13 September 2024

Ref: 08413/10498

Metromix Pty Ltd
150 Rhondda Road
Teralba NSW 2284

AUGUST 2024 NOISE MONITORING RESULTS – TERALBA QUARRY

This letter report presents the results of attended noise monitoring conducted for the Metromix operated Teralba Quarry (TQ) commencing on Monday 19th and finishing on Wednesday 21st of August 2024. Noise monitoring was carried out in accordance with the conditions of the TQ Noise Management Plan (NMP) as shown in extract on page 2 (referenced from EPL 536).

Although the project approval nominates noise criteria at nine locations, EPL 536 nominates only five locations for noise monitoring. Metromix recognises that meaningful monitoring data will continue to be collected from the closest locations to the active operational areas. As a result of this, and as outlined within the approved NMP, for periods when operations are confined to areas south of Rhondda Road, noise monitoring will be undertaken at five locations, as shown below in **Table 1**. Once development of the Northern Extension is commenced, the noise monitoring program will be reviewed and updated to reflect compliance at residences likely to experience noise from that extraction location.

Table 1 lists the address and coordinates of each noise monitoring location detailed in EPL 536. The locations are shown on the figure in **Appendix I**.

Table 1
Noise Monitoring Locations (from EPL 536)

Monitoring Location	EPL Point	Location Description
Noise Monitor A	12	22 Awaba Street, Teralba
Noise Monitor B[1]	13	153 Railway Street, Teralba
Noise Monitor D	15	26 Rhondda Road, Teralba
Noise Monitor E	16	57 Victoria Avenue, Teralba
Noise Monitor H	18	52 School Road, Wakefield

1. See text in relation to changes to monitoring location

The 'EPL Point' nomenclature detailed in Table 1 will be used throughout this report.

It is noted that during the period when monitoring is undertaken at EPL Point 13, Metromix is required to provide a spotter to record the number of trucks departing from the Quarry and not the Teralba Business Park. Spectrum Acoustics personnel undertook identification of quarry trucks as part of the noise monitoring procedure.

As part of pre monitoring protocols Spectrum Acoustics notified, by letterbox drop, all landowners in the close vicinity of each site of the impending monitoring. The resident at EPL Point 13 has previously told Metromix that they didn't want monitoring to be undertaken near their residence so monitoring was undertaken at a point approximately 30m south (as shown in Appendix I).

The following presents noise related conditions of EPL 536 relevant to the compliance noise monitoring programme.

<table>
<tr><th>Condition</th><th>Requirement</th></tr>
<tr><td>L5.2</td><td>Noise generated at the premises that is measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2.
POINT 12
<table>
<tr><th>Time period</th><th>Measurement parameter</th><th>Measurement frequency</th><th>Noise level dB(A)</th></tr>
<tr><td>Day-Shoulder</td><td>Day Shoulder-LAeq (15 minute)</td><td>-</td><td>38</td></tr>
<tr><td>Day</td><td>Day-LAeq (15 minute)</td><td>-</td><td>38</td></tr>
<tr><td>Evening</td><td>Evening-LAeq (15 minute)</td><td>-</td><td>37</td></tr>
</table>
POINT 12,13,15,16,18
<table>
<tr><th>Time period</th><th>Measurement parameter</th><th>Measurement frequency</th><th>Noise level dB(A)</th></tr>
<tr><td>Night</td><td>Night-LAeq (15 minute)</td><td>-</td><td>35</td></tr>
<tr><td>Night</td><td>Night-LA1 (1 minute)</td><td>-</td><td>45</td></tr>
</table>
POINT 13
<table>
<tr><th>Time period</th><th>Measurement parameter</th><th>Measurement frequency</th><th>Noise level dB(A)</th></tr>
<tr><td>Day</td><td>Day-LAeq (15 minute)</td><td>-</td><td>46</td></tr>
<tr><td>Evening</td><td>Evening-LAeq (15 minute)</td><td>-</td><td>36</td></tr>
<tr><td>Day-Shoulder</td><td>Day Shoulder-LAeq (15 minute)</td><td>-</td><td>42</td></tr>
</table>
POINT 15,16,18
<table>
<tr><th>Time period</th><th>Measurement parameter</th><th>Measurement frequency</th><th>Noise level dB(A)</th></tr>
<tr><td>All hours</td><td>LAeq (15 minute)</td><td>-</td><td>35</td></tr>
</table>
Note: The licensee may provide to the EPA written evidence of any agreement with a landholder which is subject to the above noise limits. The written evidence may be submitted with a licence variation to remove the noise monitoring requirements at the point associated with the landholder. The EPA may reinstate noise monitoring requirements to assess compliance with noise limits if noise complaints are received or at the landholder's request.</td></tr>
</table>

