

# Appendix 2

## Monitoring Data and Records

(Total No. of pages including blank pages = 82)

2020-2021 Annual Return for Extractive Materials

2021 Transportation Movements

2021 Air Quality Monitoring

2021 Surface Water Monitoring

2021 Daily Rainfall Monitoring

2021 Noise Monitoring Report



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# Extractive Materials Return

## 2020-2021



Regional  
NSW

Form S1 – Period Ending 30 June 2021

Quote RIMS ID in all correspondence

Quarry Id: 1118      Rims ID: 400066	<b>Inquiries</b> please telephone: (02) 4063 6713 <b>Completed or Nil Returns</b> Email – <a href="mailto:mineral.royalty@planning.nsw.gov.au">mineral.royalty@planning.nsw.gov.au</a> Postal Address (see below)
Operators Name: METROMIX PTY LTD Address: PO BOX 1295 PARRAMATTA NSW 2124  Email: moy@metromix.com.au Quarry Name: TERALBA QUARRY Quarry Address: RHONDDA RD	<b>Please amend name, postal address and location of mine or quarry if incorrect or incomplete.</b>

The return should be completed and forwarded to **Senior Advisory Officer, RESOURCE ECONOMICS, STRATEGY, PERFORMANCE & INDUSTRY DEVELOPMENT, DEPARTMENT OF REGIONAL NSW, PO BOX 344 HUNTER REGION MAIL CENTRE NSW 2310 on or before 31 October 2021**. 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, Resources Policy

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

Typical Geology \_\_\_\_\_ CONGLOMERATE \_\_\_\_\_

Nearest Town to Quarry \_\_\_\_\_ TERALBA \_\_\_\_\_

Local Council Name \_\_\_\_\_ LAKE MACQUARIE \_\_\_\_\_

Deposited Plan and Lot Number/s of Quarry \_\_\_\_\_ LOTS 1 & 2 DP224037 \_\_\_\_\_

Email Address of Operator \_\_\_\_\_ moy@metromix.com.au \_\_\_\_\_


Name of Owner or Licensee \_\_\_\_\_ METROMIX PTY LIMITED \_\_\_\_\_

Postal Address of Licensee \_\_\_\_\_ PO BOX 1295 PARRAMATTA NSW 2124 \_\_\_\_\_

Licence/Lease Number/s (if any)  
From Mining, Exploration & Geoscience (NSW Mineral Resources) \_\_\_\_\_ N/A \_\_\_\_\_  
From Crown Lands or other NSW 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 \_\_\_\_\_

To the best of my knowledge, information entered in this return is correct and no blank spaces left where figures should have been inserted.

- SIGNATURE of PROPRIETOR or MANAGER  DATE 21/09/2021
- CONTACT PERSON for this return QUARRY MANAGER
- NAME (Block letters) MUHAMMAD YUNUSA Telephone 0423832077



# Extractive Materials Return

## 2020-2021



Regional  
NSW

Form S1 – Period Ending 30 June 2021

### Sales During 2020-2021

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
<b>Virgin Materials</b>		
<b>Crushed Coarse Aggregates</b>		
Over 75mm		
Over 30mm to 75mm		
5mm to 30mm		
Under 5mm		
Natural Sand		
Manufactured Sand		
Prepared Road Base & Sub Base		162,427
Other Unprocessed Materials		
<b>Recycled Materials</b>		
<b>Crushed Coarse Aggregates</b>		
Over 75mm		
Over 30mm to 75mm		
5mm to 30mm		
Under 5mm		
Natural Sand		
Manufactured Sand		
Prepared Road Base & Sub Base		15,372
Other Unprocessed Materials		
<b>River Gravel</b>		
Over 30mm		
5mm to 30mm		211,992
Under 5mm		
<b>Construction Sand</b>	Excluding Industrial	192,536
<b>Industrial Sand</b>		
Foundry, Moulding		
Glass		
Other (Specify)		
<b>Dimension Stone</b>	Building, Ornamental, Monumental	
Quarried in Blocks		
Quarried in Slabs		
<b>Decorative Aggregate</b>	Including Terrazzo	
<b>Loam</b>	Soil for Topdressing, Garden soil, Horticultural purposes)	
<b>TOTAL SITE PRODUCTION</b>		582,327
<b>Gross Value (\$) of all Sales</b>		\$12,580,480
<b>Type of Material</b>		CONGLOMERATE
<b>Number of Full-Time Equivalent (FTE) Employees</b>	Employees: 16	Contractors: 10

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

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY						Month:		Jan-21	
		Daily Total		Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Westwards Daily	Eastwards Daily
				6pm to 5am	5am to 6am	6am to 7am	7am to 6pm		
Limits		326		6	12	28	20	241	85
Actuals									
	1	-		-	-	-	-	-	-
	2	-		-	-	-	-	-	-
	3	-		-	-	-	-	-	-
	4	19		-	-	2	4	6	13
	5	28		-	-	6	6	17	11
	6	34		-	-	3	5	23	11
	7	38		-	-	4	7	20	18
	8	58		1	-	7	8	32	26
	9	2		-	-	-	2	1	1
	10	-		-	-	-	-	-	-
	11	71		-	-			50	21
	12	91		3	1	8	13	65	26
	13	108		2	2	7	18	86	22
	14	126		3	1	8	17	80	46
	15	92		4	-	6	13	55	37
	16	19		-	-	5	4	9	10
	17	-		-	-	-	-	-	-
	18	139		-	3	10	19	86	53
	19	99		6	1	8	18	67	32
	20	120		6	1	8	20	88	32
	21	113		6	-	9	16	83	30
	22	119		6	1	9	17	85	34
	23	30		3	-	4	8	14	16
	24	-		-	-	-	-	-	-
	25	33		1	3	3	6	20	13
	26	-		-	-	-	-	-	-
	27	141		1	-	9	19	92	49
	28	35		3	-	5	6	25	10
	29	39		5	-	6	9	20	19
	30	8		-	-	-	5	1	7
	31	-		-	-	-	-	-	-

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY				Month:		Jan-21		
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits				66	66		6	0
Actuals								
1	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	
5	-	-	-	-	-	-	-	
6	-	-	-	-	-	-	-	
7	-	-	-	-	-	-	-	
8	1	1	1	-	-	-	-	
9	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	
12	3	3	3	-	-	-	-	
13	4	4	2	-	-	-	-	
14	3	3	3	-	-	-	-	
15	4	4	4	-	-	-	-	
16	-	-	-	-	-	-	-	
17	-	-	-	-	-	-	-	
18	-	-	-	-	-	-	-	
19	6	6	6	-	-	-	-	
20	7	7	6	-	-	-	-	
21	7	7	6	-	-	-	-	
22	7	7	6	-	-	-	-	
23	6	6	3	-	-	-	-	
24	-	-	-	-	-	-	-	
25	1	1	1	-	-	-	-	
26	-	-	-	-	-	-	-	
27	2	2	1	-	-	-	-	
28	4	4	3	-	-	-	-	
29	6	6	5	-	-	-	-	
30	-	-	-	-	-	-	-	
31	-	-	-	-	-	-	-	

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY		Month:		Jan-21
		Westwards		Eastwards
		Max Hourly		Max Hourly
Limits*		12		0
Actuals				
1	-	-		
2	-	-		
3	-	-		
4	-	-		
5	-	-		
6	-	-		
7	-	-		
8	-	-		
9	-	-		
10	-	-		
11	-	-		
12	-	-		
13	1	-		
14	2	-		
15	-	-		
16	-	-		
17	-	-		
18	3	-		
19	1	-		
20	1	-		
21	-	-		
22	1	-		
23	-	-		
24	-	-		
25	3	-		
26	-	-		
27	-	-		
28	-	-		
29	-	-		
30	-	-		
31	-	-		

\* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY		Month:		Jan-21
		Westwards**		Eastwards**
		Max Hourly		Max Hourly
Limits*		28		8
Actuals				
1		-		-
2		-		-
3		-		-
4		2		-
5		4		2
6		2		1
7		2		2
8		6		1
9		-		-
10		-		-
11		9		1
12		7		1
13		7		-
14		7		1
15		4		2
16		3		2
17		-		-
18		9		1
19		8		-
20		7		1
21		7		2
22		8		1
23		-		4
24		-		-
25		2		1
26		-		-
27		8		1
28		4		1
29		4		2
30		-		-
31		-		-

\* Condition 2 (9)

\*\* Combined Maximum hourly No. of laden trucks = 28



Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY			Month:		Jan-21			
		Daily Total		Westwards			Eastwards	
			Daily	Max Hourly		Daily	Max Hourly	
Limits			305	220	20	85	8	
Actuals								
1		-	-	-	-	-		
2		-	-	-	-	-		
3		-	-	-	-	-		
4		17	4	1	13	3		
5		22	13	3	9	3		
6		31	21	5	10	3		
7		34	18	5	16	4		
8		50	25	5	25	5		
9		2	1	1	1	1		
10		-	-	-	-	-		
11		61	41	9	20	4		
12		79	54	11	25	6		
13		95	73	14	22	4		
14		114	69	11	45	7		
15		82	47	7	35	7		
16		14	6	3	8	3		
17		-	-	-	-	-		
18		126	74	12	52	8		
19		84	52	11	32	7		
20		104	73	14	31	6		
21		97	69	12	28	5		
22		102	69	11	33	6		
23		20	8	3	12	5		
24		-	-	-	-	-		
25		26	14	4	12	4		
26		-	-	-	-	-		
27		130	82	15	48	8		
28		26	17	5	9	3		
29		27	10	3	17	8		
30		8	1	1	7	5		
31		-	-	-	-	-		

\*\* PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

MONTHLY TRANSPORT TONNAGES						
TERALBA QUARRY			Number of Tonnes			
Routes		1		2		3/4.
01-January-2021		-		-		-
02-January-2021		-		-		-
03-January-2021		-		-		-
04-January-2021		117.68		112.04		167.64
05-January-2021		157.14		391.34		180.18
06-January-2021		390.08		337.04		202.70
07-January-2021		220.70		206.82		336.96
08-January-2021		484.16		281.76		392.26
09-January-2021		0.00		40.04		33.20
10-January-2021		-		-		-
11-January-2021		653.50		517.94		424.04
12-January-2021		1242.48		542.20		520.16
13-January-2021		1234.86		1165.60		469.36
14-January-2021		1182.18		666.36		737.30
15-January-2021		615.32		934.22		502.48
16-January-2021		173.46		110.78		158.04
17-January-2021		-		-		-
18-January-2021		1548.44		885.60		911.58
19-January-2021		1103.08		662.08		638.30
20-January-2021		1375.48		943.28		860.48
21-January-2021		977.22		909.28		622.28
22-January-2021		1024.60		1001.30		718.26
23-January-2021		275.20		104.22		245.50
24-January-2021		-		-		-
25-January-2021		360.66		226.98		353.14
26-January-2021		-		-		-
27-January-2021		963.72		1212.44		1023.96
28-January-2021		304.44		241.22		248.72
29-January-2021		316.94		215.86		338.82
30-January-2021		12.92		0.00		97.94
31-January-2021		-		-		-
Totals		14734.26		11708.40		10183.30

1 - Northwest  
2 - Southwest  
3 - Eastward

36625.96

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY							Month:		Feb-21	
		Daily Total		Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Max Hourly Daily		Westwards Daily	Eastwards Daily
				6pm to 5am	5am to 6am	6am to 7am	7am to 6pm			
Limits		326		6	12	28	20		241	85
Actuals										
	1	59		4	-	7	9		28	31
	2	75		5	-	10	15		46	29
	3	92		5	-	7	15		69	23
	4	146		2	1	11	20		102	44
	5	123		3	-	15	15		84	39
	6	35		3	-	3	9		19	16
	7	-		-	-	-	-		-	-
	8	114		-	4	8	19		69	45
	9	151		3	-	9	20		94	57
	10	128		3	-	8	20		80	48
	11	160		4	-	9	20		101	59
	12	134		4	-	9	18		80	54
	13	6		-	-	4	2		6	0
	14	-		-	-	-	-		-	-
	15	133		5	-	11	20		81	52
	16	52		4	-	8	8		25	27
	17	87		4	-	11	11		59	28
	18	102		4	-	7	17		66	36
	19	52		5	-	6	8		31	21
	20	2		-	-	1	1		2	0
	21	-		-	-	-	-		-	-
	22	94		5	-	7	16		49	45
	23	108		4	-	14	13		81	27
	24	90		4	-	6	13		64	26
	25	86		5	-	10	14		52	34
	26	97		4	-	9	15		57	40
	27	12		4	-	4	3		8	4
	28	-		-	-	-	-		-	-



Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY		Month:		Feb-21		
		Westwards			Eastwards	
		Max Hourly			Max Hourly	
Limits*		12			0	
Actuals						
1		-		-		
2		-		-		
3		-		-		
4		1		-		
5		-		-		
6		-		-		
7		-		-		
8		4		-		
9		-		-		
10		-		-		
11		-		-		
12		-		-		
13		-		-		
14		-		-		
15		-		-		
16		-		-		
17		-		-		
18		-		-		
19		-		-		
20		-		-		
21		-		-		
22		-		-		
23		-		-		
24		-		-		
25		-		-		
26		-		-		
27		-		-		
28		-		-		
				-		
				-		
				-		
				-		

\* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY		Month:		Feb-21	
		Westwards**		Eastwards**	
		Max Hourly		Max Hourly	
Limits*		28		8	
Actuals					
1		6		1	
2		10		-	
3		7		-	
4		8		3	
5		12		3	
6		2		1	
7		-		-	
8		6		2	
9		7		2	
10		7		1	
11		8		1	
12		6		3	
13		4		-	
14		-		-	
15		9		2	
16		6		2	
17		10		1	
18		6		1	
19		4		2	
20		1		-	
21		-		-	
22		6		1	
23		12		2	
24		6		-	
25		6		4	
26		5		4	
27		4		-	
28		-		-	

