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 and 2 below
Sampling Period: January 2019
Obtained Date: 5/02/2019
Publication Date: 5/02/2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
7	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	--
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
8	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
25	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
26	TSS	mg/L	Upon	0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
	Conductivity	µS/cm	discharge	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

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 Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
11	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm.

Table 4 – Quarterly Attended Noise Monitoring

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

No Noise Monitoring data reported for January.

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
Tarrawonga*	Blast Noise	dB (Lin Peak)	Every Blast	6	98.2	110.9	N/A	N/A	04/01/19
	Blast Vibration	mm/s	Every Blast	6	0.13	0.18	N/A	N/A	16/01/19
Coomalgah	Blast Noise	dB (Lin Peak)	Every Blast	6	91.5	99.6	120	Nil	23/01/19
	Blast Vibration	mm/s	Every Blast	6	0.1	0.17	10	Nil	07/01/19

*****_Mine owned property – no limit apply_

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 ($\mu g/m^3$)	Continuous	11.7	29.1	65.7

*****_Mine owned property – no limit apply_

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 and 2 below

Sampling Period: February 2019

Obtained Date: 04/03/2019

Publication Date: 4/03/2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
7	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	--
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
8	TSS	mg/L	Upon	0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
	Conductivity	µS/cm	discharge	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
25	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
	pH	pH		0	-	-	-	-	-	-	-
26	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

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 Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
11	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	1	-	-	-	-	-	3,720
	Oil & Grease	mg/L		1	-	-	-	-	-	<5
	pH	pH		1	-	-	-	-	-	8.6
	TSS	mg/L		1	-	-	-	-	-	19

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm.

Table 4 – Quarterly Attended Noise Monitoring.

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

No Noise Monitoring data reported for February.

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
Tarrawonga*	Blast Noise	dB (Lin Peak)	Every Blast	5	102.96	109.50	N/A	N/A	11/02/19
	Blast Vibration	mm/s	Every Blast	5	0.32	0.87	N/A	N/A	11/02/19
Coomalgah	Blast Noise	dB (Lin Peak)	Every Blast	5	101.72	112.70	120	Nil	01/02/19 and
	Blast Vibration	mm/s	Every Blast	5	0.49	1.67	10	Nil	11/02/19

*****_Mine owned property – no limit apply_

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	0	45.5	215[#]

*****_Mine owned property – no limit apply_

 # Dust storm event

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 and 2 below
Sampling Period: March 2019
Obtained Date: 04/04/2019
Publication Date: 10/04/2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
7	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	--
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
8	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
25	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
26	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

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 Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	1	14/03/19	-	-	-	-	3,640
	Lead	mg/L		1	14/03/19	-	-	-	-	0.005
	pH	pH		1	14/03/19	-	-	-	-	8.1
	Standing Water Level	metres		1	14/03/19	-	-	-	-	7.78
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	1	14/03/19	-	-	-	-	532
	Lead	mg/L		1	14/03/19	-	-	-	-	0.002
	pH	pH		1	14/03/19	-	-	-	-	7.1
	Standing Water Level	metres		1	14/03/19	-	-	-	-	4.34
11	Conductivity	µS/cm	6 monthly – (Jun- Dec)	-	-	-	-	-	-	-
	Lead	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Standing Water Level	metres		-	-	-	-	-	-	-
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	1	14/03/19	-	-	-	-	4,840
	Lead	mg/L		1	14/03/19	-	-	-	-	**0.008**
	pH	pH		1	14/03/19	-	-	-	-	7.2
	Standing Water Level	metres		1	14/03/19	-	-	-	-	10.2
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm.

Table 4 – Quarterly Attended Noise Monitoring.

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

(Extract Summary from the independent noise consultant report)