L5.3	For the purposes of Condition L5.2: a) Day-Shoulder is defined as the period between 6am to 7am Monday to Saturday. b) Day is defined as: a. the period from 7am to 6pm Monday to Saturday; and b. the period from 8am to 6pm Sundays and Public Holidays. c) Evening is defined as the period from 6pm to 10pm. d) Night is defined as: a. the period from 10pm to 7am Monday to Saturday; and b. the period from 10pm to 8am Sundays and Public Holidays.
L5.4	The contributed noise level from the premises must not exceed the noise limits specified within this licence at the most noise-affected point on or within the boundary of any residential premises to the north and/or south of the premises, except as expressly provided by this licence, or by the EPA in writing.
L5.5	The noise limits set out in conditions L5.2 apply under all meteorological conditions except for anyone of the following: a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or b) Stability category F temperature inversion conditions and wind speeds greater the 2 metres/second at 10 metres above ground level; or c) Stability category G temperature inversion conditions.
L5.6	For the purpose of condition L5.5: a) the meteorological data to be used for determining meteorological conditions is the data recorded at the meteorological station identified in this licence as EPA Identification Point W1. b) Stability category temperature inversion conditions are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the *NSW Noise Policy for Industry (2017)* Note: The weather station must be designed, commissioned and operated in a manner to obtain the necessary parameters required under the above condition.
L5.7	To determine compliance: 1. With the $L_{Aeq(15\ min)}$ noise limits in condition L5.2, the licensee must locate noise monitoring equipment; a) approximately on the boundary, where any dwelling is situated 30 metres or less from the property boundary that is closest to the premises; or, b) within 30 metres of a dwelling facade (but not closer than 3 metres) where any dwelling on the property is situated more than 30 metres from the property boundary that is closest to the premises; or where applicable c) within approximately 50 metres if the boundary of a national park or nature reserve. 2. With the LA1(1 minute) noise limits in condition L5.2, the noise monitoring equipment must be located within 1 metre of a dwelling facade. 3. With the noise limits in condition L5.2, the noise monitoring equipment must be located; a) at the most affected point at a location where there is no dwelling at the location, or b) at the most affected point within an area at a location prescribed by conditions L5.7 1(a) or L5.7 1(b).
L5.8	A non-compliance will still occur where noise generated from the premises in excess of the appropriate noise limit is measured: a) at a location other than an area prescribed by the conditions of this licence, and /or b) at a point other than the most affected point at a location.
L5.9	For the purpose of determining the noise generated at the premises the licensee must use a Class 1 or Class 2 noise monitoring device as defined by AS IEC61672.1 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing.

L5.10	For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.
L7.1	The licensee must comply with the operating hours specified in Column 2, Column 3, and Column 4 of the table below:

Day	Loading and Dispatch of Quarry Trucks	Extraction and Processing	Receipt of Concrete
Monday - Friday	4:00am Monday to midnight Friday	7:00am to 7:00pm	7:00am to 5:00pm
Saturday	Midnight Friday to 6:00pm Saturday	7:00am to 2:00pm	7:00am to 2:00pm
Sundays and Public Holidays	None	none	none

Note: Maintenance activities may occur at any time provided they are inaudible at privately-owned residence.
*VENM = Virgin Excavated Natural Material
**ENM = Excavated Natural Material

M9 Noise monitoring

M9.1 To assess compliance with the noise limits specified within this licence, the licensee must undertake operator attended noise monitoring at each specified noise monitoring point in accordance with the table below.