\* Condition 2 (9)

\*\* Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY			Month:		Feb-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits		305		220	20		85	8
Actuals								
1		47		17	3		30	6
2		60		31	8		29	7
3		79		56	11		23	6
4		132		91	15		41	6
5		104		68	13		36	8
6		28		13	4		15	5
7		-		-	-		-	-
8		102		59	11		43	8
9		138		83	14		55	8
10		116		69	12		47	8
11		146		88	13		58	8
12		120		69	14		51	8
13		2		2	2		-	-
14		-		-	-		-	-
15		117		67	14		50	8
16		40		15	4		25	7
17		71		44	7		27	6
18		90		55	12		35	8
19		40		21	6		19	4
20		1		1	1		-	-
21		-		-	-		-	-
22		82		38	9		44	7
23		90		65	10		25	4
24		80		54	12		26	5
25		71		41	9		30	7
26		84		48	11		36	8
27		4		-	-		4	3
28		-		-	-		-	-

\*\* PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period



MONTHLY TRANSPORT TONNAGES					
TERALBA QUARRY			Number of Tonnes		
Routes		1		2	
					3/4.
01-February-2021		221.34		470.70	477.90
02-February-2021		636.50		483.78	493.66
03-February-2021		841.78		756.26	425.32
04-February-2021		1377.02		1273.10	815.86
05-February-2021		1293.16		828.14	603.84
06-February-2021		226.66		275.36	518.88
07-February-2021		-		-	-
08-February-2021		848.38		946.96	1132.42
09-February-2021		1116.56		1305.74	1400.82
10-February-2021		1106.74		849.40	722.46
11-February-2021		2080.80		763.06	1397.86
12-February-2021		1433.78		887.28	1360.16
13-February-2021		230.82		0.00	0.00
14-February-2021		-		-	-
15-February-2021		1248.14		895.00	1099.48
16-February-2021		210.80		247.46	420.26
17-February-2021		393.26		780.60	635.84
18-February-2021		364.58		989.28	676.54
19-February-2021		99.96		514.42	485.62
20-February-2021		0.00		27.42	0.00
21-February-2021		-		-	-
22-February-2021		443.16		618.38	1198.84
23-February-2021		599.34		1340.86	465.18
24-February-2021		698.56		825.34	475.08
25-February-2021		539.80		692.70	782.80
26-February-2021		885.00		678.94	832.00
27-February-2021		106.68		103.50	64.56
28-February-2021		-		-	-
<b>Totals</b>		<b>17002.82</b>		<b>16553.68</b>	<b>16485.38</b>

1 - Northwest  
2 - Southwest  
3 - Eastward

50041.88

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY							Month:	Mar-21	
		Daily Total		Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Westwards Daily	Eastwards Daily
				6pm to 5am	5am to 6am	6am to 7am	7am to 6pm		
Limits		326		6	12	28	20	241	85
Actuals									
	1	97		1	2	9	16	62	35
	2	103		5	-	10	16	55	48
	3	115		6	-	8	16	72	43
	4	114		5	1	6	15	64	50
	5	127		5	-	18	15	68	59
	6	14		4	-	2	3	12	2
	7	-		-	-	-	-	-	-
	8	108		-	6	13	14	74	34
	9	112		5	-	13	14	87	25
	10	110		6	1	8	14	61	49
	11	109		6	-	11	14	72	37
	12	99		5	-	11	16	70	29
	13	15		-	-	3	5	11	4
	14	-		-	-	-	-	-	-
	15	62		-	6	4	13	45	17
	16	119		6	-	11	15	68	51
	17	83		6	-	3	12	56	27
	18	39		5	1	7	5	37	2
	19	35		3	-	5	7	27	8
	20	-		-	-	-	-	-	-
	21	-		-	-	-	-	-	-
	22	30		1	-	8	6	26	4
	23	6		-	-	1	2	5	1
	24	39		-	1	4	6	27	12
	25	79		2	-	7	13	57	22
	26	105		6	1	8	12	71	34
	27	12		-	-	2	5	9	3
	28	-		-	-	-	-	-	-
	29	132		6	-	10	16	79	53
	30	150		6	-	12	20	101	49
	31	183		6	-	14	20	147	36

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY			Month:		Mar-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits				66	66		6	0
Actuals								
1	1	1	1	-	-			
2	6	6	5	-	-			
3	7	7	6	-	-			
4	6	6	5	-	-			
5	6	6	5	-	-			
6	5	5	4	-	-			
7	-	-	-	-	-			
8	-	-	-	-	-			
9	6	6	5	-	-			
10	7	7	6	-	-			
11	7	7	6	-	-			
12	7	7	5	-	-			
13	-	-	-	-	-			
14	-	-	-	-	-			
15	-	-	-	-	-			
16	7	7	6	-	-			
17	8	8	6	-	-			
18	6	6	5	-	-			
19	3	3	3	-	-			
20	-	-	-	-	-			
21	-	-	-	-	-			
22	1	1	1	-	-			
23	-	-	-	-	-			
24	-	-	-	-	-			
25	3	3	2	-	-			
26	7	7	6	-	-			
27	-	-	-	-	-			
28	-	-	-	-	-			
29	6	6	6	-	-			
30	7	7	6	-	-			
31	7	7	6	-	-			

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY		Month:		Mar-21		
		Westwards			Eastwards	
		Max Hourly			Max Hourly	
Limits*		12			0	
Actuals						
1		2			-	
2		-			-	
3		-			-	
4		1			-	
5		-			-	
6		-			-	
7		-			-	
8		6			-	
9		-			-	
10		1			-	
11		-			-	
12		-			-	
13		-			-	
14		-			-	
15		6			-	
16		-			-	
17		-			-	
18		1			-	
19		-			-	
20		-			-	
21		-			-	
22		-			-	
23		-			-	
24		1			-	
25		-			-	
26		1			-	
27		-			-	
28		-			-	
29		-			-	
30		-			-	
31		-			-	

\* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY		Month:		Mar-21	
		Westwards**		Eastwards**	
		Max Hourly		Max Hourly	
Limits*		28		8	
Actuals					
1		8		1	
2		10		-	
3		8		-	
4		5		3	
5		10		8	
6		2		-	
7		-		-	
8		12		1	
9		12		1	
10		7		1	
11		10		1	
12		9		2	
13		2		1	
14		-		-	
15		4		-	
16		7		4	
17		3		-	
18		7		-	
19		5		-	
20		-		-	
21		-		-	
22		8		-	
23		1		-	
24		4		-	
25		7		-	
26		7		1	
27		1		1	
28		-		-	
29		9		1	
30		8		4	
31		12		2	

\* Condition 2 (9)

\*\* Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY			Month:		Mar-21				
		Daily Total		Westwards			Eastwards		
				Daily	Max Hourly		Daily	Max Hourly	
Limits				305	220		20	85	8
Actuals									
1		85		51	10		34	8	
2		87		39	9		48	7	
3		100		57	10		43	7	
4		99		52	8		47	8	
5		103		52	8		51	8	
6		7		5	3		2	1	
7		-		-	-		-	-	
8		89		56	10		33	6	
9		93		69	11		24	4	
10		94		46	8		48	8	
11		91		55	10		36	8	
12		81		54	9		27	7	
13		12		9	5		3	1	
14		-		-	-		-	-	
15		52		35	7		17	6	
16		101		54	8		47	8	
17		72		45	8		27	6	
18		25		23	5		2	1	
19		27		19	5		8	3	
20		-		-	-		-	-	
21		-		-	-		-	-	
22		21		17	5		4	2	
23		5		4	2		1	1	
24		34		22	5		12	3	
25		69		47	10		22	6	
26		89		56	9		33	6	
27		10		8	3		2	1	
28		-		-	-		-	-	
29		116		64	11		52	8	
30		131		86	13		45	7	
31		162		128	18		34	8	

\*\* PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

MONTHLY TRANSPORT TONNAGES						
TERALBA QUARRY			Number of Tonnes			
Routes		1		2		3/4.
01-March-2021		554.74		991.40		638.84
02-March-2021		828.98		602.22		780.88
03-March-2021		1148.68		628.76		889.52
04-March-2021		740.02		763.50		1087.90
05-March-2021		927.98		602.12		1440.70
06-March-2021		141.64		214.60		31.14
07-March-2021		-		-		-
08-March-2021		985.26		772.56		909.96
09-March-2021		1021.90		1242.98		498.20
10-March-2021		825.46		670.54		1045.16
11-March-2021		918.12		826.80		632.10
12-March-2021		877.86		722.02		624.06
13-March-2021		153.16		0.00		55.92
14-March-2021		-		-		-
15-March-2021		587.86		614.12		357.36
16-March-2021		808.70		721.64		875.64
17-March-2021		308.44		967.86		532.44
18-March-2021		31.50		919.06		13.66
19-March-2021		66.08		701.94		219.12
20-March-2021		0.00		0.00		0.00
21-March-2021		-		-		-
22-March-2021		0.00		813.98		114.68
23-March-2021		71.84		50.38		15.98
24-March-2021		367.96		284.72		228.52
25-March-2021		428.00		751.86		411.58
26-March-2021		709.84		1095.30		493.56
27-March-2021		182.74		64.92		47.56
28-March-2021		-		-		-
29-March-2021		1388.84		661.28		906.40
30-March-2021		1204.12		1601.60		1012.92
31-March-2021		2066.66		2298.78		564.76
Totals		17346.38		19584.94		14428.56

1 - Northwest  
2 - Southwest  
3 - Eastward

51359.88



Table 2E: Total Number of Laden Trucks

TERALBA QUARRY						Month:		Apr-21	
		Daily Total		Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Westwards	Eastwards
								Daily	Daily
				6pm to 5am	5am to 6am	6am to 7am	7am to 6pm		
Limits		326		6	12	28	20	241	85
Actuals									
	1	142	5	-	17	19	96	46	
	2	-	-	-	-	-	-	-	
	3	-	-	-	-	-	-	-	
	4	-	-	-	-	-	-	-	
	5	-	-	-	-	-	-	-	
	6	98	3	-	7	13	71	27	
	7	87	4	-	10	14	50	37	
	8	101	6	-	14	14	58	43	
	9	120	6	-	14	15	64	56	
	10	28	5	-	5	7	22	6	
	11	-	-	-	-	-	-	-	
	12	112	1	1	9	15	71	41	
	13	172	5	1	17	20	119	53	
	14	162	4	2	17	20	100	62	
	15	207	3	2	27	20	142	65	
	16	149	4	-	14	20	100	49	
	17	20	4	-	4	3	20	-	
	18	-	-	-	-	-	-	-	
	19	88	1	1	10	15	69	19	
	20	142	6	-	12	18	102	40	
	21	155	4	-	9	19	105	50	
	22	127	4	2	7	17	83	44	
	23	121	3	1	13	16	76	45	
	24	32	4	-	11	5	32	-	
	25	-	-	-	-	-	-	-	
	26	118	1	5	9	15	73	45	
	27	158	4	-	13	20	108	50	
	28	214	5	-	28	20	140	74	
	29	163	5	1	16	20	134	29	
	30	129	5	-	14	18	104	25	

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY			Month:		Apr-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits				66	66		6	0
Actuals								
1	5	5	5	-	-			
2	-	-	-	-	-			
3	-	-	-	-	-			
4	-	-	-	-	-			
5	-	-	-	-	-			
6	4	4	3	-	-			
7	5	5	4	-	-			
8	7	7	6	-	-			
9	7	7	6	-	-			
10	6	6	5	-	-			
11	-	-	-	-	-			
12	1	1	1	-	-			
13	5	5	5	-	-			
14	4	4	4	-	-			
15	6	6	3	-	-			
16	7	7	4	-	-			
17	6	6	4	-	-			
18	-	-	-	-	-			
19	1	1	1	-	-			
20	7	7	6	-	-			
21	5	5	4	-	-			
22	6	6	4	-	-			
23	5	5	3	-	-			
24	5	5	4	-	-			
25	-	-	-	-	-			
26	1	1	1	-	-			
27	6	6	4	-	-			
28	7	7	5	-	-			
29	6	6	5	-	-			
30	7	7	6	-	-			
				-	-			

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY		Month:		Apr-21		
		Westwards			Eastwards	
		Max Hourly			Max Hourly	
Limits*		12			0	
Actuals						
1		-			-	
2		-			-	
3		-			-	
4		-			-	
5		-			-	
6		-			-	
7		-			-	
8		-			-	
9		-			-	
10		-			-	
11		-			-	
12		1			-	
13		1			-	
14		2			-	
15		2			-	
16		-			-	
17		-			-	
18		-			-	
19		1			-	
20		-			-	
21		-			-	
22		2			-	
23		1			-	
24		-			-	
25		-			-	
26		5			-	
27		-			-	
28		-			-	
29		1			-	
30		-			-	

\* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY		Month:		Apr-21	
		Westwards**		Eastwards**	
		Max Hourly		Max Hourly	
Limits*		28		8	
Actuals					
1		12		5	
2		-		-	
3		-		-	
4		-		-	
5		-		-	
6		7		-	
7		9		1	
8		9		5	
9		10		4	
10		4		1	
11		-		-	
12		8		1	
13		15		2	
14		13		4	
15		19		8	
16		9		5	
17		4		-	
18		-		-	
19		10		-	
20		11		1	
21		9		-	
22		7		-	
23		11		2	
24		11		-	
25		-		-	
26		9		-	
27		8		5	
28		20		8	
29		13		3	
30		14		-	

\* Condition 2 (9)