EPL ID	Location	Date	Tarrawonga Coal Mine Contribution dBA				Criteria	Measurement Periods	Weather Compliant			Compliant
			LAeq(15minute) Day	LAeq(15minute) Evening	LAeq(15minute) Night	LA1(1minute) Night			Day	Eve	Night	
79a	Barbers Lagoon	25/02/2019	26	N/M	I/A	I/A	Day, Evening and Night – 35 dBA LAeq(15minute) Night – 45 dBA LA1(1minute) Cumulative Day, Evening, Night 40 dBA LAeq(15minute)	Day - 1.5 hrs Evening - 0.5 hrs Night – 1hrs	N	N	N	Y
		26/02/2019	I/A	I/A	25	27			Y	Y	Y	Y
		27/02/2019	26	I/A	N/M	N/M			Y	N	N	Y
		28/02/2019	I/A	N/M	31	33			Y	N	N	Y
89	Bungalow	25/02/2019	I/A	N/M	27	29			N	N	N	Y
		26/02/2019	I/A	I/A	I/A	I/A			Y	Y	Y	Y
		27/02/2019	I/A	I/A	N/M	N/M			Y	N	Y	Y
		28/02/2019	<25	I/A	I/A	I/A			Y	N	N	Y
60a	Coomalgah/ Matong	25/02/2019	25	N/M	I/A	I/A			Y	N	N	Y
		26/02/2019	26	<25	<25	25			Y	Y	N	Y
		27/02/2019	31	I/A	I/A	I/A			Y	N	N	Y
		28/02/2019	26	N/M	I/A	I/A			Y	N	Y	Y

Note:

I/A = Inaudible

N/M = Not Measurable

Attended noise monitoring was conducted at the “Bungalow” (TN4), “Barbers Lagoon” (TN3) and “Matong” (TN2) properties from 25th to the 28th of February 2019. A summary table (Table 4) displays compliance, while a comprehensive results table (Table 5) was produced to display all measurements. The noise criterion for the mine is 35dB(A) Leq (15 min) for all operating times.

Noise from the mine must not exceed 45 dB(A) L1 (1 min) between 10 pm and 7 am. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the mine. The results of the sleep disturbance monitoring show that the measured L1 (1 min) noise level did not exceed the sleep disturbance criterion.

The results above and below show that noise emissions from the mine did not exceed the operational noise criterion at the "Barbers Lagoon", "Bungalow" or "Matong" monitoring locations during the monitoring event during the entire monitoring period.

Table 5 – Quarterly Attended Noise Monitoring – all results

(Extract – all results from independent noise consultant report)

Date	Time	Measure-ment Number	Total Noise Levels (dB)						Mine LAeq Noise Level (dB)	Wind Speed (m/s)	Wind Direc-tion	Stabil-ity Categ-ory	Rain (mm)	Description/ Comments
			LA eq	LA max	LA min	LA1	LA10	LA90						
Barbers Lagoon														
25/02/2019	11:41	1	59	80	28	72	61	35	N/M	1.7 – 5.1	ENE - ESE	E	0	**Site Related Noise Events:** Audible but not measurable at times. Dozer 28-31 **Other Noise Events:** Birds 63-80 Dog 63 Car 56
		2	45	64	25	56	49	28	26			D	0	
		3	40	58	28	51	43	31	N/M			D	0	
		4	45	60	31	55	49	34	N/M			E	0	
		5	46	73	26	57	46	31	25			A	0	
		6	41	62	26	54	43	30	26			A	0	
	20:32	1	59	79	37	72	56	40	N/M	3.5-4.9	ESE	D	0	**Site Related Noise Events:** Not measurable. **Other Noise Events:** Dog 56-79 Car 51
		2	49	70	40	57	51	44	N/M			D	0	
	23:30	1	44	52	37	49	46	40	I/A	4-5.3	E/ESE	C	0	**Site Related Noise Events:** Inaudible **Other Noise**
		2	41	56	33	47	44	37	I/A			B	0	

		3	41	67	32	48	40	34	I/A			C	0	**Events:** Dog barking 56-67 Wind 35-50
		4	41	47	33	46	44	37	I/A			C	0	
26/02/2019	11:01	1	45	65	27	58	46	31	I/A	0-3	E-W	B	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Birdsong 35-44 Radio 34 Traffic 37-39 Farm animals 59-62 Resident vehicle pass 74-79
		2	49	79	26	58	48	30	I/A			D	0	
		3	48	74	26	59	49	30	I/A			E	0	
		4	43	62	26	55	45	31	I/A			D	0	
		5	47	67	27	59	49	32	I/A			E	0	
		6	43	66	26	54	45	30	I/A			E	0	
	20:12	1	27	43	23	33	29	25	I/A	1.2-1.3	E/ESE	D	0	**Site Related Noise Events:** Inaudible. **Other Noise Events:** Birds 30-33 Distant Truck 28 Car 37-45
		2	32	45	26	42	35	27	I/A			D	0	
	01:04	1	35	57	23	50	29	26	25	0-1.2	N	E	0	**Site Related Noise Events:** Audible. Dozer <25-30 **Other Noise Events:** Dog 49-57 Car 33-37 Birds 35-40
		2	26	41	22	29	27	25	<25			E	0	
		3	38	58	23	51	39	25	<25			F	0	
		4	33	55	24	46	33	26	25			F	0	
27/02/2019	12:31	1	46	69	24	60	42	28	<25	0-4.3	E/SSW	E	0	**Site Related Noise Events:** Audible. Dozer 28 **Other Noise Events:** Birds 40-79
		2	52	72	24	63	56	32	<25			A	0	
		3	44	74	26	52	43	30	26			C	0	

