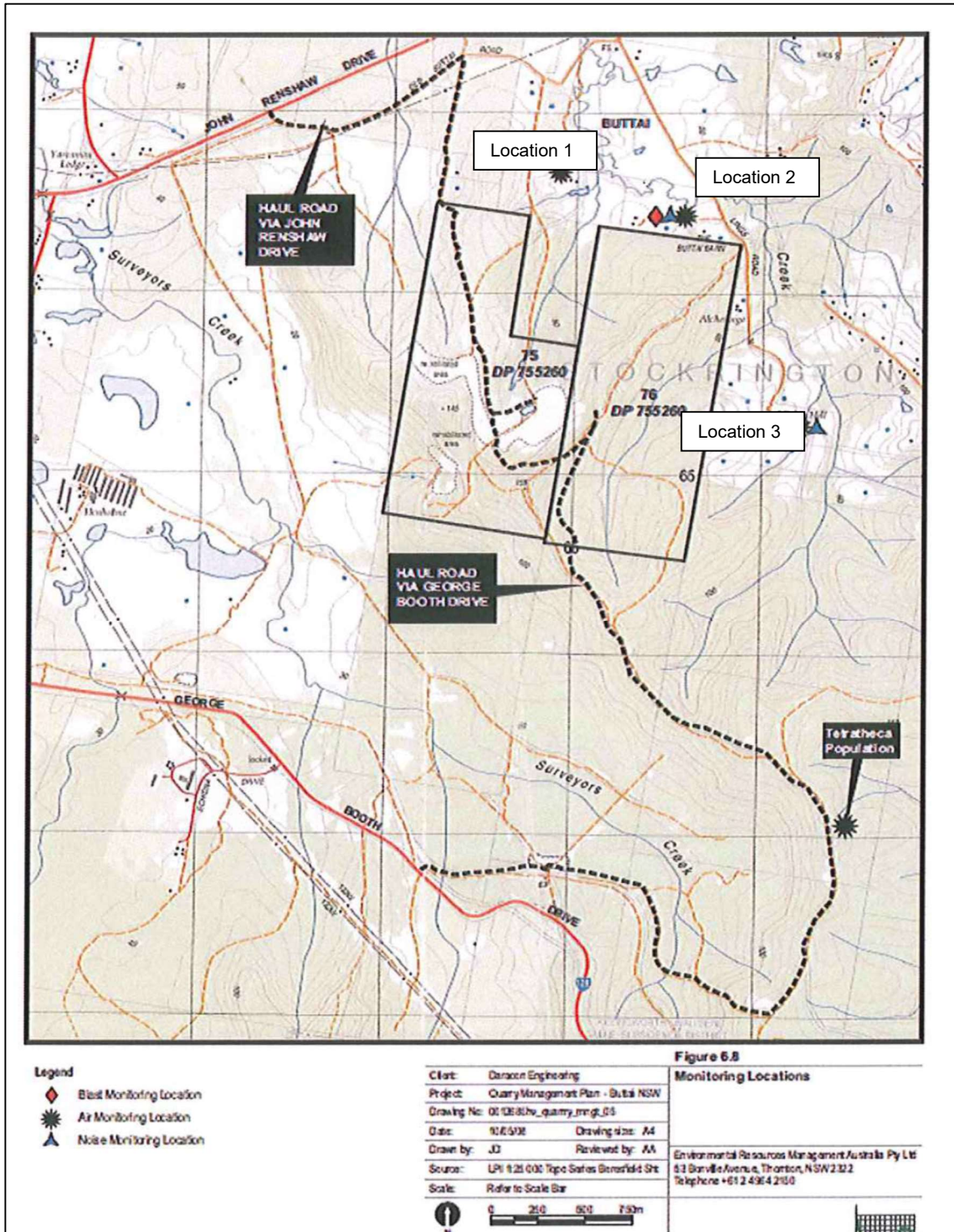
an LA10 (15 minute) of 32 dBA (night time)

noise of traffic associated with the quarry operations shall not exceed an Laeq (1 hour) of 50dBA when measured or computed at the façade of any dwelling.

## NOISE MONITORING LOCATIONS

Noise measurement locations for the attended noise survey are listed below and shown in the accompanying figure:

- Location 1: Brooks, 45 Old Buttai Road
- Location 2: Maddison (Buttai Barn), 160 Lings Road
- Location 3: Bishop, 281 Lings Road



## NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2250 Precision Sound Analyser. This instrument has Type 1 characteristics as defined in AS1259-1982 “Sound Level Meters”. Calibration of the instrument was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level. The weather throughout the survey was mild with clear skies. The winds were light from the north to northwest.