POINT 12,13,15,16,18

Assessment period	Minimum frequency in a reporting period	Minimum duration within assessment period	Minimum number of assessment period
Day	Yearly	1.5 hours	3 consecutive operation days
Evening	Yearly	30 minutes	3 consecutive operation days
Night	Yearly	1 hour	3 consecutive operation days

M9.2 The licensee must undertake the operator attended noise monitoring at each one of or at one or more noise monitoring points that is representative of the worse-case location(s) listed in this licence.

NOISE MEASUREMENTS

Attended noise monitoring was conducted with Brüel & Kjær Type 2250 Precision Sound Analysers. These instruments have Type 1 characteristics as defined in AS1259-1982 “Sound Level Meters” and have current NATA calibration. Field calibration of each instrument was carried out at the start and end of each monitoring period.

The noise monitoring was conducted in general accordance with the requirements of Section 10 of the NMP (Noise Monitoring Protocol and Evaluation of Compliance) as follows;

“*Metromix proposes to adopt a noise monitoring protocol that provides feedback on the effectiveness of the noise control measures and demonstrate compliance with the conditions within the Project Approval 10_0183 and Environment Protection Licence 0536.*

The approach to monitoring compliance is based substantially upon Metromix's experience to date which has identified the on-site activities have not been the source of noise complaints or any recorded non-compliance. Hence, it is considered the monitoring program needs to reflect this fact."

A-weighted noise levels were measured over 15 minute monitoring periods with data acquired at 1 second statistical intervals and the meter set to "fast" response. Each 1 second measurement is accompanied by a third-octave band spectrum from 20 - 20k Hz which is required for analysing NPI 'modifying factors'. Time based field notes allow for determination of the relative contributions to the overall noise level of all significant noise sources.

The worst case 15 minute Leq noise level for each monitoring period is shown in the tables below. Where the noise from TQ was audible, Bruel & Kjaer "*Evaluator*" analysis software was used to quantify the contributions of the quarry and other significant noise sources to the overall level.

Quarry noise from TQ is shown in the tables in bold type. Where noise from TQ is listed as faintly audible, this means the noise levels from the quarry were at least 10 dB below the ambient level during the measurement and not measurable.

Noise levels were recorded for each of the L10, Leq, Lmax, L1, L90 and Lmin percentiles. All noise levels shown in the tables of results are in dB(A) Leq (15 min). Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request. Meteorological data used in this report was obtained from the quarry-operated weather station at the site. The wind speeds and directions shown in the tables of results are the arithmetic average of the five-minute measurement periods throughout the entire noise monitoring period at each site.

Noise Compliance Assessment

The results of the noise measurements undertaken throughout the various time periods are provided in **Tables 2** to **16**. EPL 536 refers to the various time periods as follows:

a) Day-Shoulder is defined as the period between 6am to 7am Monday to Saturday.

b) Day is defined as:
   (i) the period from 7am to 6pm Monday to Saturday; and
   (ii) the period from 8am to 6pm Sundays and Public Holidays.

c) Evening is defined as the period from 6pm to 10pm.

d) Night is defined as:
   (i) the period from 10pm to 7am Monday to Saturday; and
   (ii) the period from 10pm to 8am Sundays and Public Holidays.