		4	38	61	25	46	41	29	26			C	0	Truck 38-44 Car 40-53
		5	39	63	24	49	43	28	26			C	0	
		6	47	79	23	51	37	26	26			C	0	
	19:58	1	47	66	40	53	50	43	I/A	4.3-5.3	E/NE	D	0	**Site Related Noise Events:**
		2	46	55	40	52	48	42	I/A			D	0	Inaudible **Other Noise Events:** Farm operations 38 Birdsong 41-66 Wind 43-50
	23:29	1	39	57	33	46	42	36	N/M	3-4.5	SSW/ESE	A	0	**Site Related Noise Events:**
		2	41	65	35	47	43	37	N/M			C	0	Not Measureable **Other Noise**
		3	42	65	38	47	44	37	N/M			C	0	**Events:** Bats 57-65 Wind 36-49
		4	42	63	36	48	44	37	N/M			A	0	
28/02/2019	13:07	1	59	83	27	60	50	53	I/A	0.3-3.5	SE/SSW	D	0	**Site Related Noise Events:**
		2	46	76	24	52	40	28	I/A			B	0	Inaudible **Other Noise Events:**
		3	54	72	25	64	48	30	I/A			C	0	Birdsong 48-83 Plane 44 Car pass-by 52-61 Plane 44 Wind 40-53
		4	42	65	26	52	45	30	I/A			A	0	
		5	40	60	26	49	41	29	I/A			B	0	
		6	42	67	25	54	42	29	I/A			C	0	
	18:01	1	49	74	33	59	52	37	I/A	3.3-4.3	SE	D	0	**Site Related Noise Events:**
		2	64	87	33	76	67	39	N/M			D	0	Not measurable. **Other Noise Events:**

														Dog 63 Car 43-53 Birds 48-87
	22:13	1	40	60	31	51	41	34	29	3.1-5	ENE	D	0	**Site Related Noise Events:**
		2	37	58	29	43	40	32	30			D	0	Mine Clearly audible. Dozer: 32
		3	33	42	29	39	36	31	31			D	0	**Other Noise Events:**
		4	36	60	28	43	37	30	31			D	0	Car 45-60 Dog 50-59 Cow 35
Bungalow – TN4														
25/02/2019	9:40	1	42	60	28	55	44	33	I/A	4.2-6.2	E/ ESE	C	0	**Site related noise:** Inaudible.
		2	43	62	28	55	46	32	I/A			D	0	**Other noise events:**
		3	49	67	31	57	52	38	I/A			B	0	Car 50- 61 Truck 67-68
		4	41	61	27	51	43	33	I/A			C	0	
		5	46	68	27	60	44	34	I/A			B	0	
		6	40	59	22	49	44	25	I/A			D	0	
	19:40	1	49	57	43	54	51	46	I/A	4.9-5.9	ESE	D	0	**Site Related Noise Events:**
		2	51	70	43	57	53	46	N/M			D	0	Not measurable. **Other Noise Events:** Wind 50-70
	00:50	1	45	52	40	49	47	42	N/M	4.2-5.3	E	D	0	**Site Related Noise Events:**
		2	44	60	38	48	46	41	N/M			D	0	Barely audible General operations
		3	41	50	35	45	43	38	N/M			D	0	27