\*\* Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY			Month:		Apr-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits		305		220	20		85	8
Actuals								
1		120		79	13		41	6
2		-		-	-		-	-
3		-		-	-		-	-
4		-		-	-		-	-
5		-		-	-		-	-
6		87		60	9		27	6
7		72		36	10		36	6
8		80		42	8		38	8
9		99		47	11		52	7
10		17		12	5		5	2
11		-		-	-		-	-
12		101		61	12		40	6
13		149		98	14		51	8
14		139		81	13		58	8
15		172		115	15		57	8
16		128		84	17		44	8
17		10		10	3		-	-
18		-		-	-		-	-
19		76		57	11		19	4
20		123		84	16		39	7
21		141		91	15		50	8
22		112		68	12		44	8
23		102		59	12		43	8
24		16		16	5		-	-
25		-		-	-		-	-
26		103		58	10		45	7
27		139		94	15		45	7
28		179		113	20		66	8
29		140		114	16		26	5
30		108		83	15		25	6

\*\* PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

MONTHLY TRANSPORT TONNAGES						
TERALBA QUARRY			Number of Tonnes			
Routes		1		2		3/4.
01-April-2021		1097.54		1619.14		694.52
02-April-2021		-		-		-
03-April-2021		-		-		-
04-April-2021		-		-		-
05-April-2021		-		-		-
06-April-2021		1049.86		1000.44		410.56
07-April-2021		704.38		608.34		602.48
08-April-2021		670.12		752.80		586.38
09-April-2021		1139.36		643.54		1189.02
10-April-2021		162.76		506.10		101.78
11-April-2021		-		-		-
12-April-2021		683.36		1282.86		784.54
13-April-2021		1435.82		1704.68		729.82
14-April-2021		1130.82		1194.90		928.64
15-April-2021		1769.38		1666.10		1115.60
16-April-2021		887.04		1799.86		869.76
17-April-2021		225.12		364.04		0.00
18-April-2021		-		-		-
19-April-2021		727.50		1354.80		440.30
20-April-2021		718.30		1904.14		861.30
21-April-2021		1161.98		1496.42		905.56
22-April-2021		470.78		1625.64		824.22
23-April-2021		849.84		1081.56		1021.88
24-April-2021		285.28		516.28		0.00
25-April-2021		-		-		-
26-April-2021		901.26		1299.20		887.96
27-April-2021		1184.08		1477.06		866.68
28-April-2021		1672.98		1866.90		1898.20
29-April-2021		1527.14		2119.96		442.00
30-April-2021		1068.00		1845.14		492.64
Totals		21522.70		29729.90		16653.84

1 - Northwest  
2 - Southwest  
3 - Eastward

67906.44

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY							Month:	May-21	
		Daily Total		Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Westwards Daily	Eastwards Daily
				6pm to 5am	5am to 6am	6am to 7am	7am to 6pm		
Limits		326		6	12	28	20	241	85
Actuals									
	1	25		3	-	5	7	21	4
	2	-		-	-	-	-	-	-
	3	103		1	4	8	16	87	16
	4	124		5	1	11	15	98	26
	5	115		5	-	6	18	63	52
	6	50		2	-	5	8	21	29
	7	76		5	-	4	11	27	49
	8	10		1	1	2	4	4	6
	9	-		-	-	-	-	-	-
	10	131		5	1	9	19	77	54
	11	129		4	1	12	18	79	50
	12	150		4	-	17	19	129	21
	13	151		3	1	13	18	94	57
	14	135		6	-	9	19	86	49
	15	22		1	3	7	3	22	-
	16	-		-	-	-	-	-	-
	17	191		2	1	9	20	116	75
	18	155		2	-	12	19	97	58
	19	184		3	-	14	20	117	67
	20	208		3	-	19	20	137	71
	21	156		5	1	12	20	98	58
	22	54		2	-	8	10	20	34
	23	-		-	-	-	-	-	-
	24	100		2	3	7	14	67	33
	25	116		5	2	9	18	84	32
	26	123		4	2	8	18	97	26
	27	137		6	-	10	20	99	38
	28	145		5	-	10	20	109	36
	29	13		3	-	3	3	10	3
	30	-		-	-	-	-	-	-
	31	123		2	3	7	17	97	26



Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY			Month:		May-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits				66	66		6	0
Actuals								
1	5	5	3	-	-			
2	-	-	-	-	-			
3	1	1	1	-	-			
4	6	6	5	-	-			
5	7	7	5	-	-			
6	3	3	2	-	-			
7	6	6	5	-	-			
8	1	1	1	-	-			
9	-	-	-	-	-			
10	5	5	5	-	-			
11	5	5	4	-	-			
12	5	5	4	-	-			
13	5	5	3	-	-			
14	7	7	6	-	-			
15	2	2	1	-	-			
16	-	-	-	-	-			
17	2	2	2	-	-			
18	4	4	2	-	-			
19	6	6	3	-	-			
20	4	4	3	-	-			
21	6	6	5	-	-			
22	4	4	2	-	-			
23	-	-	-	-	-			
24	2	2	2	-	-			
25	6	6	5	-	-			
26	6	6	4	-	-			
27	7	7	6	-	-			
28	6	6	5	-	-			
29	4	4	3	-	-			
30	-	-	-	-	-			
31	2	2	2	-	-			

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY		Month:		May-21		
		Westwards			Eastwards	
		Max Hourly			Max Hourly	
Limits*		12			0	
Actuals						
1		-			-	
2		-			-	
3		4			-	
4		1			-	
5		-			-	
6		-			-	
7		-			-	
8		1			-	
9		-			-	
10		1			-	
11		1			-	
12		-			-	
13		1			-	
14		-			-	
15		3			-	
16		-			-	
17		1			-	
18		-			-	
19		-			-	
20		-			-	
21		1			-	
22		-			-	
23		-			-	
24		3			-	
25		2			-	
26		2			-	
27		-			-	
28		-			-	
29		-			-	
30		-			-	
31		3			-	

\* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY		Month:		May-21	
		Westwards**		Eastwards**	
		Max Hourly		Max Hourly	
Limits*		28		8	
Actuals					
1		5		-	
2		-		-	
3		7		1	
4		10		1	
5		5		1	
6		3		2	
7		2		2	
8		2		-	
9		-		-	
10		9		-	
11		9		3	
12		16		1	
13		11		2	
14		8		1	
15		7		-	
16		-		-	
17		7		2	
18		11		1	
19		11		3	
20		16		3	
21		8		4	
22		6		2	
23		-		-	
24		7		-	
25		7		2	
26		6		2	
27		7		3	
28		10		-	
29		2		1	
30		-		-	
31		7		-	

\* Condition 2 (9)

\*\* Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY			Month:		May-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits		305		220	20		85	8
Actuals								
1		15		11	5		4	2
2		-		-	-		-	-
3		90		75	12		15	3
4		105		80	13		25	4
5		102		51	10		51	8
6		42		15	3		27	5
7		66		19	3		47	8
8		6		-	-		6	4
9		-		-	-		-	-
10		116		62	11		54	8
11		111		64	11		47	8
12		128		108	17		20	4
13		132		77	11		55	8
14		119		71	15		48	8
15		10		10	3		-	-
16		-		-	-		-	-
17		179		106	14		73	8
18		139		82	13		57	8
19		164		100	14		64	8
20		185		117	14		68	8
21		137		83	13		54	8
22		42		10	3		32	8
23		-		-	-		-	-
24		88		55	10		33	5
25		99		69	11		30	7
26		107		83	15		24	5
27		120		85	17		35	7
28		129		93	17		36	8
29		6		4	3		2	2
30		-		-	-		-	-
31		111		85	14		26	6

\*\* PLEASE NOTE: The Hilgited Max Hourly Movements Do Not Relate To Same One Hour Period

MONTHLY TRANSPORT TONNAGES					
TERALBA QUARRY			Number of Tonnes		
Routes		1		2	
					3/4.
01-May-2021		275.68		378.18	57.96
02-May-2021		-		-	-
03-May-2021		590.40		1691.20	403.66
04-May-2021		906.92		1674.88	507.70
05-May-2021		833.16		714.02	725.00
06-May-2021		213.18		188.58	456.24
07-May-2021		87.16		454.34	653.48
08-May-2021		0.00		103.74	118.70
09-May-2021		-		-	-
10-May-2021		1057.10		1096.58	965.92
11-May-2021		714.56		1475.02	1151.78
12-May-2021		1170.82		2075.34	509.52
13-May-2021		965.24		1641.32	1650.42
14-May-2021		876.80		1360.90	1302.16
15-May-2021		323.20		222.86	0.00
16-May-2021		-		-	-
17-May-2021		1391.78		1344.50	1617.68
18-May-2021		1570.98		1079.28	1048.60
19-May-2021		1278.58		1275.54	1345.90
20-May-2021		1735.86		1576.12	1606.54
21-May-2021		871.44		1282.00	1093.34
22-May-2021		211.70		323.84	566.38
23-May-2021		-		-	-
24-May-2021		999.90		785.90	543.84
25-May-2021		618.36		1336.16	600.70
26-May-2021		1108.22		1117.72	441.04
27-May-2021		914.22		1364.80	665.22
28-May-2021		1995.72		1087.32	537.92
29-May-2021		117.22		209.98	91.66
30-May-2021		-		-	-
31-May-2021		1219.90		1383.16	573.66
<b>Totals</b>		<b>22048.10</b>		<b>27243.28</b>	<b>19235.02</b>

1 - Northwest  
2 - Southwest  
3 - Eastward

68526.40

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY							Month:	Jun-21	
		Daily Total		Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Westwards Daily	Eastwards Daily
				6pm to 5am	5am to 6am	6am to 7am	7am to 6pm		
Limits		326		6	12	28	20	241	85
Actuals									
	1	149		5	-	13	20	97	52
	2	178		4	1	12	20	124	54
	3	170		5	-	19	20	118	52
	4	72		5	-	7	11	54	18
	5	15		2	-	3	3	12	3
	6	-		-	-	-	-	-	-
	7	155		2	-	11	19	95	60
	8	167		4	-	14	20	116	51
	9	145		4	1	12	19	105	40
	10	124		5	-	13	16	107	17
	11	137		4	-	10	20	114	23
	12	17		2	-	5	5	17	0
	13	-		-	-	-	-	-	-
	14	-		-	-	-	-	-	-
	15	106		2	1	12	14	75	31
	16	174		4	-	16	20	141	33
	17	160		6	-	13	19	133	27
	18	168		5	-	15	20	126	42
	19	24		5	1	6	5	23	1
	20	-		-	-	-	-	-	-
	21	128		-	6	11	18	83	45
	22	118		4	1	13	16	84	34
	23	139		6	1	14	17	96	43
	24	136		6	-	17	19	96	40
	25	141		5	-	15	19	120	21
	26	30		2	-	8	6	30	0
	27	-		-	-	-	-	-	-
	28	124		2	1	11	17	96	28
	29	154		4	-	8	20	98	56
	30	172		4	-	15	20	115	57

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY			Month:		Jun-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits				66	66		6	0
Actuals								
1	6	6	5	-	-			
2	5	5	4	-	-			
3	6	6	5	-	-			
4	6	6	5	-	-			
5	4	4	2	-	-			
6	-	-	-	-	-			
7	2	2	2	-	-			
8	6	6	4	-	-			
9	6	6	4	-	-			
10	7	7	5	-	-			
11	5	5	4	-	-			
12	2	2	2	-	-			
13	-	-	-	-	-			
14	-	-	-	-	-			
15	2	2	2	-	-			
16	5	5	4	-	-			
17	8	8	6	-	-			
18	6	6	5	-	-			
19	6	6	5	-	-			
20	-	-	-	-	-			
21	-	-	-	-	-			
22	7	7	4	-	-			
23	7	7	6	-	-			
24	7	7	6	-	-			
25	6	6	5	-	-			
26	2	2	2	-	-			
27	-	-	-	-	-			
28	2	2	2	-	-			
29	4	4	4	-	-			
30	4	4	4	-	-			
				-	-			



Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY		Month:		Jun-21
		Westwards		Eastwards
		Max Hourly		Max Hourly
Limits*		12		0
Actuals				
1		-		-
2		1		-
3		-		-
4		-		-
5		-		-
6		-		-
7		-		-
8		-		-
9		1		-
10		-		-
11		-		-
12		-		-
13		-		-
14		-		-
15		1		-
16		-		-
17		-		-
18		-		-
19		1		-
20		-		-
21		6		-
22		1		-
23		1		-
24		-		-
25		-		-
26		-		-
27		-		-
28		1		-
29		-		-
30		-		-
				-

\* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY		Month:		Jun-21	
		Westwards**		Eastwards**	
		Max Hourly		Max Hourly	
Limits*		28		8	
Actuals					
1		11		2	
2		11		1	
3		14		5	
4		7		-	
5		3		-	
6		-		-	
7		9		2	
8		10		4	
9		8		4	
10		10		3	
11		9		1	
12		5		-	
13		-		-	
14		-		-	
15		11		1	
16		16		-	
17		13		-	
18		11		4	
19		6		-	
20		-		-	
21		10		1	
22		12		1	
23		14		-	
24		17		-	
25		14		1	
26		8		-	
27		-		-	
28		8		3	
29		6		2	
30		12		3	

\* Condition 2 (9)

\*\* Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY			Month:		Jun-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits		305	220	20	85	8		
Actuals								
1		130		80	13		50	8
2		160		107	16		53	8
3		145		98	17		47	8
4		59		41	10		18	4
5		8		5	1		3	2
6		-		-	-		-	-
7		142		84	13		58	7
8		147		100	14		47	7
9		126		90	15		36	7
10		104		90	16		14	6
11		122		100	18		22	5
12		10		10	5		0	-
13		-		-	-		-	-
14		-		-	-		-	-
15		91		61	12		30	5
16		153		120	17		33	5
17		139		112	18		27	5
18		147		109	16		38	6
19		11		10	4		1	1
20		-		-	-		-	-
21		111		67	10		44	8
22		98		64	12		34	6
23		117		74	12		43	8
24		112		72	15		40	8
25		120		100	17		20	3
26		20		20	6		0	0
27		-		-	-		-	-
28		110		85	14		25	8
29		142		88	15		54	8
30		153		99	14		54	8