Table 2 Teralba Quarry Noise Monitoring Results – 19 August 2024 (Night)					
EPL Point	**Start Time**	**Total noise dB(A) Leq**	**Criterion dB(A) Leq**	**Wind speed (m/s) / direction**	**Identified Noise Sources (Leq (15 min))**
12	5:35 am	51	35	0.7 / 239	Birds (49), traffic (47), **TQ inaudible**
13	4:30 am	60	35	1.1 / 255	Traffic (58), trains (56), frogs (43), birds (36), **TQ inaudible**
15	4:30 am	44	35	1.1 / 255	Trains (41), traffic (41), birds (24), **TQ inaudible**
16	5:35 am	45	35	0.7 / 239	Birds (45), traffic (34), **TQ inaudible**
18	5:00 am	51	35	1.0 / 248	Birds (48), traffic (46), frogs (43), **TQ inaudible**
Note: 1 Trucks on access road					

Table 3 Teralba Quarry Noise Monitoring Results – 19 August 2024 (Day Shoulder)					
EPL Point	**Start Time**	**Total noise dB(A) Leq**	**Criterion dB(A) Leq**	**Wind speed (m/s) / direction**	**Identified Noise Sources (Leq (15 min))**
12	6:35 am	55	38	0.6 / 249	Trains (52), birds (50), traffic (48), **TQ inaudible**
13	6:25 am	63	42	0.5 / 241	Traffic (63), birds (41), industrial (24), **TQ inaudible**
15	6:45 am	57	35	0.8 / 260	Traffic (57), birds (36), **TQ inaudible**
16	6:35 am	43	35	0.6 / 249	Birds (42), insects (35), traffic (34), **TQ inaudible**
18	6:00 am	54	35	0.4 / 228	Birds (54), traffic (43), **TQ inaudible**

Table 4 Teralba Quarry Noise Monitoring Results – 19 August 2024 (Day)					
EPL Point	**Start Time**	**Total noise dB(A) Leq**	**Criterion dB(A) Leq**	**Wind speed (m/s) / direction**	**Identified Noise Sources (Leq (15 min))**
12	7:00 am	52	38	0.5 / 227	Birds (51), traffic (45), **TQ inaudible**
13	8:35 am	55	46	1.3 / 210	Trains (53), traffic (50), birds (40), insects (34), **TQ inaudible**
15	8:50 am	48	35	1.4 / 214	Traffic (48), birds (36), **TQ (31)**
16	7:00 am	46	35	0.5 / 227	Birds (44), traffic (40), birds (36), **TQ inaudible**
18	10:30 am	54	35	1.0 / 141	Birds (54), traffic (38), **TQ inaudible**

Table 5 Teralba Quarry Noise Monitoring Results – 19 August 2024 (Evening)					
EPL Point	**Start Time**	**Total noise dB(A) Leq**	**Criterion dB(A) Leq**	**Wind speed (m/s) / direction**	**Identified Noise Sources (Leq (15 min))**
12	6:00 pm	48	37	1.0 / 114	Frogs (47), traffic (41), trains (36), **TQ inaudible**
13	7:15 pm	51	36	0.7 / 287	Trains (50), traffic (43), frogs (38), **TQ inaudible**
15	7:50 pm	48	35	0.5 / 198	Traffic (48), insects (35), **TQ inaudible**
16	6:40 pm	53	35	0.3 / 152	Traffic (53), frogs (38), **TQ inaudible**
18	8:35 pm	42	35	0.4 / 302	Traffic (41), frogs (35), **TQ inaudible**

Table 6 Teralba Quarry Noise Monitoring Results – 20 August 2024 (Night)					
EPL Point	**Start Time**	**Total noise dB(A) Leq**	**Criterion dB(A) Leq**	**Wind speed (m/s) / direction**	**Identified Noise Sources (Leq (15 min))**
12	5:35 am	50	35	1.5 / 242	Birds (49), traffic (44), **TQ inaudible**
13	4:30 am	53	35	0.8 / 048	Traffic (51), trains (49), frogs (26), **TQ inaudible**
15	4:30 am	43	35	0.8 / 048	Traffic (43), birds (24), **TQ inaudible**
16	5:35 am	55	35	1.5 / 242	Traffic (55), birds (40), **TQ inaudible**
18	5:00 am	44	35	1.0 / 119	Traffic (43), birds (35), **TQ inaudible**
Note: 1 Trucks on access road					