		4	36	44	30	40	38	33	27			E	0	**Other Noise Events:** Insects 34-40 Wind 41-60
26/02/2019	12:59	1	52	73	28	64	43	32	I/A	0.9-3.9	SSE/SSW	A	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Car pass-by 71-74 Birdsong 46-65 Wind 27-51
		2	48	71	27	59	43	30	I/A			C	0	
		3	52	74	262	65	51	32	I/A			B	0	
		4	48	73	24	59	43	27	I/A			B	0	
		5	36	57	22	46	40	25	I/A			A	0	
		6	41	59	23	50	45	25	I/A			B	0	
	19:21	1	39	54	22	48	43	29	I/A	1.1-2.3	ESE	E	0	**Site related noise:** Inaudible. **Other noise events:** Car 49-54 Truck 44 Insects 50-52 Birds 45-50
		2	45	52	32	50	48	37	I/A			E	0	
	23:36	1	52	60	36	56	54	48	I/A	0-1	S/SSW	B	0	**Site related noise:** Inaudible. **Other noise events:** Truck 55-63 Insects 54-56
		2	54	63	30	57	56	49	I/A			B	0	
		3	53	57	32	56	55	47	I/A			A	0	
		4	49	56	29	53	52	43	I/A			B	0	
27/02/2019	10:41	1	40	62	20	53	40	23	I/A	0.7-3.5	E/S	C	0	**Site related noise:** Inaudible. Haul truck 35 **Other noise events:** Car 55-78
		2	53	78	21	67	48	24	I/A			B	0	
		3	33	56	22	39	35	24	I/A			E	0	

		4	41	68	21	54	41	25	I/A			E	0	Truck 75 Birds 45-45
		5	28	56	20	37	30	21	I/A			E	0	
		6	33	54	21	43	37	23	I/A			E	0	
	20:43	1	49	63	42	53	50	46	I/A	4.2-5.1	E/ENE	D	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Wind 40-57 Car pass-by 58-63 Insects 41-43
		2	50	58	44	55	52	47	I/A			D	0	
	01:06	1	44	58	35	49	46	39	N/M	0-1.2	NE-WSW	D	0	**Site Related Noise Events:** Not Measureable **Other Noise Events:** Insects 39-44 Wind 50-61
		2	46	61	38	52	48	42	I/A			E	0	
		3	44	55	37	50	47	40	I/A			F	0	
		4	44	60	32	50	46	38	I/A			F	0	
28/02/2019	08:59	1	50	76	28	61	47	37	N/M	1.2-2.7	ESE/SSE	B	0	**Site Related Noise Events:** Intermittently audible General engine noise 24-26 **Other Noise Events:** Car pass-by 67-76 Plane 38-45 Birdsong 38-61
		2	47	72	25	59	45	27	I/A			B	0	
		3	46	72	23	59	42	26	<25			C	0	
		4	44	67	23	58	39	24	<25			B	0	
		5	37	65	24	49	38	26	N/M			A	0	
		6	41	64	24	53	42	26	I/A			B	0	
	18:55	1	42	68	35	47	44	37	I/A	3.8-4.7	SE/SSE	E	0	**Site Related Noise Events:** Inaudible. **Other Noise Events:**
		2	39	56	32	46	42	35	I/A			E	0	

														Birds 68 Truck 35
	22:01	1	51	62	43	55	53	48	I/A	3.1-5	ENE	D	0	**Site Related Noise Events:**
		2	52	59	48	58	56	45	I/A			D	0	Inaudible **Other Noise Events:**
		3	50	65	40	57	54	43	I/A			D	0	Insects 46 Wind 43-54
		4	50	59	39	58	55	42	I/A			D	0	Car pass-by 56-65
Matong/ Coomalgah – TN2														
25/02/2019	7:27	1	35	53	19	48	37	21	<25	0.6-2.5	SE/ ESE	C	0	**Site Related Noise Events:**
		2	48	63	19	58	54	21	<25			C	0	Mine clearly audi-ble.
		3	40	64	19	53	40	22	<25			C	0	Dozer 25
		4	46	72	20	59	45	22	25			C	0	**Other Noise Events:** Plane 40-53
		5	42	68	21	55	36	23	25			C	0	Car 46-53 Birds 60-72
		6	47	71	22	60	48	24	25			C	0	
	18:43	1	41	52	29	47	44	34	N/M	3.9-5.5	ESE	D	0	**Site Related Noise Events:**
		2	42	59	33	47	45	36	N/M			D	0	Not measurable. **Other Noise Events:** Car 46-59
	22:00	1	36	44	26	41	39	30	I/A	3.5-4.9	E	E	0	**Site Related Noise Events:**
		2	37	54	26	43	40	30	I/A			E	0	Inaudible **Other Noise Events:**
		3	37	46	29	43	40	33	I/A			D	0	Wind 35-54 Insects 33-35
		4	38	48	29	44	42	32	I/A			E	0	