\*\* PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

MONTHLY TRANSPORT TONNAGES						
TERALBA QUARRY			Number of Tonnes			
Routes		1		2		3/4.
01-June-2021		1171.36		1315.92		786.44
02-June-2021		1005.92		2057.88		1508.72
03-June-2021		1260.78		1575.78		1277.40
04-June-2021		499.72		722.78		371.02
05-June-2021		196.60		172.06		98.66
06-June-2021		-		-		-
07-June-2021		1144.86		1480.42		1116.64
08-June-2021		1177.52		2108.30		783.68
09-June-2021		713.88		2122.78		625.04
10-June-2021		1378.88		1559.42		406.72
11-June-2021		1587.18		1681.44		370.88
12-June-2021		304.14		143.42		0.00
13-June-2021		-		-		-
14-June-2021		-		-		-
15-June-2021		1254.18		834.14		632.16
16-June-2021		3149.52		931.82		648.88
17-June-2021		2475.70		1181.20		677.70
18-June-2021		2000.28		1305.50		886.80
19-June-2021		475.02		98.74		32.34
20-June-2021		-		-		-
21-June-2021		1236.04		1152.92		916.50
22-June-2021		1443.24		966.76		711.40
23-June-2021		1763.82		881.02		864.92
24-June-2021		1702.34		707.28		861.98
25-June-2021		1126.04		1636.28		368.10
26-June-2021		386.10		645.74		0.00
27-June-2021		-		-		-
28-June-2021		684.12		1365.12		719.08
29-June-2021		487.96		1664.90		970.54
30-June-2021		924.64		1349.10		1024.84
Totals		29549.84		29660.72		16660.44

1 - Northwest  
2 - Southwest  
3 - Eastward

75871.00

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY							Month:	Jul-21	
		Daily Total		Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Westwards Daily	Eastwards Daily
				6pm to 5am	5am to 6am	6am to 7am	7am to 6pm		
Limits		326		6	12	28	20	241	85
Actuals									
	1	120		6	0	6	17	69	51
	2	108		5	0	7	16	66	42
	3	29		2	1	8	6	21	8
	4	-		-	-	-	-	-	-
	5	174		2	2	17	20	104	70
	6	113		5	0	10	19	66	47
	7	142		4	0	16	18	107	35
	8	126		4	1	15	17	86	40
	9	70		5	0	5	12	50	20
	10	4		1	0	1	2	4	0
	11	-		-	-	-	-	-	-
	12	77		2	1	5	12	52	25
	13	99		2	0	9	15	54	45
	14	88		2	0	10	12	60	28
	15	125		3	1	10	20	85	40
	16	80		0	0	8	13	56	24
	17	38		1	0	6	10	33	5
	18	-		-	-	-	-	-	-
	19	113		0	0	6	15	59	54
	20	126		0	0	8	20	80	46
	21	138		4	1	12	16	92	46
	22	161		4	0	11	20	127	34
	23	121		4	0	10	17	71	50
	24	31		0	0	6	6	16	15
	25	-		-	-	-	-	-	-
	26	82		4	0	8	12	63	19
	27	106		2	0	11	13	64	42
	28	121		0	0	8	16	58	63
	29	110		1	0	9	17	56	54
	30	126		3	0	13	17	84	42
	31	28		5	0	6	6	25	3

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY			Month:		Jul-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits				66	66		6	0
Actuals								
1		7		7	6	-	-	
2		6		6	5	-	-	
3		3		3	2	-	-	
4		-		-	-	-	-	
5		2		2	2	-	-	
6		6		6	5	-	-	
7		5		5	4	-	-	
8		6		6	4	-	-	
9		6		6	5	-	-	
10		1		1	1	-	-	
11		-		-	-	-	-	
12		2		2	2	-	-	
13		2		2	2	-	-	
14		2		2	2	-	-	
15		4		4	3	-	-	
16		0		0	0	-	-	
17		2		2	1	-	-	
18		-		-	-	-	-	
19		0		0	0	-	-	
20		0		0	0	-	-	
21		4		4	4	-	-	
22		4		4	4	-	-	
23		4		4	4	-	-	
24		0		0	0	-	-	
25		-		-	-	-	-	
26		4		4	4	-	-	
27		2		2	2	-	-	
28		0		0	0	-	-	
29		1		1	1	-	-	
30		3		3	3	-	-	
31		6		6	5	-	-	

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY		Month:		Jul-21
		Westwards		Eastwards
		Max Hourly		Max Hourly
Limits*		12		0
Actuals				
1		0		-
2		0		-
3		1		-
4		-		-
5		2		-
6		0		-
7		0		-
8		1		-
9		0		-
10		0		-
11		-		-
12		1		-
13		0		-
14		0		-
15		1		-
16		0		-
17		0		-
18		-		-
19		0		-
20		0		-
21		1		-
22		0		-
23		0		-
24		0		-
25		-		-
26		0		-
27		0		-
28		0		-
29		0		-
30		0		-
31		0		-

\* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY		Month:		Jul-21
		Westwards**		Eastwards**
		Max Hourly		Max Hourly
Limits*		28		8
Actuals				
1		5		1
2		7		0
3		7		1
4		-		-
5		13		4
6		8		2
7		13		3
8		14		1
9		5		0
10		1		0
11		-		-
12		5		0
13		6		3
14		9		1
15		9		1
16		8		3
17		6		0
18		-		-
19		4		2
20		8		0
21		9		3
22		10		1
23		7		3
24		3		3
25		-		-
26		8		0
27		10		1
28		7		1
29		8		1
30		10		3
31		6		0

\* Condition 2 (9)

\*\* Combined Maximum hourly No. of laden trucks = 28



Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY			Month:		Jul-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits		305		220	20		85	8
Actuals								
1		107		57	10		50	8
2		95		53	9		42	7
3		17		10	5		7	3
4		-		-	-		-	-
5		153		87	13		66	8
6		97		52	11		45	8
7		121		89	14		32	8
8		104		65	14		39	8
9		59		39	7		20	8
10		2		2	1		0	0
11		-		-	-		-	-
12		69		44	9		25	5
13		88		46	8		42	7
14		76		49	10		27	5
15		110		71	14		39	7
16		72		48	11		24	6
17		30		25	9		5	1
18		-		-	-		-	-
19		107		55	11		52	8
20		118		72	13		46	7
21		121		78	11		43	8
22		146		113	16		33	8
23		107		60	10		47	8
24		25		13	4		12	4
25		-		-	-		-	-
26		70		51	9		19	4
27		93		52	9		41	6
28		113		51	8		62	8
29		100		47	9		53	8
30		110		71	11		39	8
31		16		13	6		3	2

\*\* PLEASE NOTE: The Hilgited Max Hourly Movements Do Not Relate To Same One Hour Period

MONTHLY TRANSPORT TONNAGES						
TERALBA QUARRY			Number of Tonnes			
Routes		1		2		3/4.
01-July-2021		664.68		1109.74		920.56
02-July-2021		473.04		1113.02		714.08
03-July-2021		459.56		204.56		109.48
04-July-2021		-		-		-
05-July-2021		1176.10		1568.10		901.74
06-July-2021		909.06		916.54		818.52
07-July-2021		1630.42		1478.54		729.76
08-July-2021		1046.12		1481.64		824.62
09-July-2021		494.58		786.34		385.88
10-July-2021		0.00		114.86		0.00
11-July-2021		-		-		-
12-July-2021		809.74		560.04		388.78
13-July-2021		610.72		807.20		824.36
14-July-2021		187.10		1371.50		572.90
15-July-2021		791.72		1181.22		719.38
16-July-2021		570.46		912.30		423.80
17-July-2021		245.46		684.22		104.54
18-July-2021		-		-		-
19-July-2021		1062.60		534.48		1109.32
20-July-2021		1120.88		809.20		1024.76
21-July-2021		1777.94		531.68		945.88
22-July-2021		1374.52		1932.62		800.96
23-July-2021		823.78		1150.74		1262.68
24-July-2021		547.14		34.04		367.72
25-July-2021		-		-		-
26-July-2021		1366.72		479.88		377.44
27-July-2021		750.90		916.32		1059.26
28-July-2021		922.72		585.02		1398.28
29-July-2021	827.88	837.82	1160.14			
30-July-2021	952.26	1470.88	1105.84			
31-July-2021	397.00	429.76	76.26			
Totals		21993.10		24002.26		19126.94

1 - Northwest  
2 - Southwest  
3 - Eastward

65122.30

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY						Month:		Aug-21	
		Daily Total		Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Westwards Daily	Eastwards Daily
				6pm to 5am	5am to 6am	6am to 7am	7am to 6pm		
Limits		326		6	12	28	20	241	85
Actuals									
	1	-	-	-	-	-	-	-	-
	2	127	1	3	8	16	71	56	
	3	176	2	1	9	20	131	45	
	4	185	4	0	19	19	164	21	
	5	96	2	0	16	12	70	26	
	6	105	4	0	13	15	91	14	
	7	17	0	1	6	4	15	2	
	8	-	-	-	-	-	-	-	
	9	69	3	0	14	9	52	17	
	10	98	3	0	14	14	59	39	
	11	90	3	0	15	13	49	41	
	12	94	3	0	11	12	82	12	
	13	112	3	0	13	13	101	11	
	14	42	2	3	10	10	36	6	
	15	-	-	-	-	-	-	-	
	16	155	0	4	13	20	132	23	
	17	121	3	1	10	16	99	22	
	18	81	3	0	9	14	56	25	
	19	119	4	0	16	17	70	49	
	20	109	5	0	15	15	97	12	
	21	35	4	0	9	8	28	7	
	22	-	-	-	-	-	-	-	
	23	85	1	3	12	15	59	26	
	24	40	5	0	11	5	36	4	
	25	72	4	0	9	11	45	27	
	26	97	3	0	14	12	60	37	
	27	95	2	0	13	14	89	6	
	28	34	6	1	7	8	31	3	
	29	-	-	-	-	-	-	-	
	30	103	0	5	9	16	87	16	
	31	125	4	0	13	16	89	36	

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY				Month:		Aug-21		
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits				66	66		6	0
Actuals								
1	-	-	-	-	-	-	-	
2	1	1	1	1	-	-	-	
3	3	3	2	2	-	-	-	
4	4	4	4	4	-	-	-	
5	3	3	2	2	-	-	-	
6	3	3	3	3	-	-	-	
7	0	0	0	0	-	-	-	
8	-	-	-	-	-	-	-	
9	3	3	3	3	-	-	-	
10	4	4	3	3	-	-	-	
11	4	4	4	4	-	-	-	
12	4	4	3	3	-	-	-	
13	4	4	3	3	-	-	-	
14	3	3	3	3	-	-	-	
15	-	-	-	-	-	-	-	
16	0	0	0	0	-	-	-	
17	4	4	3	3	-	-	-	
18	4	4	3	3	-	-	-	
19	5	5	4	4	-	-	-	
20	6	6	5	5	-	-	-	
21	4	4	4	4	-	-	-	
22	-	-	-	-	-	-	-	
23	1	1	1	1	-	-	-	
24	6	6	5	5	-	-	-	
25	5	5	4	4	-	-	-	
26	3	3	3	3	-	-	-	
27	2	2	2	2	-	-	-	
28	7	7	6	6	-	-	-	
29	-	-	-	-	-	-	-	
30	0	0	0	0	-	-	-	
31	5	5	4	4	-	-	-	

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY		Month:		Aug-21		
		Westwards			Eastwards	
		Max Hourly			Max Hourly	
Limits*		12			0	
Actuals						
1		-			-	
2		3			-	
3		1			-	
4		0			-	
5		0			-	
6		0			-	
7		1			-	
8		-			-	
9		0			-	
10		0			-	
11		0			-	
12		0			-	
13		0			-	
14		3			-	
15		-			-	
16		4			-	
17		1			-	
18		0			-	
19		0			-	
20		0			-	
21		0			-	
22		-			-	
23		3			-	
24		0			-	
25		0			-	
26		0			-	
27		0			-	
28		1			-	
29		-			-	
30		5			-	
31		0			-	

\* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY		Month:		Aug-21	
		Westwards**		Eastwards**	
		Max Hourly		Max Hourly	
Limits*		28		8	
Actuals					
1		-		-	
2		7		1	
3		6		3	
4		19		1	
5		14		2	
6		12		1	
7		6		0	
8		-		-	
9		13		1	
10		10		4	
11		8		7	
12		10		1	
13		11		2	
14		9		1	
15		-		-	
16		12		1	
17		9		1	
18		7		2	
19		13		3	
20		13		2	
21		8		1	
22		-		-	
23		11		1	
24		11		0	
25		8		1	
26		11		3	
27		13		0	
28		7		0	
29		-		-	
30		8		1	
31		12		1	

\* Condition 2 (9)

\*\* Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY			Month:		Aug-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits		305		220	20		85	8
Actuals								
1		-		-		-		-
2		15		60	10	55		8
3		163		121	18	42		8
4		161		141	18	20		4
5		77		53	8	24		5
6		89		76	13	13		5
7		10		8	3	2		2
8		-		-	-	-		-
9		52		36	6	16		3
10		80		45	8	35		7
11		71		37	10	34		6
12		79		68	11	11		3
13		95		86	13	9		3
14		26		21	8	5		2
15		-		-	-	-		-
16		138		116	17	22		5
17		106		85	13	21		5
18		68		45	8	23		6
19		98		52	9	46		8
20		88		78	12	10		3
21		22		16	5	6		3
22		-		-	-	-		-
23		69		44	10	25		6
24		23		19	4	4		2
25		58		32	6	26		6
26		80		46	9	34		6
27		80		74	14	6		2
28		19		16	6	3		2
29		-		-	-	-		-
30		89		74	14	15		4
31		107		72	14	35		7