Table 7 Teralba Quarry Noise Monitoring Results – 20 August 2024 (Day Shoulder)					
EPL Point	**Start Time**	**Total noise dB(A) Leq**	**Criterion dB(A) Leq**	**Wind speed (m/s) / direction**	**Identified Noise Sources (Leq (15 min))**
12	6:35 am	52	38	2.3 / 169	Traffic (50), birds (48), **TQ inaudible**
13	6:25 am	51	42	2.2 / 099	Trains (50), traffic (43), **TQ (28)**[1]
15	6:45 am	47	35	1.9 / 251	Traffic (47), frogs (28), **TQ inaudible**
16	6:35 am	49	35	2.3 / 169	Traffic (49), birds (39), **TQ inaudible**
18	6:00 am	47	35	1.5 / 341	Traffic (46), birds (36), **TQ inaudible**
Note: 1 Trucks on access road					

Table 8 Teralba Quarry Noise Monitoring Results – 20 August 2024 (Day)					
EPL Point	**Start Time**	**Total noise dB(A) Leq**	**Criterion dB(A) Leq**	**Wind speed (m/s) / direction**	**Identified Noise Sources (Leq (15 min))**
12	7:00 am	51	38	1.6 / 083	Birds (49), traffic (45), trains (42), **TQ inaudible**
13	8:35 am	52	46	1.5 / 095	Birds (48), traffic (48), trains (45), insects (34), **TQ inaudible**
15	8:40 am	49	35	1.5 / 093	Traffic (48), birds (41), **TQ inaudible**
16	7:00 am	48	35	1.6 / 083	Birds (46), traffic (44), **TQ inaudible**
18	10:30 am	45	35	1.6 / 114	Birds (44), traffic (39), **TQ inaudible**

Table 19 Teralba Quarry Noise Monitoring Results – 20 August 2024 (Evening)					
EPL Point	**Start Time**	**Total noise dB(A) Leq**	**Criterion dB(A) Leq**	**Wind speed (m/s) / direction**	**Identified Noise Sources (Leq (15 min))**
12	6:00 pm	52	37	0.6 / 083	Frogs (50), traffic (46), trains (42), **TQ inaudible**
13	7:15 pm	53	36	1.2 / 117	Trains (52), traffic (46), frogs (34), **TQ inaudible**
15	7:50 pm	46	35	0.5 / 308	Traffic (46), insects (28), **TQ inaudible**
16	6:40 pm	52	35	1.3 / 043	Traffic (52), frogs (35), insects (22), **TQ inaudible**
18	8:35 pm	45	35	0.6 / 198	Traffic (42), dog (41), frogs (37), **TQ inaudible**

Table 10

Teralba Quarry Noise Monitoring Results – 21 August 2024 (Night)					
EPL Point	**Start Time**	**Total noise dB(A) Leq**	**Criterion dB(A) Leq**	**Wind speed (m/s) / direction**	**Identified Noise Sources (Leq (15 min))**
12	5:35 am	38	35	1.5 / 150	Traffic (37), trains (29), birds (24), **TQ inaudible**
13	4:30 am	41	35	1.7 / 064	Dog (38), traffic (36), trains (34), insects (24), **TQ inaudible**
15	4:30 am	28	35	1.7 / 064	Traffic (28), **TQ inaudible**
16	5:35 am	46	35	1.5 / 150	Birds (44), traffic (42), **TQ inaudible**
18	5:00 am	44	35	1.7 / 084	Traffic (43), birds (34), **TQ inaudible**
Notes: 1. Trucks on access road.					