The following plant and equipment was working on the day that the monitoring was being undertaken;

- 1 x Tricon screen
- 1 x Lincom 550 impact crusher
- 2 x stacking conveyors
- 2 x Cat 36T excavators
- 2 x Cat 980 loaders
- 1 x Komatsu WA500 loader
- Various truck and dog movements
- Small generators operating
- Light vehicle movements

## RESULTS

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær “Evaluator” software. The software enables the contributions of the quarry and other significant noise sources to the overall to be quantified. Noise levels were recorded for each of the L10, Leq (15 min), Lmax, L1, L90 and Lmin percentiles. As detailed in the NMP the noise criterion for BQ during the day is based on an L10 noise level.

The results shown in **Table 1**, below, represent the total 15 minute L10 noise level for all noise sources. Noise from BQ is shown in bold type. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request.

Table 1 Buttai Quarry Noise Monitoring Results – 30 May 2024				
Location	Time	dB(A) L <sub>10</sub>	Wind speed/ direction	Identified Noise Sources
1	12:45 pm	46	2.0 m/s NW	Birds & insects (45), traffic (38), <b>BQ inaudible (&lt;20)</b>
2	1:05 pm	42	1.0 m/s NW	Birds & insects (42), traffic (31), <b>BQ inaudible (&lt;20)</b>
3	1:20 pm	37	2.0 m/s N	Birds & insects (36), traffic (28), <b>BQ inaudible (&lt;20)</b>

The results shown in Table 1 show that, under the operational and atmospheric conditions at the time of monitoring, noise emissions from BQ were inaudible at all monitoring locations. The operation of BQ was, therefore, in compliance with the applicable noise conditions detailed in the NMP.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

**SPECTRUM ACOUSTICS PTY LIMITED**



**Neil Pennington MAIP, MAAS, MASA**  
*B. Sc., B.Math. (Hons)*  
Principal / Director





21 March 2024

Ref: 10586/10283

Daracon Quarries Pty Ltd  
PO Box 299  
WALLSEND NSW 2287

## RE: FEBRUARY 2024 ATTENDED NOISE MONITORING RESULTS – BUTTAI QUARRY

This letter report presents the results of attended noise monitoring conducted for the Buttai Quarry (BQ) on Wednesday 28<sup>th</sup> of February 2024. Noise monitoring was carried out in accordance with the conditions of the BQ Noise Management Plan (NMP) as shown in extract below.

### *6.4 NOISE MANAGEMENT PLAN*

#### *6.4.1 Objectives*

- to ensure that quarry operations do not give rise to 'offensive noise';
- to minimise the impact of noise on surrounding residents;
- to meet the relevant noise criteria applicable to quarry operations as detailed in conditions of consent (under neutral conditions when measured within a radius of 30 metres):

an LA10 (15 minute) of 38dBA (daytime)