\*\* PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

MONTHLY TRANSPORT TONNAGES						
TERALBA QUARRY			Number of Tonnes			
Routes		1		2		3/4.
01-August-2021		-		-		-
02-August-2021		894.60		1111.30		1401.74
03-August-2021		1570.68		1775.50		1165.68
04-August-2021		2488.46		1408.20		575.34
05-August-2021		543.46		1130.36		615.34
06-August-2021		1022.58		1533.42		305.58
07-August-2021		356.36		116.76		48.90
08-August-2021		-		-		-
09-August-2021		417.22		972.30		451.16
10-August-2021		645.36		827.08		724.86
11-August-2021		834.74		607.10		857.92
12-August-2021		962.00		1256.64		218.92
13-August-2021		926.56		1367.16		216.32
14-August-2021		445.18		700.36		84.02
15-August-2021		-		-		-
16-August-2021		2365.50		1514.40		509.26
17-August-2021		2209.08		642.74		551.76
18-August-2021		760.62		880.32		674.36
19-August-2021		614.96		1146.52		916.80
20-August-2021		1117.84		1369.20		335.68
21-August-2021		524.94		403.18		100.80
22-August-2021		-		-		-
23-August-2021		698.32		1013.90		467.36
24-August-2021		438.58		473.54		103.56
25-August-2021		642.76		540.10		456.74
26-August-2021		575.86		962.70		580.28
27-August-2021		1322.72		875.50		114.10
28-August-2021		268.18		608.26		47.28
29-August-2021	-	-	-			
30-August-2021	527.38	1637.16	298.08			
31-August-2021	821.88	1441.72	643.02			
Totals		23995.82		26315.42		12464.86

1 - Northwest  
2 - Southwest  
3 - Eastward

62776.10



Table 2E: Total Number of Laden Trucks

TERALBA QUARRY						Month:		Dec-21	
		Daily Total		Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Max Hourly Daily	Westwards Daily	Eastwards Daily
				6pm to 5am	5am to 6am	6am to 7am	7am to 6pm		
Limits		326		6	12	28	20	241	85
Actuals									
	1	128		5	0	12	19	82	46
	2	187		4	0	19	20	116	71
	3	144		6	0	19	20	88	56
	4	36		2	0	8	8	22	14
	5	-		-	-	-	-	-	-
	6	127		2	5	11	18	87	40
	7	119		4	0	17	14	89	30
	8	112		5	0	13	13	86	26
	9	135		3	0	13	19	72	63
	10	150		4	0	9	20	98	52
	11	54		3	0	9	9	43	11
	12	-		-	-	-	-	-	-
	13	121		2	1	13	15	100	21
	14	115		4	0	17	15	92	23
	15	120		4	0	19	15	77	43
	16	153		5	0	19	17	105	48
	17	136		4	0	20	19	103	33
	18	65		2	3	14	14	39	26
	19	-		-	-	-	-	-	-
	20	130		0	6	10	16	100	30
	21	121		6	1	16	16	79	42
	22	98		6	0	18	12	78	20
	23	37		6	1	8	6	35	2
	24	15		5	0	7	1	14	1
	25	-		-	-	-	-	-	-
	26	-		-	-	-	-	-	-
	27	-		-	-	-	-	-	-
	28	-		-	-	-	-	-	-
	29	-		-	-	-	-	-	-
	30	-		-	-	-	-	-	-
	31	-		-	-	-	-	-	-

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY			Month:		Dec-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits		66		66	6		0	0
Actuals								
	1	6		6	5		-	-
	2	5		5	4		-	-
	3	6		6	6		-	-
	4	3		3	2		-	-
	5	-		-	-		-	-
	6	2		2	2		-	-
	7	5		5	4		-	-
	8	6		6	5		-	-
	9	4		4	3		-	-
	10	4		4	4		-	-
	11	4		4	3		-	-
	12	-		-	-		-	-
	13	2		2	2		-	-
	14	5		5	4		-	-
	15	5		5	4		-	-
	16	5		5	5		-	-
	17	4		4	4		-	-
	18	3		3	2		-	-
	19	-		-	-		-	-
	20	0		0	0		-	-
	21	6		6	6		-	-
	22	6		6	6		-	-
	23	6		6	6		-	-
	24	5		5	5		-	-
	25	-		-	-		-	-
	26	-		-	-		-	-
	27	-		-	-		-	-
	28	-		-	-		-	-
	29	-		-	-		-	-
	30	-		-	-		-	-
	31	-		-	-		-	-

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY		Month:		Dec-21		
		Westwards			Eastwards	
		Max Hourly			Max Hourly	
Limits*		12			0	
Actuals						
1		0			-	
2		0			-	
3		0			-	
4		0			-	
5		-			-	
6		5			-	
7		0			-	
8		0			-	
9		0			-	
10		0			-	
11		0			-	
12		-			-	
13		1			-	
14		0			-	
15		0			-	
16		0			-	
17		0			-	
18		3			-	
19		-			-	
20		6			-	
21		1			-	
22		0			-	
23		1			-	
24		0			-	
25		-			-	
26		-			-	
27		-			-	
28		-			-	
29		-			-	
30		-			-	
31		-			-	

\* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY		Month:		Dec-21	
		Westwards**		Eastwards**	
		Max Hourly		Max Hourly	
Limits*		28		8	
Actuals					
1		9		3	
2		14		5	
3		12		7	
4		8		0	
5		-		-	
6		10		1	
7		15		2	
8		11		2	
9		7		6	
10		4		5	
11		9		0	
12		-		-	
13		13		0	
14		14		3	
15		14		5	
16		14		5	
17		19		1	
18		10		4	
19		-		-	
20		6		4	
21		13		3	
22		15		3	
23		8		0	
24		6		1	
25		-		-	
26		-		-	
27		-		-	
28		-		-	
29		-		-	
30		-		-	
31		-		-	

\* Condition 2 (9)

\*\* Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY			Month:		Dec-21			
		Daily Total		Westwards			Eastwards	
				Daily	Max Hourly		Daily	Max Hourly
Limits		305		220	20		85	8
Actuals								
	1	110		67	13		43	7
	2	163		97	13		66	8
	3	119		70	12		49	8
	4	25		11	5		14	6
	5	-		-	-		-	-
	6	109		70	11		39	7
	7	97		69	11		28	8
	8	93		69	11		24	5
	9	118		61	11		57	8
	10	137		90	13		47	8
	11	41		30	9		11	3
	12	-		-	-		-	-
	13	105		84	13		21	5
	14	93		73	10		20	7
	15	96		58	9		38	6
	16	129		86	11		43	8
	17	112		80	13		32	6
	18	45		23	8		22	6
	19	-		-	-		-	-
	20	114		88	13		26	4
	21	98		59	13		39	8
	22	74		57	9		17	3
	23	22		20	6		2	2
	24	3		3	1		0	0
	25	-		-	-		-	-
	26	-		-	-		-	-
	27	-		-	-		-	-
	28	-		-	-		-	-
	29	-		-	-		-	-
	30	-		-	-		-	-
	31	-		-	-		-	-

\*\* PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

MONTHLY TRANSPORT TONNAGES						
TERALBA QUARRY			Number of Tonnes			
Routes		1		2		3/4.
01-December-2021		985.56		759.44		873.84
02-December-2021		1647.08		1376.94		1677.02
03-December-2021		1103.88		1413.96		1487.40
04-December-2021		192.88		419.06		359.38
05-December-2021		-		-		-
06-December-2021		1429.22		1090.30		852.94
07-December-2021		660.88		1716.44		679.24
08-December-2021		1177.94		1003.72		324.36
09-December-2021		1015.12		825.20		1434.46
10-December-2021		2140.68		551.14		844.28
11-December-2021		855.36		484.64		197.02
12-December-2021		-		-		-
13-December-2021		1570.66		1215.94		430.40
14-December-2021		1524.90		1072.28		334.56
15-December-2021		1266.84		937.54		930.50
16-December-2021		1355.48		1533.84		1233.98
17-December-2021		1849.40		1076.40		650.92
18-December-2021		629.44		693.90		619.06
19-December-2021		-		-		-
20-December-2021		1892.08		1086.60		741.64
21-December-2021		1553.62		875.82		1093.92
22-December-2021		1365.24		890.72		500.66
23-December-2021		323.12		550.78		64.50
24-December-2021		0.00		420.88		39.72
25-December-2021		-		-		-
26-December-2021		-		-		-
27-December-2021		-		-		-
28-December-2021		-		-		-
29-December-2021		-		-		-
30-December-2021		-		-		-
31-December-2021	-	-	-			
Totals		24539.38		19995.54		15369.80

1 - Northwest  
2 - Southwest  
3 - Eastward

59904.72

## Deposited Dust - Year to Date

	Rhondda Road			Myrtle Street			Hillside Crescent			Rodgers Street			York Street		
	Total Insoluble Solids	Ash Fraction	% Ash	Total Insoluble Solids	Ash Fraction	% Ash	Total Insoluble Solids	Ash Fraction	% Ash	Total Insoluble Solids	Ash Fraction	% Ash	Total Insoluble Solids	Ash Fraction	% Ash
Units	g/m <sup>2</sup> /month	g/m <sup>2</sup> /month		g/m <sup>2</sup> /month	g/m <sup>2</sup> /month		g/m <sup>2</sup> /month	g/m <sup>2</sup> /month		g/m <sup>2</sup> /month	g/m <sup>2</sup> /month		g/m <sup>2</sup> /month	g/m <sup>2</sup> /month	
<b>EPA Approved Level</b>	<b>4.0</b>			<b>4.0</b>			<b>4.0</b>			<b>4.0</b>			<b>4.0</b>		
December 2021	0.7	0.4	57	1.0	0.5	50	0.7	0.3	43	0.7	0.4	57	1.2	0.7	58
February	0.3	0.2	67	0.4	0.2	50	0.4	0.2	50	0.5	0.3	60	0.4	0.4	100
March	0.6	0.2	33	0.5	0.2	40	0.8	0.2	25	0.5	0.2	40	0.9	0.5	56
April	0.3	0.2	67	0.2	0.1	50	0.4	0.1	25	0.2	0.2	100	0.4	0.3	75
May	0.3	0.1	33	0.4	0.3	75	0.4	0.2	50	0.2	0.1	50	0.8	0.6	75
June	0.4	0.2	50	0.3	0.2	67	0.1	0.1	100	0.2	0.2	100	0.5	0.4	80
July	1.8	0.7	39	0.5	0.3	60	0.1	0.1	100	0.7	0.4	57	0.7	0.4	57
August	0.9	0.6	67	1.0	0.7	70	0.1	0.1	100	0.6	0.5	83	0.4	0.3	75
September	1.2	0.7	58	0.9	0.4	44	0.1	0.1	100	0.6	0.3	50	0.6	0.4	67
October	1.9	0.8	42	2.0	0.7	35	0.7	0.4	57	1.0	0.5	50	1.8	0.9	50
November	0.8	0.3	38	1.4	0.8	57	0.2	0.1	50	1.4	0.8	57	1.1	0.5	45
December	0.8	0.4	50	0.5	0.3	60	1.1	0.4	36	0.4	0.4	100	1.2	0.7	58
<b>Annual Average</b>	<b>0.8</b>	0.4	50.1	<b>0.8</b>	0.4	54.8	<b>0.4</b>	0.2	61.3	<b>0.6</b>	0.4	67.0	<b>0.8</b>	0.5	66.4
<b>Annual Maximum</b>	<b>1.9</b>	0.8	67.0	<b>2.0</b>	0.8	75.0	<b>1.1</b>	0.4	100.0	<b>1.4</b>	0.8	100.0	<b>1.8</b>	0.9	100.0
<b>Annual Minimum</b>	<b>0.3</b>	0.1	33.0	<b>0.2</b>	0.1	35.0	<b>0.1</b>	0.1	25.0	<b>0.2</b>	0.1	40.0	<b>0.4</b>	0.3	45.0

Particulate Matter (PM<sub>10</sub>) - Year to Date

Date	PM <sub>10</sub> (µg/m <sup>3</sup> )	Monthly Average (µg/m <sup>3</sup> )	Year to Date Average (µg/m <sup>3</sup> )	24-Hr Criteria (µg/m <sup>3</sup> )	Comments
3/01/2021	10	18.0	10.0	50	
9/01/2021	5		7.5	50	
15/01/2021	37		17.3	50	
December 2021	18		17.5	50	
27/01/2021	20		18.0	50	
2/02/2021	11	10.0	16.8	50	
8/02/2021	6		15.2	50	
14/02/2021	12		14.8	50	
20/02/2021	7		14.0	50	
26/02/2021	14		14.0	50	
4/03/2021	9	9.0	13.5	50	
10/03/2021	14		13.6	50	
16/03/2021	8		13.1	50	
22/03/2021	6		12.6	50	
28/03/2021	8		12.3	50	
3/04/2021	5	11.1	11.9	50	
9/04/2021	10		11.7	50	
15/04/2021	17		12.0	50	
21/04/2021	14		12.1	50	
27/04/2021	10		12.0	50	
3/05/2021	11	8.0	12.0	50	
9/05/2021	10		11.9	50	
15/05/2021	8		11.7	50	
21/05/2021	10		11.6	50	
27/05/2021	2		11.2	50	
2/06/2021	15	9.2	11.4	50	
8/06/2021	12		11.4	50	
14/06/2021	6		11.2	50	
20/06/2021	12		11.2	50	
26/06/2021	2		10.9	50	
2/07/2021	9	7.5	10.8	50	
8/07/2021	6		10.7	50	
14/07/2021	8		10.6	50	
20/07/2021	6		10.5	50	
26/07/2021	9		10.4	50	
1/08/2021	35	15.1	11.1	50	
7/08/2021	10		11.1	50	
13/08/2021	12		11.1	50	
19/08/2021	18		11.3	50	
25/08/2021	3		11.0	50	
31/08/2021	13		11.1	50	
6/09/2021	8	13.9	11.0	50	
12/09/2021	24		11.3	50	
18/09/2021	14		11.4	50	
24/09/2021	16		11.5	50	
30/09/2021	8		11.4	50	
6/10/2021	16	13.3	11.5	50	
12/10/2021	7		11.4	50	
18/10/2021	15		11.4	50	
24/10/2021	13		11.5	50	
30/10/2021	16		11.6	50	
5/11/2021	9	10.6	11.5	50	
11/11/2021	10		11.5	50	
17/11/2021	10		11.5	50	
23/11/2021	6		11.4	50	
29/11/2021	17		11.5	50	
5/12/2021	12	10.3	11.5	50	
11/12/2021	9		11.5	50	
17/12/2021	12		11.5	50	
23/12/2021	13		11.5	50	
29/12/2021	5		11.4	50	
Minimum	2				
Maximum	35				
Average	11.1				
Standard Deviation	6.0				
24-hr Criteria	50				
Number of Exceedences	0				
Annual Average Criteria	25/30*				