Table 11 Teralba Quarry Noise Monitoring Results – 21 August 2024 (Day Shoulder)					
EPL Point	**Start Time**	**Total noise dB(A) Leq**	**Criterion dB(A) Leq**	**Wind speed (m/s) / direction**	**Identified Noise Sources (Leq (15 min))**
12	6:35 am	47	38	1.1 / 041	Insects (44), traffic (42), birds (39), **TQ inaudible**
13	6:25 am	50	42	1.2 / 139	Industrial (46), Traffic (44), trains (43), **TQ inaudible**
15	6:45 am	49	35	1.1 / 043	Traffic (49), birds (33) **TQ faintly audible**
16	6:35 am	44	35	1.1 / 041	Traffic (43), birds (35), **TQ inaudible**
18	6:00 am	47	35	1.9 / 175	Traffic (46), birds (42), **TQ inaudible**

Table 12 Teralba Quarry Noise Monitoring Results – 21 August 2024 (Day)					
EPL Point	**Start Time**	**Total noise dB(A) Leq**	**Criterion dB(A) Leq**	**Wind speed (m/s) / direction**	**Identified Noise Sources (Leq (15 min))**
12	7:00 am	50	38	1.3 / 079	Traffic (47), trains (45), birds (41), insects (39), **TQ inaudible**
13	8:35 am	50	46	2.7 / 268	Trains (47), traffic (45), birds (43), industrial (30), **TQ inaudible**
15	8:40 am	45	35	2.8 / 267	Birds (43), insects (38), traffic (37), **TQ inaudible**
16	7:00 am	47	35	1.3 / 079	Birds (44), traffic (43), insects (35), **TQ inaudible**
18	10:30 am	37	35	3.5 / 189	Traffic (36), birds (29), **TQ inaudible**

Table 13 Teralba Quarry Noise Monitoring Results – 21 August 2024 (Evening)					
EPL Point	**Start Time**	**Total noise dB(A) Leq**	**Criterion dB(A) Leq**	**Wind speed (m/s) / direction**	**Identified Noise Sources (Leq (15 min))**
12	6:00 pm	43	37	1.1 / 233	Frogs (40), traffic (40), **TQ inaudible**
13	7:15 pm	50	36	3.0 / 249	Trains (48), traffic (46), frogs (34), **TQ inaudible**
15	7:50 pm	40	35	2.2 / 233	Traffic (40), insects (26), **TQ inaudible**
16	6:40 pm	45	35	2.1 / 249	Traffic (45), frogs (33), **TQ inaudible**
18	8:35 pm	52	35	2.9 / 235	Dog (50), traffic (48), frogs (35), **TQ inaudible**

The results shown in Tables 2 to 13 show that, under the operational and atmospheric conditions at the time of monitoring, noise emissions from TQ did not exceed the relevant criterion at any monitoring location.

EPL Point 13 is situated close to the corner of Rhondda Road and Railway Street. This monitoring location is included predominantly to measure quarry noise from emissions from trucks exiting the site along the private

section of the access road (through the Teralba Business Park). From the monitoring location it was possible to determine which trucks were associated with the quarry and a dedicated spotter was not required during this monitoring period.

When measuring noise at EPL Point 13, the noise emissions from the exiting quarry trucks (whilst on the private section of the access road) was measured and the worst case 15 minute Leq noise level calculated based on the time each truck was on the private road. The worst case calculated Leq level for the trucks is that shown for EPL Point 13 in Tables 2 to 13.

At EPL Point 15 the acoustic environment is significantly influenced by noise from traffic on Rhondda Rd and birds. Noise from trains and other industries within the vicinity also contributed to the acoustic environment. Due to the intermittent scheduling of trains, noise from these could be isolated from the worst case 15 minute periods (in relation to quarry noise). Noise emissions from the batching plant which is located adjacent to TQ contributed to the received noise during some monitoring periods. Due to the relative proximity of the batch plant to the quarry it is not possible to determine the relative contributions of each to the received noise.