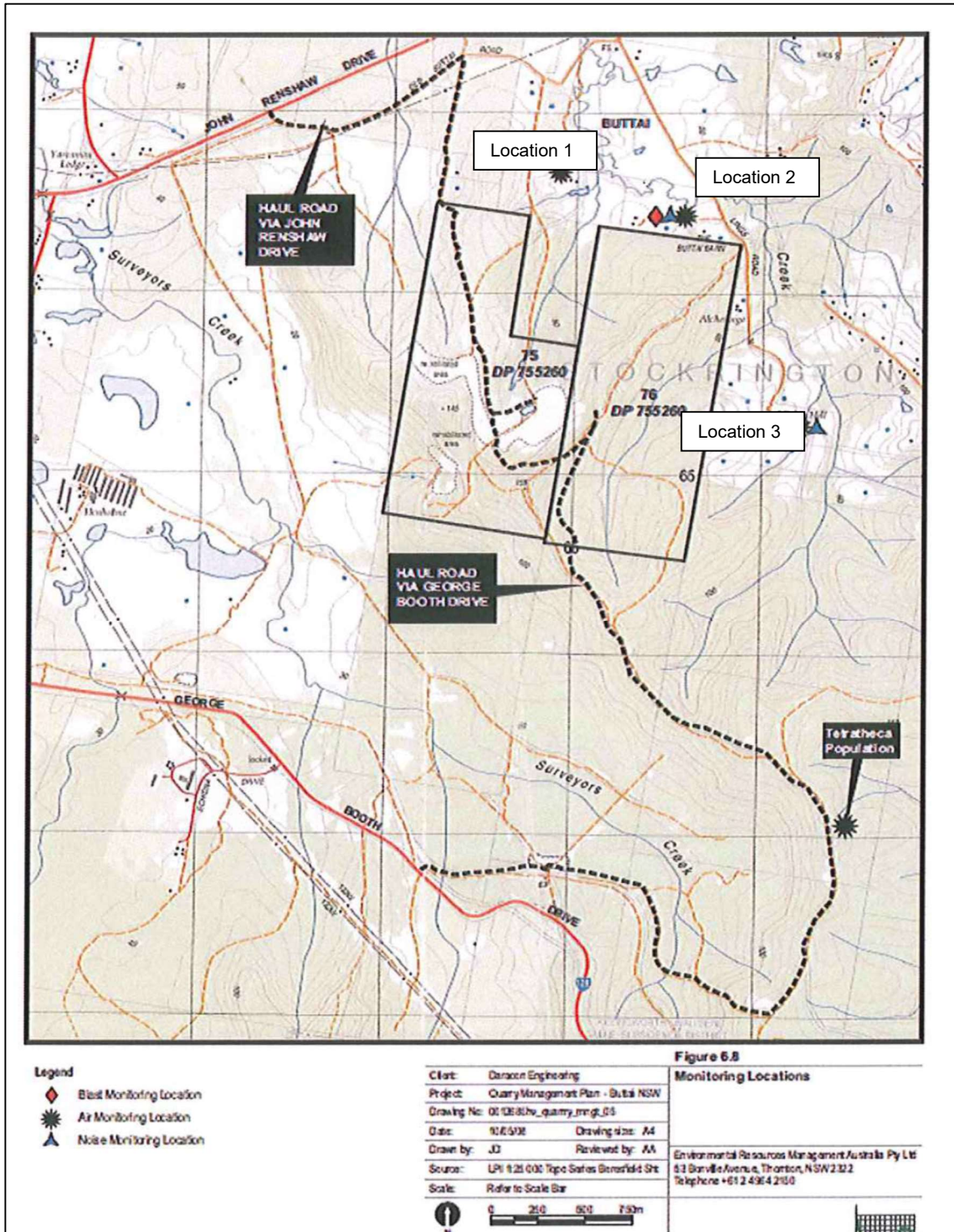
an LA10 (15 minute) of 32 dBA (night time)

noise of traffic associated with the quarry operations shall not exceed an Laeq (1 hour) of 50dBA when measured or computed at the façade of any dwelling.

## NOISE MONITORING LOCATIONS

Noise measurement locations for the attended noise survey are listed below and shown in the accompanying figure:

- Location 1: Brooks, 45 Old Buttai Road
- Location 2: Maddison (Buttai Barn), 160 Lings Road
- Location 3: Bishop, 281 Lings Road



## NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2250 Precision Sound Analyser. This instrument has Type 1 characteristics as defined in AS1259-1982 “Sound Level Meters”. Calibration of the instrument was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level. The weather throughout the survey was mild with hazy skies. The winds were light to moderate from the northeast.

The following plant and equipment was working on the day that the monitoring was being undertaken;

- 3725 volvo loader
- 3710 cat loader
- 3776 cat digger
- 3762 cat digger
- 3705 impactor
- 550 hired impactor
- 3766 stacker
- Tricon hired stacker
- MSC hired stacker
- 87 truck and dogs loaded

## RESULTS

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær “Evaluator” software. The software enables the contributions of the quarry and other significant noise sources to the overall to be quantified. Noise levels were recorded for each of the L10, Leq (15 min), Lmax, L1, L90 and Lmin percentiles. As detailed in the NMP the noise criterion for BQ during the day is based on an L10 noise level.

The results shown in **Table 1**, below, represent the total 15 minute L10 noise level for all noise sources. Noise from BQ is shown in bold type. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request.

Table 1 Buttai Quarry Noise Monitoring Results – 28 February 2024				
Location	Time	dB(A) L <sub>10</sub>	Wind speed/ direction	Identified Noise Sources
1	9:30 am	43	1.0 m/s N	Birds & insects (42), traffic (36), <b>BQ inaudible (&lt;20)</b>
2	9:50 am	40	2.0 m/s N	Birds & insects (39), traffic (34), <b>BQ inaudible (&lt;20)</b>
3	10:15 am	36	1.5 m/s E	Birds & insects (36), traffic (24), <b>BQ inaudible (&lt;20)</b>

The results shown in Table 1 show that, under the operational and atmospheric conditions at the time of monitoring, noise emissions from BQ were inaudible at all monitoring locations. The operation of BQ was, therefore, in compliance with the applicable noise conditions detailed in the NMP.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

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