**Water - Year to Date****EPL Point 4 : Monthly Monitoring**

	pH	EC	TSS	Oil & Grease	Comments
Units	pH Units	µS/cm	mg/L	mg/L	-
EPL Criterion*	6.5-8.5	NA	<50	10	-
December 2021	6.5-8.5	125-2200	<50	<5	-
January	7.18	1890	6	<5	-
February	7.11	1880	<5	<5	-
March	7.16	1800	8	6	-
April	7.07	1600	6	<5	-
May	7.12	1680	8	<5	-
June	7.49	1940	26	<5	-
July	7.32	1970	<5	<5	-
August	7.34	1960	<5	<5	-
September	7.30	2050	<5	<5	-
October	7.48	2180	8	<5	-
November	7.24	2080	<5	<5	-
December	7.13	1830	<5	<5	-

**EPL Point 5 : Monitoring During Discharge**

	pH	EC	TSS	Oil & Grease	Comments
Units	pH Units	µS/cm	mg/L	mg/L	-
EPL Criterion*	6.5-8.5	NA	<50	10	-
ANZECC Water Quality Limits	6.5-8.5	125-2200	<50	-	-
4/01/2021	7.24	862	6	<5	-
1/02/2021	7.40	921	<5	<5	-
11/02/2021	7.32	1140	<5	<5	-
1/04/2021	6.67	793	<5	<5	-
3/05/2021	6.83	771	<5	<5	-
25/11/2021	6.83	851	5	<5	-

## Flow Meter Records

EPA Identifier	Location	Description	Date	Monthly Total (ML)
4	Adit Dam	Water pumped from Adit Dam to Dam G (processing use)	4/01/2021 - 1/02/2021	80.9
			1/02/2021 - 1/03/2021	94.8
			1/03/2021 - 1/04/2021	88.5
			1/04/2021 - 3/05/2021	91.4
			3/05/2021 - 1/06-2021	107.8
			1/06/2021 - 1/07/2021	91.8
			1/07/2021 - 2/08/2021	92.9
			2/08/2021 - 1/09/2021	99.0
			1/092021 - 1/10/2021	115.5
			1/10/2021 - 1/11/2021	116.8
			1/11/2021 - 1/12/2021	126.8
			1/12/2021 - 4/12/2022	107.7

EPA Identified	Location	Description	Date	Monthly Total (ML)
5	Dam B	Discharge from Dam B (from Quarry)	4/01/2021 - 1/02/2021	0.0
			1/02/2021 - 1/03/2021	0.0
			1/03/2021 - 1/04/2021	28.3
			1/04/2021 - 3/05/2021	3.7
			3/05/2021 - 1/06-2021	0.0
			1/06/2021 - 1/07/2021	0.0
			1/07/2021 - 2/08/2021	0.0
			2/08/2021 - 1/09/2021	0.0
			1/09/2021 - 1/10/2021	0.0
			1/10/2021 - 1/11/2021	0.0
			1/11/2021 - 1/12/2021	2.2
			1/12/2021 - 4/12/2022	0.0

EPA Identified	Location	Description	Date	Monthly Total (ML)
4	Adit Dam	Adit Dam to Creek (off site)	4/01/2021 - 1/02/2021	33.5
			1/02/2021 - 1/03/2021	94.9
			1/03/2021 - 1/04/2021	271.1
			1/04/2021 - 3/05/2021	142.1
			3/05/2021 - 1/06-2021	65.7
			1/06/2021 - 1/07/2021	74.1
			1/07/2021 - 2/08/2021	29.1
			2/08/2021 - 1/09/2021	28.1
			1/092021 - 1/10/2021	30.5
			1/10/2021 - 1/11/2021	37.6
			1/11/2021 - 1/12/2021	69.4
			1/12/2021 - 4/12/2022	118.5

# Metromix Teralba Quarry Daily Rainfall 2021

Date	Daily Rainfall (mm)											
	January	February	March	April	May	June	July	August	September	October	November	December
1	10.2	0.0	0	0.8	0	0	2.6	0	0	13	0	0.2
2	3	8.2	0	0.2	0	0	0.2	0	0	0	0	0.2
3	0.4	0.0	8.2	0	0	15.6	0	1.8	0	0	0	0
4	13.4	0.0	2.2	0	4.8	0	0	0	1.2	0	2.4	0.4
5	0.4	0.0	0	0	0.2	0	0	0	1.2	0	0.2	1.6
6	0.6	6.8	0	0.8	10.6	0	0	0	0	0	0.2	0
7	2.2	0.6	0	12	3.4	0	0	0	0	0	9.8	1
8	0.6	0.0	1.6	3.4	0	5.8	0	3.2	0	0	4.4	7.6
9	7.4	0.0	7.2	0	1	1.6	4	0.2	0	0	0	2.4
10	0	2.4	0.2	0.4	0	4.4	9.6	0	0	28.2	15	1.2
11	0	0.0	0	0	0.4	0	1.6	0	0	16.4	25.6	0
12	0	0.0	0	0	0	0	0.4	0.6	0	26.4	55.6	0
13	0	34.4	0	0	0	0	1.2	0	0.6	9.6	0	0
14	14.2	0.0	48.8	0	0.2	0	0.2	0	31	8	0	0
15	0.6	13.6	0.2	0	0	0	1	0	0	0	0	0
16	0	14.2	6.2	0.4	0	1.6	0.6	0	0.6	0	0	4.6
17	0	2.6	0.6	5.8	0	0	0	0	0	0	0	0
18	0	15.6	90.4	0.2	0	0	0	3.4	0.2	0	0	0
19	0.8	9.0	28.4	0	0	3.8	0	0	0	2.8	0.8	0
20	2	0.4	47.8	0	0	10.2	0	0	0	1	6.6	0.2
21	0.2	6.0	65	0	3.2	0.6	0	0.2	1	0	47.6	0
22	0	1.8	22.8	0	0	0.4	0	0	0	0	14.2	0
23	0	12.8	21.8	0	0	0.2	0	3.6	0	3.4	3.8	15.2
24	0	4.6	0.2	0	0.6	0	0	50.8	0	0	3	0
25	0	0.0	0	0	0.2	0.2	0	0	3.8	0	21.6	0
26	0	0.2	0	0	0	0	0	0	2.6	0	49.6	0
27	12.6	1.6	0	0	0	0	0	0	0	0	14.8	21
28	40.8	0.2	0	0	0	2	1	0	0	0	2.6	24.6
29	11.2		0	0	0	8.6	0	0	2.2	0	0	3.6
30	9.4		9.4	0	0.4	0.2	0	0	1.8	5.4	2.4	0
31	0		1.8		0		0	0		0		0
Monthly Total	130.0	135.0	362.8	24.0	25.0	55.2	22.4	63.8	46.2	114.2	280.2	83.8
											Annual Total:	1342.6



**METROMIX**



14 September 2021

Ref: 8413/9388

**Metromix Pty Ltd**  
150 Rhondda Road  
Teralba NSW 2284

### AUGUST 2021 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 16<sup>th</sup> and finishing on Wednesday 18<sup>th</sup> of August, 2021. 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, 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 Locations EPL-A, B, D, E and H.

Further to this, location EPL-C and EPL-F have been omitted from the noise monitoring programme given they are not required as other monitoring locations are nearby and closer to quarry related noise sources. This has been recognised by the EPA by the removal of these locations from the monitoring locations detailed in EPL 536. **Table 1** lists the address and coordinates of each noise monitoring location, with the relevant monitoring locations that were monitored during the August 2020 period highlighted in **bold**. The locations are shown on the figure in **Appendix I**.

Table 1			
Noise Monitoring Locations (from PA 10-0183)			
Location in EPL	Address	Easting	Northing
<b>EPL-A</b>	<b>Awaba Street, Teralba</b>	<b>369080</b>	<b>3651470</b>
<b>EPL-B<sup>1</sup></b>	<b>Rhondda Road, Teralba</b>	<b>369250</b>	<b>6351915</b>
EPL-C	Rhondda Road, Teralba <sup>2</sup>	369205	6352015
<b>EPL-D</b>	<b>Rhondda Road, Teralba</b>	<b>369150</b>	<b>6352135</b>
<b>EPL-E</b>	<b>Victoria Avenue, Teralba</b>	<b>369060</b>	<b>6352620</b>
EPL-F	Victoria Avenue, Teralba <sup>2</sup>	369130	6352945
<b>EPL-H</b>	<b>School Road, Wakefield</b>	<b>366210</b>	<b>6352520</b>

1. See text in relation to changes to monitoring location
2. Metromix has obtained permission for this monitoring location to be omitted.

It is noted that during the period when monitoring is undertaken at Location B, 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 Location B has previously told Metromix that they didn't want monitoring to be done 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.

Condition	Requirement																																			
L5.2	The licensee must ensure that noise generated by the activities within the premises do not exceed the following criteria measured by dB(A) at any residence or privately owned land.																																			
	<table><tr><th>Location</th><th>Day Shoulder 6:00am - 7:00am</th><th>Day 7:00am - 6:00pm</th><th>Evening 6:00pm – 10:00pm</th><th>Night 10:00pm – 6:00am</th></tr><tr><td></td><td>L<sub>Aeq</sub> (15 minute)</td><td>L<sub>Aeq</sub> (15 minute)</td><td>L<sub>Aeq</sub> (15 minute)</td><td>L<sub>Aeq</sub> (15 minute)</td></tr><tr><td>EPL-A</td><td>38</td><td>38</td><td>37</td><td>L<sub>A1</sub>(1min) 35 45</td></tr><tr><td>EPL-B</td><td>42</td><td>46</td><td>36</td><td>35 45</td></tr><tr><td>EPL-C</td><td>42</td><td>42</td><td>35</td><td>35 45</td></tr><tr><td>EPL-D, EPL-E, EPL-H</td><td>35</td><td>35</td><td>35</td><td>35 45</td></tr><tr><td>EPL-F</td><td>37</td><td>38</td><td>38</td><td>35 45</td></tr></table>	Location	Day Shoulder 6:00am - 7:00am	Day 7:00am - 6:00pm	Evening 6:00pm – 10:00pm	Night 10:00pm – 6:00am		L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	EPL-A	38	38	37	L <sub>A1</sub> (1min) 35 45	EPL-B	42	46	36	35 45	EPL-C	42	42	35	35 45	EPL-D, EPL-E, EPL-H	35	35	35	35 45	EPL-F	37	38	38	35 45
	Location	Day Shoulder 6:00am - 7:00am	Day 7:00am - 6:00pm	Evening 6:00pm – 10:00pm	Night 10:00pm – 6:00am																															
		L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)																															
	EPL-A	38	38	37	L <sub>A1</sub> (1min) 35 45																															
	EPL-B	42	46	36	35 45																															
	EPL-C	42	42	35	35 45																															
	EPL-D, EPL-E, EPL-H	35	35	35	35 45																															
	EPL-F	37	38	38	35 45																															
	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 landholder from the above 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 EPL 536 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:																																			

	<div><div><div>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.</div><div>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 <i>NSW industrial Noise Policy (EPA 2000)</i></div></div><div>Note: The weather station must be designed, commissioned and operated in a manner to obtain the necessary parameters required under the above condition.</div></div>																
L5.7	<div>To determine compliance:</div> <div><div>1. With the <math>L_{Aeq(15\text{ min})}</math> noise limits in condition L5.2, the licensee must locate noise monitoring equipment;</div><div><div>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,</div><div>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</div><div>c) within approximately 50 metres if the boundary of a national park or nature reserve.</div></div><div>2. With the <math>LA1(1\text{ minute})</math> noise limits in condition L5.2, the noise monitoring equipment must be located within 1 metre of a dwelling facade.</div><div>3. With the noise limits in condition L5.2, the noise monitoring equipment must be located;</div><div><div>a) at the most affected point at a location where there is no dwelling at the location, or</div><div>b) at the most affected point within an area at a location prescribed by conditions L5.7 1(a) or L5.7 1(b).</div></div></div>																
L5.8	<div>A non-compliance will still occur where noise generated from the premises in excess of the appropriate noise limit is measured:</div> <div><div>a) at a location other than an area prescribed by the conditions of this licence, and /or</div><div>b) at a point other than the most affected point at a location.</div></div>																
L5.9	<div>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.</div>																
L5.10	<div>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.</div>																
L7.1	<div>The licensee must comply with the operating hours specified in Column 2, Column 3, and Column 4 of the table below:</div> <table><tr><th>Day</th><th>Loading and Dispatch of Quarry Trucks</th><th>Extraction and Processing</th><th>Receipt of Concrete</th></tr><tr><td>Monday - Friday</td><td>4:00am Monday to midnight Friday</td><td>7:00am to 7:00pm</td><td>7:00am to 5:00pm</td></tr><tr><td>Saturday</td><td>Midnight Friday to 6:00pm Saturday</td><td>7:00am to 2:00pm</td><td>7:00am to 2:00pm</td></tr><tr><td>Sundays and Public Holidays</td><td>None</td><td>none</td><td>none</td></tr></table> <div><div>Note: Maintenance activities may occur at any time provided they are inaudible at privately-owned residence.</div><div>*VENM = Virgin Excavated Natural Material</div><div>**ENM = Excavated Natural Material</div></div>	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
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														

## 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	2 times a year	1.5 hours	3 consecutive operation days
Evening	2 times a year	30 minutes	3 consecutive operation days
Night	2 times a year	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 9 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 INP ‘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.