26/02/2019	09:02	1	38	56	24	49	41	27	26	1.3-3.1	W/WSW	A	0	**Site Related Noise Events:** Audible General truck noise 25-30 **Other Noise Events:** Other industry 26-31 Birdsong 35-60 Plane 32
		2	33	56	23	44	33	24	26			C	0	
		3	30	59	22	41	29	24	25			A	0	
		4	32	54	22	43	31	24	26			A	0	
		5	36	60	22	50	30	23	N/M			A	0	
		6	30	51	22	41	32	24	26			A	0	
	18:28	1	25	49	19	35	26	21	<25	1.3-2.2	E/ESE	D	0	**Site Related Noise Events:** Mine clearly audible. **Other Noise Events:** Birds 33-63
		2	35	63	20	45	34	21	22			D	0	
	22:06	1	31	37	24	35	33	28	I/A	3.5-4.6	E/ENE	D	0	**Site Related Noise Events:** Audible. Dozer 20-23 **Other Noise Events:** Insects 30-55
		2	26	55	19	32	29	22	<25			D	0	
		3	29	48	24	32	31	26	<25			D	0	
		4	30	49	25	33	32	28	<25			E	0	
27/02/2019	08:41	1	33	55	24	46	33	26	29	1.4-2.8	SW/SSW	A	0	**Site Related Noise Events:** Mine clearly audible. Dozer 30-35 Horn 34-35 Engine Rev: 33-35 **Other Noise Events:** Birds 55-79 Car 41-46
		2	39	64	26	51	41	29	30			B	0	
		3	58	79	26	73	49	29	30			A	0	
		4	36	56	24	45	39	28	30			D	0	
		5	41	64	23	55	39	26	31			A	0	
		6	36	59	24	47	38	27	31			A	0	

	19:06	1	35	65	25	43	36	25	I/A	3-3.8	E	D	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Car pass-by 70-74 Light wind 29-38 Birdsong 32-65 Plane 37
		2	49	74	21	60	40	23	I/A			D	0	
	22:01	1	47	52	38	50	49	43	I/A	3.4-4.5	E/ENE	E	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Wind 46-57 Insects 43-45
		2	46	52	38	50	48	43	I/A			D	0	
		3	47	57	37	50	49	44	I/A			D	0	
		4	46	52	39	50	48	43	I/A			D	0	
28/02/2019	11:03	1	29	58	23	57	60	25	<25	1.1-2.9	E/ENE	B	0	**Site Related Noise Events:** Audible General engine noise 22-29 **Other Noise Events:** Other Industry 26-31 Birdsong 51-62 Car pass-by 72-81
		2	32	57	22	45	32	24	<25			D	0	
		3	29	58	22	39	28	23	<25			D	0	
		4	34	59	23	48	31	25	<25			D	0	
		5	36	62	22	49	34	24	26			D	0	
		6	55	81	23	67	43	24	<25			D	0	
	20:54	1	39	73	29	43	39	31	N/M	3.6-4.8	SE	D	0	**Site Related Noise Events:** Not measurable. **Other Noise Events:** Birds 40
		2	34	56	27	38	36	30	N/M			D	0	
	22:00	1	30	53	25	34	32	28	I/A	0.3-2.1	SE/ESE	D	0	**Site Related Noise Events:** Inaudible.
		2	32	53	26	36	33	29	I/A			D	0	

		3	31	38	24	35	33	27	I/A			D	0	
		4	33	40	24	38	36	28	I/A			D	0	

Notes:

- Acronyms used: I/A = Inaudible, m/s = metres/second, dB = decibel.
- Noise Criteria do not apply for any following weather conditions:
  a) Wind speeds greater than 3m/s at 10m above ground level (indicated in red)
  b) Stability Category F temperature inversion conditions and wind speeds greater than 2m/s, 10m above the ground
  c) Stability category G temperature inversions.

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
Tarrawonga*	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	6	101.3	113.3	**N/A**	**N/A**	1/03/2019
	Blast Vibration	**mm/s**	**Every Blast**	6	0.33	1.12	**N/A**	**N/A**	1/03/2019
Coomalgah	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	6	96.7	104.2	**120**	**Nil**	27/03/2019
	Blast Vibration	**mm/s**	**Every Blast**	6	0.42	1.79	**10**	**Nil**	1/03/2019

***Mine owned property – no limit apply*

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 24 hr average (µg/m^3)	Continuous	4.2	34.4	99.3

***Mine owned property – no limit apply*

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 and 2 below
Sampling Period: April 2019
Obtained Date: 04/05/2019
Publication Date: 06/05/2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
7	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	--
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
8	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
25	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
26	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

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 Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
11	Conductivity	µS/cm	6 monthly – (Jun- Dec)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm.

Table 4 – Quarterly Attended Noise Monitoring.