The NSW Industrial Noise Policy (INP) has been superseded by the Noise Policy for Industry (NPI). Transitional arrangements for the implementation of the NPI state that the INP will continue to apply where is it is referenced in existing statutory instruments except in relation to Section 4 (Modifying Factors), which will be transitioned to the NPI. Data from those times where TQ operations were audible were analysed using the *"Evaluator"* software. This analysis showed the noise did not contain any tonal, impulsive or low frequency components as per definitions of "modifying factor corrections" in Table C1 of the Noise Policy for Industry.

In addition to the operational noise, the noise from TQ must not exceed **45 dB(A) L1 (1 min)** within the night-time period i.e. between the hours of 10 pm and 7 am, in accordance with *Condition L5.2* of EPL 536. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the quarry. The compliance measurement locations are different for each of the operational and sleep disturbance noise. That is, the sleep disturbance criterion is typically applicable at 1m from the facade of a bedroom window.

To avoid undue disturbance to residents, the L1 (1 min) noise level from the operational measurements are used to show general compliance with the sleep disturbance criterion. That is, as the distance between the noise source and the operational noise monitoring location is significantly greater than the distance between the operational noise monitoring location and the sleep disturbance monitoring location (i.e. 1m from the facade of the house) there will be little variation in L1 (1 min) levels between the two monitoring locations. It must be noted, however, that the sleep disturbance criterion is to be measured near a bedroom window. As the internal layout of each residence is not known, to consider a worst case, a bedroom window is assumed to be facing the operational noise monitoring location.

The results of the sleep disturbance measurements are shown in **Tables 14** to **16**.

Table 14 Teralba Quarry (L1 (1min)) Noise Monitoring Results – 19 August 2024 (Night)					
EPL Point	**Start Time**	**dB(A) L1 (1 min)**	**Wind speed (m/s) / direction**	**L1 source**	**Identified Quarry Sources (L1 (1 min))**
12	5:35 am	63	0.7 / 239	Birds	n/a
13	4:30 am	82	1.1 / 255	Train	n/a
15	4:30 am	56	1.1 / 255	Train	n/a
16	5:35 am	60	0.7 / 239	Birds	n/a
18	5:00 am	66	1.0 / 248	Traffic	n/a

Table 15 Teralba Quarry (L1 (1min)) Noise Monitoring Results – 20 August 2024 (Night)					
EPL Point	**Start Time**	**dB(A) L1 (1 min)**	**Wind speed (m/s) / direction**	**L1 source**	**Identified Quarry Sources (L1 (1 min))**
12	5:35 am	62	1.5 / 242	Birds	n/a
13	4:30 am	69	0.8 / 048	Train	n/a
15	4:30 am	54	0.8 / 048	Traffic	n/a
16	5:35 am	84	1.5 / 242	Traffic	n/a
18	5:00 am	56	1.0 / 119	Birds	n/a

Table 16 Teralba Quarry (L1 (1min)) Noise Monitoring Results – 21 August 2024 (Night)					
EPL Point	**Start Time**	**dB(A) L1 (1 min)**	**Wind speed (m/s) / direction**	**L1 source**	**Identified Quarry Sources (L1 (1 min))**
12	5:35 am	51	1.5 / 150	Train	n/a
13	4:30 am	57	1.7 / 064	Dog	n/a
15	4:30 am	46	1.7 / 064	Traffic	n/a
16	5:35 am	69	1.5 / 150	Traffic	n/a
18	5:00 am	61	1.7 / 084	Birds	n/a

As shown in Tables 14 to 16, during the night time measurement circuits the L1 (1 min) noise from TQ did not exceed 45 dB(A) at any monitoring location.

In summary the results of the noise monitoring programme have shown that the Teralba Quarry did not exceed its noise limits at any monitoring location during the survey and as, no actions are recommended with respect to noise management at Teralba Quarry.