At the time of the noise monitoring survey there were limitations placed on the movement of people in the area due to the impacts of COVID 19. From an acoustic point of view this meant that there was less road and rail traffic than would typically be the case (relative to previous noise monitoring). There was also less contribution to the acoustic environment from noise from other industries in the area.

### 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 – 16 August 2021 (Night)					
Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
A	5:35 am	47	35	0.6 / 359	Traffic (46), birds (40), industrial noise (36), <b>TQ (25)<sup>1</sup></b>
B	4:30 am	49	35	1.9 / 0	Traffic (48), frogs (42), rooster (37), trains (29), <b>TQ inaudible</b>
D	4:30 am	40	35	1.9 / 348	Traffic (40), <b>TQ inaudible</b>
E	5:35 am	50	35	2.2 / 325	Birds (50), traffic (33), <b>TQ inaudible</b>
H	5:00 am	48	35	2.3 / 310	Traffic (45), birds (45), <b>TQ inaudible</b>
Notes: 1. Trucks on access road.					



Table 3 Teralba Quarry Noise Monitoring Results – 16 August 2021 (Day Shoulder)					
Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
A	6:35 am	47	38	2.2 / 323	Birds (45), traffic (42), trains (34), industrial noise (31), <b>TQ (28)</b>
B	6:23 am	49	42	1.0 / 14	Traffic (47), industrial noise (43), <b>TQ (31)<sup>1</sup></b>
D	6:45 am	54	35	2.2 / 354	Traffic (54), birds (42), <b>TQ inaudible</b>
E	6:35 am	52	35	3.3 / 331	Birds (52), traffic (35), <b>TQ inaudible</b>
H	6:01 am	45	35	0.5 / 316	Traffic (43), birds (40), <b>TQ inaudible</b>
Notes: 1. Trucks on access road.					

Table 4 Teralba Quarry Noise Monitoring Results – 16 August 2021 (Day)					
Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
A	7:00 am	49	38	1.8 / 335	Birds (46), traffic (46), <b>TQ (33)</b> , industrial noise (31)
B	8:35 am	56	46	0.9 / 275	Traffic (53), birds (53), trains (37), industrial noise (35), <b>TQ (33)<sup>1</sup></b>
D	7:00 am	51	35	2.1 / 322	Birds (50), traffic (42), <b>TQ (38)</b>
E	9:15 am	51	35	2.9 / 304	Birds (50), traffic (42), <b>TQ (38)</b>
H	4:29 pm	48	35	2.7 / 266	Birds (47), traffic (38), <b>TQ inaudible</b>
Notes: 1. Trucks on access road					

Table 5 Teralba Quarry Noise Monitoring Results – 16 August 2021 (Evening)					
Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
A	8:31 pm	46	37	3.0 / 238	Trains (44), industrial noise (39), <b>TQ inaudible</b>
B	7:15 pm	49	36	2.0 / 236	Traffic (47), trains (42), <b>TQ inaudible</b>
D	6:41 pm	50	35	2.9 / 342	Traffic (50), birds (39), <b>TQ inaudible</b>
E	7:53 pm	38	35	2.7 / 271	Traffic (37), birds (30), <b>TQ inaudible</b>
H	6:01 pm	36	35	1.3 / 211	Birds (34), Traffic (31), <b>TQ inaudible</b>

Table 6 Teralba Quarry Noise Monitoring Results – 17 August 2021 (Night)					
Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
A	5:35 am	46	35	0.6 / 209	Birds (44), traffic (41), industrial noise (28), <b>TQ (22)</b>
B	4:30 am	57	35	1.2 / 248	Frogs (55), traffic (50), trains (47), rooster (42), <b>TQ inaudible</b>
D	4:30 am	36	35	1.1 / 270	Traffic (36), <b>TQ inaudible</b>
E	5:35 am	41	35	0.7 / 295	Birds (40), traffic (35), <b>TQ inaudible</b>
H	5:00 am	44	35	0.6 / 269	Traffic (41), birds (39), <b>TQ inaudible</b>

**Table 7**  
**Teralba Quarry Noise Monitoring Results – 17 August 2021 (Day Shoulder)**

Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
A	6:35 am	50	38	1.1 / 351	Birds (49), traffic (42), industrial noise (27), <b>TQ (30)</b>
B	6:23 am	46	42	0.8 / 326	Traffic (44), industrial noise (40), <b>TQ (26)<sup>1</sup></b>
D	6:46 am	53	35	0.9 / 300	Traffic (51), birds (45), <b>TQ (38)</b>
E	6:35 am	45	35	0.6 / 318	Birds (42), trains (40), traffic (36), <b>TQ (25)</b>
H	6:01 am	45	35	1.1 / 315	Birds (42), traffic (41), <b>TQ inaudible</b>

Note: 1 Trucks on access road

**Table 8**  
**Teralba Quarry Noise Monitoring Results – 17 August 2021 (Day)**

Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
A	7:00 am	51	38	1.0 / 322	Traffic (50), birds (45), <b>TQ (31)<sup>1</sup></b> , industrial noise (24)
B	8:35 am	59	46	2.3 / 340	Traffic (57), birds (54), industrial noise (43), <b>TQ inaudible</b>
D	7:00 am	51	35	0.5 / 312	Birds (48), traffic (46), <b>TQ (40)</b>
E	8:35 am	40	35	1.5 / 297	Birds (38), traffic (32), <b>TQ (28)</b>
H	4:30 pm	47	35	1.0 / 62	Birds (44), traffic (43), <b>TQ inaudible</b>

Note: 1 Trucks on access road

**Table 9**  
**Teralba Quarry Noise Monitoring Results – 17 August 2021 (Evening)**

Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
A	8:28 pm	42	37	0.4 / 218	Trains (41), Dog (33), <b>TQ barely audible</b>
B	7:10 pm	51	36	0.4 / 276	Traffic (48), birds (48), <b>TQ inaudible</b>
D	6:36 pm	52	35	0.5 / 320	Traffic (52), <b>TQ (37)</b>
E	7:47 pm	39	35	0.4 / 193	Traffic (36), birds (35), <b>TQ inaudible</b>
H	6:00 pm	42	35	0.1 / 306	Traffic (40), birds (38), <b>TQ inaudible</b>

**Table 10**  
**Teralba Quarry Noise Monitoring Results – 18 August 2021 (Night)**

Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
A	5:35 am	49	35	1.1 / 229	Insects (46), traffic (45), birds (36), <b>TQ inaudible</b>
B	4:30 am	58	35	0.6 / 172	Trains (57), insects (41), traffic (46), <b>TQ inaudible</b>
D	4:30 am	38	35	1.0 / 208	Traffic (38), birds (25), <b>TQ inaudible</b>
E	5:35 am	45	35	1.3 / 255	Birds (45), traffic (32), <b>TQ inaudible</b>
H	5:01 am	46	35	0.8 / 205	Traffic (44), birds (39), <b>TQ inaudible</b>

Table 11 Teralba Quarry Noise Monitoring Results – 18 August 2021 (Day Shoulder)					
Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
A	6:35 am	52	38	0.6 / 208	Traffic (50), birds (48), industrial noise (28), <b>TQ inaudible</b>
B	6:43 am	47	42	1.5 / 257	Traffic (45), industry (42), train (36), <b>TQ inaudible</b>
D	6:24 am	51	35	0.6 / 208	Traffic (50), birds (40), <b>TQ (37)</b>
E	6:35 am	48	35	1.4 / 270	Birds (48), traffic (32), <b>TQ (28)</b>
H	6:00 am	48	35	1.9 / 240	Birds (46), traffic (44), <b>TQ inaudible</b>

Table 12 Teralba Quarry Noise Monitoring Results – 18 August 2021 (Day)					
Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
A	7:00 am	48	38	1.5 / 237	Birds (47), traffic (42), <b>TQ (27)</b>
B	8:35 am	51	46	2.4 / 263	Traffic (50), birds (43), <b>TQ (34)<sup>1</sup></b>
D	7:00 am	47	35	1.4 / 244	Birds (45), traffic (38), <b>TQ (38)</b> , other industry (30)
E	8:35 am	42	35	1.2 / 193	Birds (42), <b>TQ (32)</b> , traffic (39)
H	4:31 pm	44	35	0.3 / 116	Birds (42), traffic (28), <b>TQ inaudible</b>
Note: 1 Trucks on access road					

Table 13 Teralba Quarry Noise Monitoring Results – 18 August 2021 (Evening)					
Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
A	8:29 pm	48	37	1.1 / 344	Traffic (47), trains (41), <b>TQ inaudible</b>
B	7:13 pm	45	36	0.9 / 279	Traffic (43), trains (39), <b>TQ inaudible</b>
D	6:38 pm	50	35	0.4 / 44	Traffic (50), birds (36), <b>TQ (32)</b>
E	7:50 pm	39	35	0.4 / 304	Birds (37), traffic (32), <b>TQ inaudible</b>
H	6:01 pm	44	35	0.6 / 99	Traffic (42), birds (40), <b>TQ (&lt;20)</b>

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 exceeded the relevant criterion at Location D throughout the survey and at Location E during the day on 16 August. Visual inspection of the quarry from Rhondda Road, at these times, identified significant extraction equipment operating at natural ground level, and haul trucks transporting material on a haul road, on the southern edge of the extraction area.

All of the measured transport noise was attributed to TQ. It is understood, however, that, during the entire monitoring period, a nearby coal mine was transporting fly ash, in trucks, along a haul road to the west of TQ. The road in use passes through sections of the TQ lease area. Noise from trucks using this haul road would be of similar character to the noise from transport activity in the quarry and it would not be possible to determine the relative contributions of each to the total received noise.

Monitoring location EPL-B 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 the EPL-B location, 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 Location B in Tables 2 to 13.

At location EPL-D 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.

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 the NSW Industrial Noise Policy.

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 L4.1* 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 façade 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**.

<b>Table 14</b> <b>Teralba Quarry (L1 (1min)) Noise Monitoring Results – 16 August 2021 (Night)</b>					
Location	Time	dB(A), L <sub>1</sub> (1minute)	Wind speed (m/s) / direction	LA1 source	Identified Quarry Sources (L <sub>1</sub> (1 min))
A	5:35 am	64	0.6 / 359	Traffic	n/a
B	4:30 am	67	1.9 / 0	Traffic	n/a
D	4:30 am	50	1.9 / 348	Traffic	n/a
E	5:35 am	58	2.2 / 325	Birds	n/a
H	5:00 am	57	2.3 / 310	Birds	n/a

Table 15 Teralba Quarry (L1 (1min)) Noise Monitoring Results – 17 August 2021 (Night)					
Location	Time	dB(A), L <sub>1</sub> (1minute)	Wind speed (m/s) / direction	L <sub>A1</sub> source	Identified Quarry Sources (L <sub>1</sub> (1 min))
A	5:35 am	63	0.6 / 209	Traffic	n/a
B	4:30 am	65	1.2 / 248	Traffic	n/a
D	4:30 am	53	1.1 / 270	Traffic	n/a
E	5:35 am	54	0.7 / 295	Birds	n/a
H	5:00 am	54	0.6 / 269	Birds	n/a

Table 16 Teralba Quarry (L1 (1min)) Noise Monitoring Results – 18 August 2021 (Night)					
Location	Time	dB(A), L <sub>1</sub> (1minute)	Wind speed (m/s) / direction	L <sub>A1</sub> source	Identified Quarry Sources (L <sub>1</sub> (1 min))
A	5:35 am	69	1.1 / 229	Traffic	n/a
B	4:30 am	80	0.6 / 172	Train	n/a
D	4:30 am	62	1.0 / 208	Train	n/a
E	5:35 am	55	1.3 / 255	Birds	n/a
H	5:01 am	56	0.8 / 205	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 exceeded its noise limits at some locations during the survey, most likely due to heavy equipment operating at the highest point in the extraction area. The quarrying in this location was to be of relatively short duration 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:



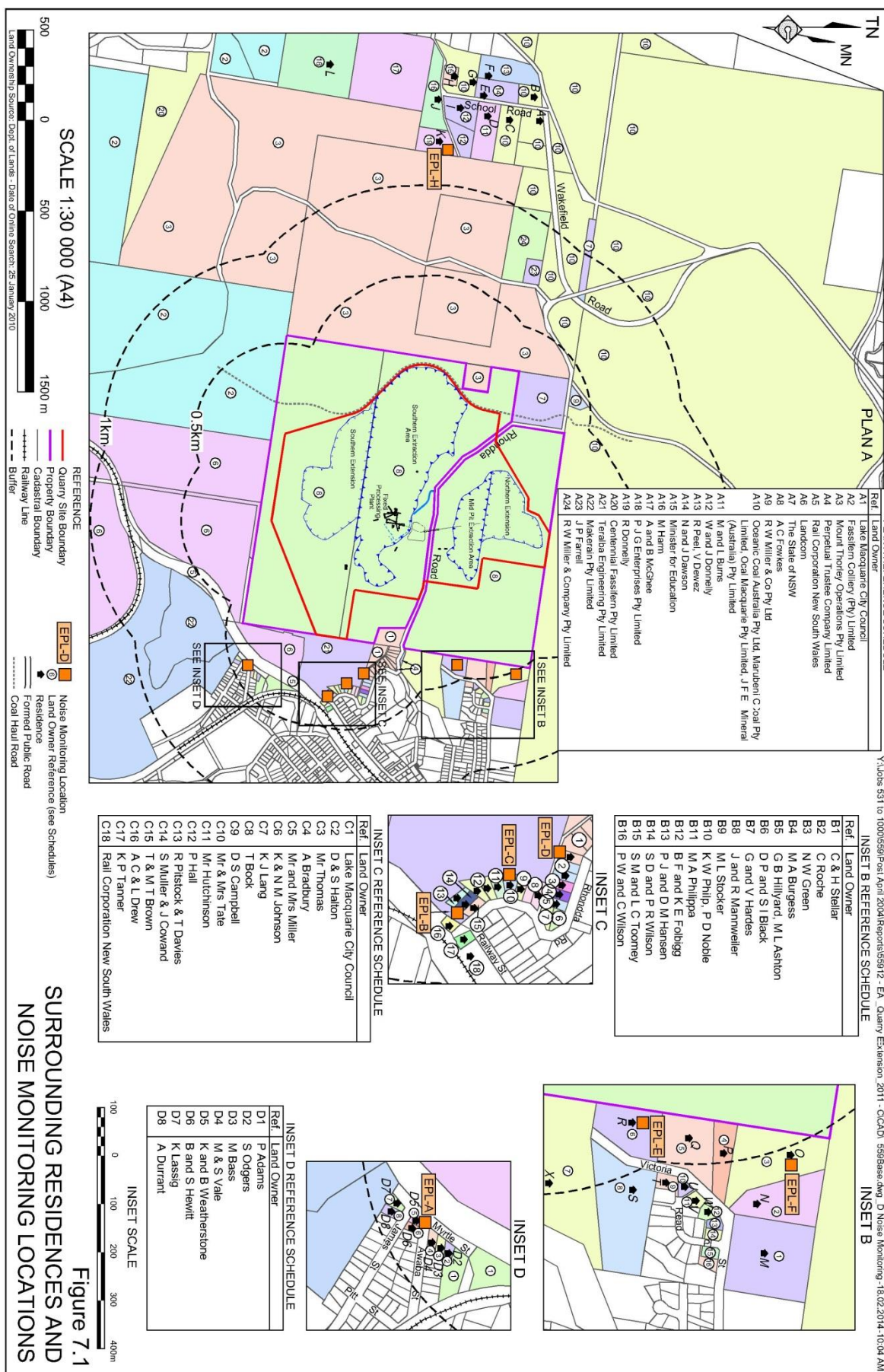
**Neil Pennington MAIP, MAAS**  
Acoustical Consultant

Review:



**Ross Hodge MAAS**  
Acoustical Consultant







Location EPL – B Modified noise monitoring location



3 November 2021

Ref: 8413/29569

**Metromix Pty Ltd**  
150 Rhondda Road  
Teralba NSW 2284

### **ADDITIONAL NOISE MONITORING RESULTS, NOVEMBER 2021 – TERALBA QUARRY**

This letter report presents the results of attended noise monitoring conducted for the Metromix operated Teralba Quarry (TQ) during the day-shoulder and day periods on Tuesday 2<sup>nd</sup> and Wednesday 3<sup>rd</sup> of November, 2021. Noise monitoring was carried out generally in accordance with the conditions of the TQ Noise Management Plan (NMP) as shown in extract on page 2 (referenced from EPL 536).

During the previous noise compliance monitoring for the quarry, in August 2021, the noise criterion was exceeded at two locations (EPL – D and EPL – E) during the day-shoulder and day time monitoring periods. Noise from mobile crushing activities were identified as the source of the elevated noise levels.

The current, follow up, noise monitoring was undertaken whilst similar mobile crushing activities were underway, but with a series of management measures in place to minimise the potential for noise emissions to create adverse impacts.

**Table 1** lists the address and coordinates of the noise monitoring locations detailed in the NMP, with the relevant monitoring locations that were monitored during the November 2021 period highlighted in **bold**. The locations are shown on the figure in **Appendix I**.

<b>Table 1</b>			
<b>Noise Monitoring Locations (from PA 10-0183)</b>			
<b>Location in EPL</b>	<b>Address</b>	<b>Easting</b>	<b>Northing</b>
EPL-A	Awaba Street, Teralba	369080	3651470
EPL-B	Rhondda Road, Teralba	369250	6351915
EPL-C	Rhondda Road, Teralba	369205	6352015
<b>EPL-D</b>	<b>Rhondda Road, Teralba</b>	<b>369150</b>	<b>6352135</b>
<b>EPL-E</b>	<b>Victoria Avenue, Teralba</b>	<b>369060</b>	<b>6352620</b>
EPL-F	Victoria Avenue, Teralba	369130	6352945
EPL-H	School Road, Wakefield	366210	6352520



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

Condition	Requirement																																			
L5.2	<p>The licensee must ensure that noise generated by the activities within the premises do not exceed the following criteria measured by dB(A) at any residence or privately owned land.</p> <table><tr><th>Location</th><th>Day Shoulder 6:00am - 7:00am</th><th>Day 7:00am - 6:00pm</th><th>Evening 6:00pm – 10:00pm</th><th>Night 10:00pm – 6:00am</th></tr><tr><td></td><td>L<sub>Aeq</sub> (15 minute)</td><td>L<sub>Aeq</sub> (15 minute)</td><td>L<sub>Aeq</sub> (15 minute)</td><td>L<sub>Aeq</sub> (15 minute) L<sub>A1</sub>(1min)</td></tr><tr><td>EPL-A</td><td>38</td><td>38</td><td>37</td><td>35 45</td></tr><tr><td>EPL-B</td><td>42</td><td>46</td><td>36</td><td>35 45</td></tr><tr><td>EPL-C</td><td>42</td><td>42</td><td>35</td><td>35 45</td></tr><tr><td>EPL-D, EPL-E, EPL-H</td><td>35</td><td>35</td><td>35</td><td>35 45</td></tr><tr><td>EPL-F</td><td>37</td><td>38</td><td>38</td><td>35 45</td></tr></table> <p>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 landholder from the above table.</p>	Location	Day Shoulder 6:00am - 7:00am	Day 7:00am - 6:00pm	Evening 6:00pm – 10:00pm	Night 10:00pm – 6:00am		L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute) L <sub>A1</sub> (1min)	EPL-A	38	38	37	35 45	EPL-B	42	46	36	35 45	EPL-C	42	42	35	35 45	EPL-D, EPL-E, EPL-H	35	35	35	35 45	EPL-F	37	38	38	35 45
Location	Day Shoulder 6:00am - 7:00am	Day 7:00am - 6:00pm	Evening 6:00pm – 10:00pm	Night 10:00pm – 6:00am																																
	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute) L <sub>A1</sub> (1min)																																
EPL-A	38	38	37	35 45																																
EPL-B	42	46	36	35 45																																
EPL-C	42	42	35	35 45																																
EPL-D, EPL-E, EPL-H	35	35	35	35 45																																
EPL-F	37	38	38	35 45																																
L5.3	<p>For the purposes of Condition L5.2:</p> <ul style="list-style-type: none"><li>a) Day-Shoulder is defined as the period between 6am to 7am Monday to Saturday.</li><li>b) Day is defined as:<ul style="list-style-type: none"><li>a. the period from 7am to 6pm Monday to Saturday; and</li><li>b. the period from 8am to 6pm Sundays and Public Holidays.</li></ul></li><li>c) Evening is defined as the period from 6pm to 10pm.</li><li>d) Night is defined as:<ul style="list-style-type: none"><li>a. the period from 10pm to 7am Monday to Saturday; and</li><li>b. the period from 10pm to 8am Sundays and Public Holidays.</li></ul></li></ul>																																			
L5.4	<p>The contributed noise level from the premises must not exceed the noise limits specified within EPL 536 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.</p>																																			
L5.5	<p>The noise limits set out in conditions L5.2 apply under all meteorological conditions except for anyone of the following:</p> <ul style="list-style-type: none"><li>a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or</li><li>b) Stability category F temperature inversion conditions and wind speeds greater the 2 metres/second at 10 metres above ground level; or</li><li>c) Stability category G temperature inversion conditions.</li></ul>																																			
L5.6	<p>For the purpose of condition L5.5:</p> <ul style="list-style-type: none"><li>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.</li><li>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 <i>NSW industrial Noise Policy (EPA 2000)</i></li></ul> <p>Note: The weather station must be designed, commissioned and operated in a manner to obtain the necessary parameters required under the above condition.</p>																																			
L5.7	<p>To determine compliance:</p> <ul style="list-style-type: none"><li>1. With the L<sub>Aeq</sub>(15 min) noise limits in condition L5.2, the licensee must locate noise monitoring equipment;<ul style="list-style-type: none"><li>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,</li></ul></li></ul>																																			

	<p>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</p> <p>c) within approximately 50 metres if the boundary of a national park or nature reserve.</p> <p>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.</p> <p>3. With the noise limits in condition L5.2, the noise monitoring equipment must be located;</p> <p>a) at the most affected point at a location where there is no dwelling at the location, or</p> <p>b) at the most affected point within an area at a location prescribed by conditions L5.7 1(a) or L5.7 1(b).</p>																
L5.8	<p>A non-compliance will still occur where noise generated from the premises in excess of the appropriate noise limit is measured:</p> <p>a) at a location other than an area prescribed by the conditions of this licence, and /or</p> <p>b) at a point other than the most affected point at a location.</p>																
L5.9	<p>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.</p>																
L5.10	<p>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.</p>																
L7.1	<p>The licensee must comply with the operating hours specified in Column 2, Column 3, and Column 4 of the table below:</p> <table><tr><th>Day</th><th>Loading and Dispatch of Quarry Trucks</th><th>Extraction and Processing</th><th>Receipt of Concrete</th></tr><tr><td>Monday - Friday</td><td>4:00am Monday to midnight Friday</td><td>7:00am to 7:00pm</td><td>7:00am to 5:00pm</td></tr><tr><td>Saturday</td><td>Midnight Friday to 6:00pm Saturday</td><td>7:00am to 2:00pm</td><td>7:00am to 2:00pm</td></tr><tr><td>Sundays and Public Holidays</td><td>None</td><td>none</td><td>none</td></tr></table> <p>Note: Maintenance activities may occur at any time provided they are inaudible at privately-owned residence.</p> <p>*VENM = Virgin Excavated Natural Material</p> <p>**ENM = Excavated Natural Material</p>	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
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														

## 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.

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Assessment period	Minimum frequency in a reporting period	Minimum duration within assessment period	Minimum number of assessment period
Day	2 times a year	1.5 hours	3 consecutive operation days
Evening	2 times a year	30 minutes	3 consecutive operation days
Night	2 times a year	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 9 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 INP ‘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.

The measured noise levels are shown in the tables of results below. Quarry noise from TQ is shown in bold type.

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 5**. 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.

Table 2 Teralba Quarry Noise Monitoring Results – 2 November 2021 (Day Shoulder)					
Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
D	6:35 am	54	35	0.3 / 152	Traffic (51), birds (51), <b>TQ inaudible</b>
E	6:15 am	50	35	0.3 / 152	Birds (50), traffic (38), domestic noise (35), <b>TQ inaudible</b>

Table 3 Teralba Quarry Noise Monitoring Results – 2 November 2021 (Day)					
Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
D	7:00 am	50	35	0.4 / 172	Birds (47), traffic (46), other industry (40), <b>TQ occasionally audible (&lt;20)</b>
E	7:00 am	47	35	0.4 / 172	Birds (46), traffic (36), domestic noise, (36), <b>TQ inaudible</b>

Table 4 Teralba Quarry Noise Monitoring Results – 3 November 2021 (Day Shoulder)					
Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
D	6:15 am	46	35	1.2 / 32	Birds (46), traffic (32), <b>TQ inaudible</b>
E	6:35 am	52	35	1.2 / 32	Birds (52), traffic (35), <b>TQ inaudible</b>

Table 5 Teralba Quarry Noise Monitoring Results – 3 November 2021 (Day)					
Location	Start Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed (m/s) / direction	Identified Noise Sources (Leq (15 min))
D	7:00 am	48	35	1.8 / 46	Traffic (46), birds (42), other industry (30), <b>TQ occasionally audible (&lt;20)</b>
E	7:00 am	48	35	1.8 / 46	Birds (48), traffic (30), <b>TQ inaudible</b>

The results shown in Tables 2 to 5 show that, under the operational and atmospheric conditions at the time of monitoring, noise emissions from TQ did not exceed the relevant criterion at either Location D or E throughout the survey.

Visual inspection of the quarry from Rhondda Road, at these times, identified that the quarry was operating as detailed previously in this report.

The quarry was occasionally audible during the day time period, on both days, at Location D as engine revs and low level hum. This noise was not loud, or consistent, enough to be accurately measurable. The noise level was less than 20 dB(A) Leq (15 min). The quarry was not audible at this location during the day-shoulder period.

At this location noise from other industries within the vicinity, and trains, also contributed to the acoustic environment. Due to the intermittent nature of the noise from these sources the noise from them could be isolated from the worst case 15 minute periods (in relation to quarry noise).

At Location E the noise from the quarry was inaudible during each period on either day.

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 L4.1* 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 façade 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 noise from the quarry was inaudible at each monitoring location during the night time period (day-shoulder in this reporting) and, therefore, the noise from TQ did not exceed the sleep disturbance criterion.

In summary, the results of this follow up noise monitoring programme have shown that TQ did not exceed its noise limits at the monitored locations during the survey.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 0412 023 455.

Yours faithfully,

**SPECTRUM ACOUSTICS PTY LIMITED**

Author:



**Ross Hodge MAAS**

Acoustical Consultant



