

TARRAWONGA COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 12365

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=55113&SYSUID=1&LICID=12365>

Licensee: Tarrawonga Coal Pty Ltd

Licensee Address: Tarrawonga Coal Mine, 469 Goonbri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: December 2023

Obtained Date: 10/12/2023

Publication Date: 14/12/2023

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date of Max. Value Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
6	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date of Max. Value Obtained	Min Value	Max or Only Value	100%ile Limit	Exceed-ance (Yes/No)	Comment/s
1	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
2	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
3	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
24	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date of Max. Value Obtained	Min Value	Max or Only Value	100%ile Limit	Exceed-ance (Yes/ No)	Comment/s
	pH	pH		-	-	-	-	-	-	-	
26	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	μS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
27	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	μS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	

Table 3 – Monitoring (Quarterly & 6 Monthly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date of Max. Value Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	-	-	-	-	-	-	-
	Lead	mg/L		-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	
	Standing Water Level	metres		-	-	-	-	-	-	
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	-	-	-	-	-	-	-
	Lead	mg/L		-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	
	Standing Water Level	metres		-	-	-	-	-	-	
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	-	-	-	-	-	-	-
	Lead	mg/L		-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	
	Standing Water Level	metres		-	-	-	-	-	-	
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	1	12/12	12/12				3300
	Oil & Grease	mg/L		1	12/12	12/12				<5
	pH	pH		1	12/12	12/12				8.92
	TSS	mg/L		1	12/12	12/12				61

Table 4 – Quarterly Attended Noise Monitoring

(Noise Limits Apply -35dB LAeq(15min) -Day, Evening and Night;45dB LA1(1min) -Night)

Table 1				
TCM Operational Noise Monitoring Results – 11 December 2023 (Evening)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC¹	Identified Noise Sources
Matong – TN2	9:21pm	35	1.9 / 039 / E	Insects (33), frogs (30), cows (25), TCM (IA)
Barbers Lagoon – TN3	7:57pm	43	0.8 / 056 / E	Birds (42), insects (36), traffic (29), frogs (26), TCM (IA)
Bungalow – TN4	8:34pm	38	1.1 / 045 / E	Insects (37), frogs (30), TCM¹ (26)

Table 2				
TCM Operational Noise Monitoring Results – 11-12 December 2023 (Night)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	10:00pm	30	1.6 / 087 / E	Insects (30), TCM (IA)
Barbers Lagoon – TN3	12:28am	46	1.4 / 070 / E	Traffic (46), insects (32), frogs (20), TCM (IA)
Bungalow – TN4	11:16pm	46	1.9 / 076 / E	Insects (46), dogs (29), frogs (27), mine (20), TCM (IA)

Table 3				
TCM Operational Noise Monitoring Results – 12 December 2023 (Day)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	12:26pm	47	2.6 / 211 / A	Birds (46), insects (39), TCM (21)
Barbers Lagoon – TN3	2:16pm	44	2.6 / 225 / B	Traffic (42), birds (37), insects (35), TCM (IA)
Bungalow – TN4	10:46am	41	1.7 / 148 / A	Insects (39), birds (37), TCM (IA)

Table 4 TCM Operational Noise Monitoring Results – 12 December 2023 (Evening)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	9:29pm	34	2.0 / 270 / E	Insects (33), frogs (24), TCM (23)
Barbers Lagoon – TN3	8:05pm	45	1.0 / 300 / E	Aeroplanes (42), insects (40), birds (36), frogs (35), TCM (IA)
Bungalow – TN4	8:45pm	41	0.5 / 219 / E	Insects (41), birds (25), TCM (IA)

Table 5 TCM Operational Noise Monitoring Results – 12-13 December 2023 (Night)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	10:00pm	39	2.8 / 242 / D	Insects (37), TCM (32) , frogs (31)
Barbers Lagoon – TN3	12:26am	35	1.4 / 047 / E	Insects (34), sheep (25), frogs (23), TCM (IA)
Bungalow – TN4	11:17pm	34	1.0 / 122 / E	Insects (34), frogs (23), TCM (IA)

Table 6 TCM Operational Noise Monitoring Results – 13 December 2023 (Day)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	1:32pm	41	3.2 / 266 / B	Birds (40), insects (35), TCM (IA)
Barbers Lagoon – TN3	3:13pm	50	3.1 / 284 / C	Traffic (50), insects (37), birds (35), TCM (IA)
Bungalow – TN4	11:19am	49	3.2 / 268 / B	Birds (48), insects (41), TCM (IA)

Table 7				
TCM Operational Noise Monitoring Results – 13 December 2023 (Evening)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	9:30pm	46	5.2 / 317 / D	Insects (46), wind (32), TCM (IA)
Barbers Lagoon – TN3	8:03pm	43	3.1 / 189 / E	Insects (42), traffic (35), frogs (29), birds (25), TCM (IA)
Bungalow – TN4	8:44pm	48	5.1 / 313 / D	Insects (47), frogs (38), wind (33), TCM (IA)

Table 8				
TCM Operational Noise Monitoring Results – 13-14 December 2023 (Night)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	10:00pm	42	4.5 / 325 / D	Insects (42), wind (26), TCM (23)
Barbers Lagoon – TN3	12:26am	34	1.5 / 102 / E	Insects (30), frogs (30), TCM (28)
Bungalow – TN4	11:16pm	43	3.0 / 331 / D	Insects (43), frogs (30), TCM (IA)