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

Author:

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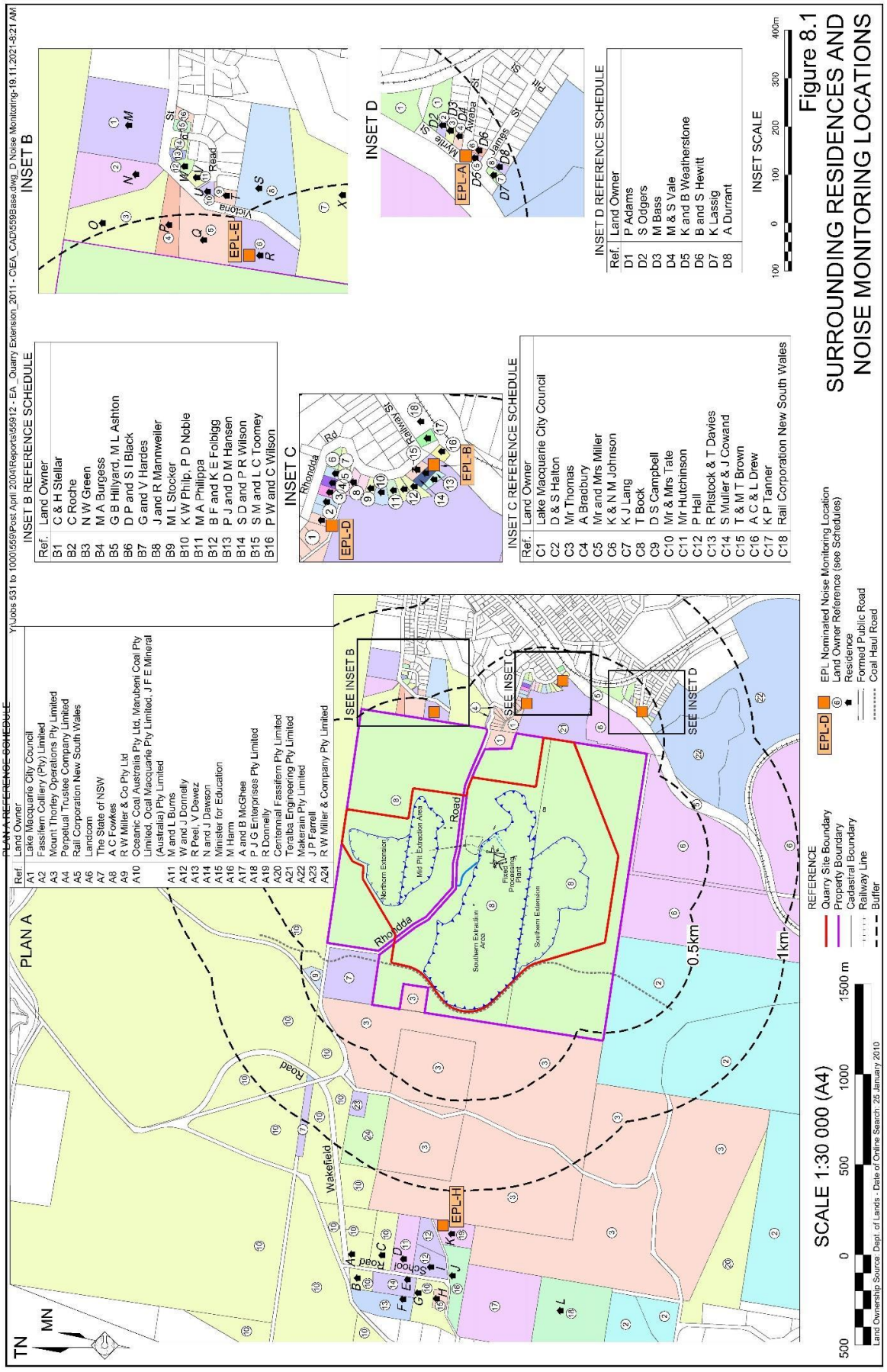

Figure 8.1
SURROUNDING RESIDENCES AND NOISE MONITORING LOCATIONS

Noise Monitor B / EPL Point 13 - Modified noise monitoring location