Table 9				
TCM Operational Noise Monitoring Results – 14 December 2023 (Day)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	2:42pm	51	5.1 / 298 / C	Birds (50), insects (43), wind (36), TCM (IA)
Barbers Lagoon – TN3	4:29pm	45	4.6 / 293 / D	Birds (44), insects (37), TCM (IA)
Bungalow – TN4	11:16am	53	6.1 / 316 / C	Birds (53), insects (35), wind (32), TCM (IA)

Table 10				
TCM Operational Noise Monitoring Results – 14 December 2023 (Evening)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	9:29pm	51	8.4 / 322 / D	Insects (40), frogs (42), wind (30), TCM (IA)
Barbers Lagoon – TN3	8:03pm	46	1.3 / 254 / E	Insects (45), birds (39), frogs (23), TCM (IA)
Bungalow – TN4	8:45pm	46	1.6 / 221 / E	Insects (46), sheep (34), TCM (IA)

Table 11				
TCM Operational Noise Monitoring Results – 14-15 December 2023 (Night)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	10:00pm	48	7.4 / 319 / D	Insects (47), birds (38), wind (33), TCM (IA)
Barbers Lagoon – TN3	12:27am	52	2.1 / 114 / D	Insects (52), TCM (IA)
Bungalow – TN4	11:17pm	55	6.3 / 287 / D	Insects (54), frogs (47), wind (32), TCM (IA)

Table 12				
TCM Operational Noise Monitoring Results – 15 December 2023 (Day)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	11:46am	45	4.9 / 298 / C	Birds (44), insects (39), TCM (21)
Barbers Lagoon – TN3	9:59am	50	4.5 / 292 / C	Birds (40), traffic (42), insects (35), TCM (IA)
Bungalow – TN4	8:16am	46	4.0 / 321 / C	Birds (45), insects (40), TCM (IA)

Table 13. Low-frequency analysis – Matong – TN2 10:00 pm													
Hz/dB(Z)	One-third octave L _Z eq,15min threshold level												
Frequency (Hz)	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160
Matong – TN2, dB(Z)	--	46	45	42	45	40	44	43	42	43	42	37	29
Threshold, dB(Z)	92	89	86	77	69	61	54	50	50	48	48	46	44
Exceedance, dB	--	0	0	0	0	0	0	0	0	0	0	0	0

Table 14 TCM Sleep Disturbance Monitoring Results – 11-12 December 2023 (Night)					
Location	Time	dB(A) L1 (1 min) ¹	dB(A) L1 (1 min) ²	L1 Source	Wind speed / direction / PSC
Matong – TN2	10:00pm	44	<20	Insects	1.6 / 087 / E
Barbers Lagoon – TN3	12:28am	71	<20	Traffic	1.4 / 070 / E
Bungalow – TN4	11:16pm	55	<20	Insects	1.9 / 076 / E

1. L1 (1 min) – total measured level.
2. L1 (1 min) – TCM noise only.

Table 15 TCM Sleep Disturbance Monitoring Results – 12-13 December 2023 (Night)					
Location	Time	dB(A) L1 (1 min) ¹	dB(A) L1 (1 min) ²	L1 Source	Wind speed / direction / PSC
Matong – TN2	10:00pm	51	36	Insects	2.8 / 242 / D
Barbers Lagoon – TN3	12:26am	59	<20	Insects	1.4 / 047 / E
Bungalow – TN4	11:17pm	47	<20	Insects	1.0 / 122 / E

Table 16 TCM Sleep Disturbance Monitoring Results – 13-14 December 2023 (Night)					
Location	Time	dB(A) L1 (1 min) ¹	dB(A) L1 (1 min) ²	L1 Source	Wind speed / direction / PSC
Matong – TN2	10:00pm	50	26	Insects	4.5 / 325 / D
Barbers Lagoon – TN3	12:26am	38	32	Insects	1.5 / 102 / E
Bungalow – TN4	11:16am	49	<20	Insects	3.0 / 331 / D

Table 17					
TCM Sleep Disturbance Monitoring Results – 14-15 December 2023 (Night)					
Location	Time	dB(A) L1 (1 min)¹	dB(A) L1 (1 min)²	L1 Source	Wind speed / direction / PSC
Matong – TN2	10:00pm	56	<20	Insects	7.4 / 319 / D
Barbers Lagoon – TN3	12:27am	62	<20	Insects	2.1 / 114 / D
Bungalow – TN4	11:17pm	60	<20	Insects	6.3 / 287 / D

The results in Tables 14 to 17 show that the Tarrawonga Coal Mine measured L1 (1 min) noise levels did not exceed the sleep disturbance criterion during any of the night-time monitoring periods

Table 5 – Monthly Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date of Max. Value Obtained
Coomalgah (TB2)	Blast Noise	dB (Lin Peak)	Every Blast	5	97.82	100.40	120	Nil	8/12/2023
	Blast Vibration	mm/s	Every Blast	5	0.39	0.73	10	Nil	23/12/2023

Table 6- Monthly Monitoring (Dust PM10 – No Limits apply)

Location	No. of samples required by licence	Lowest sample value	Mean of sample	Highest sample value
“Flixton” property* TEOM (µg/m ³)	Continuous	5.22	24.6	126

**Mine owned property – no limit apply*

Figure 1 – EPL 12365 Monitoring Locations