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

No Noise Monitoring data reported for April.

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
Tarrawonga* (TB1)	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	4	91.1	94.5	**N/A**	**N/A**	18/04/2019
	Blast Vibration	**mm/s**	**Every Blast**	4	0.17	0.2	**N/A**	**N/A**	04/04/2019
Coomalgah	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	4	94.9	101.3	**120**	**Nil**	18/04/2019
	Blast Vibration	**mm/s**	**Every Blast**	4	0.18	0.31	**10**	**Nil**	04/04/2019

*****Mine owned property – no limit apply*

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 24 hr average (µg/m^3)	Continuous	0.0	26.6	77.6

*****Mine owned property – no limit apply*

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 and 2 below
Sampling Period: May 2019
Obtained Date: 04/06/2019
Publication Date: 06/06/2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
7	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	--
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
8	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
25	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
26	TSS	mg/L	Upon	0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
	Conductivity	µS/cm	discharge	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

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 Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
11	Conductivity	µS/cm	6 monthly – (Jun- Dec)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	1	23/05/19	-	-	-	-	3,070
	Oil & Grease	mg/L		1	23/05/19	-	-	-	-	<5
	pH	pH		1	23/05/19	-	-	-	-	8.0
	TSS	mg/L		1	23/05/19	-	-	-	-	<5

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm

Table 4 – Quarterly Attended Noise Monitoring.

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

No Noise Monitoring data reported for May.

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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
Tarrawonga* (TB1)	Blast Noise	dB (Lin Peak)	Every Blast	8	97.1	101.3	N/A	N/A	20/05/2019
	Blast Vibration	mm/s	Every Blast	8	0.25	0.52	N/A	N/A	30/05/2019
Coomalgah	Blast Noise	dB (Lin Peak)	Every Blast	8	94.45	98.9	120	Nil	30/05/2019
	Blast Vibration	mm/s	Every Blast	8	0.19	0.34	10	Nil	30/05/2019

*****_Mine owned property – no limit apply_

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 24 hr average (µg/m^3)	Continuous	4.6	25.3	55.5

*****_Mine owned property – no limit apply_

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 and 2 below
Sampling Period: June 2019
Obtained Date: 12/07/2019
Publication Date: 12/07/2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
7	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	--
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
8	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
25	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
26	TSS	mg/L	Upon	0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
	Conductivity	µS/cm	discharge	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

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 Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
11	Conductivity	µS/cm	6 monthly – (Jun- Dec)	1	19/06/2019	18/07/2019	-	-	-	2, 120
	Lead	mg/L		1	19/06/2019	18/07/2019	-	-	-	<0.001
	pH	pH		1	19/06/2019	18/07/2019	-	-	-	7.76
	Standing Water Level	metres		1	19/06/2019	18/07/2019	-	-	-	9.35
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm

Table 4 – Quarterly Attended Noise Monitoring.

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

(Table extracted from SLR Q2 quarterly report 2019)

Table 1 Performance Assessment – Operations

EPL ID	Location	Date	Tarrawonga Coal Mine Contribution dBA				Criteria	Measurement Periods	Weather Compliant			Compliant
			LAeq(15minute) Day	LAeq(15minute) Evening	LAeq(15minute) Night	LA1(1minute) Night			Day	Eve	Night	
79a	Barbers Lagoon	04/06/2019	I/A	I/A	I/A	I/A	Day, Evening and Night – 35 dBA LAeq(15minute) Night – 45 dBA LA1(1minute) Cumulative Day, Evening, Night 40 dBA LAeq(15minute)	Day - 1.5 hrs Evening - 0.5 hrs Night – 1hrs	N	Y	Y	Y
		05/06/2019	I/A	I/A	23	25			N	Y	Y	Y
		06/06/2019	I/A	22	25	25			Y	Y	Y	Y
		07/06/2019	34	33	33	38			Y	Y	Y	Y
89	Bungalow	04/06/2019	I/A	I/A	I/A	I/A			N	Y	Y	Y
		05/06/2019	I/A	I/A	21	25			Y	Y	Y	Y
		06/06/2019	<25	I/A	<25	<25			Y	Y	Y	Y
		07/06/2019	35	29	30	35			Y	Y	Y	Y
60a	Coomalgah/ Matong	04/06/2019	34	34	24	27			N	Y	Y	Y
		05/06/2019	N/M	I/A	I/A	I/A			N	Y	Y	Y
		06/06/2019	24	22	29	34			Y	Y	Y	Y
		07/06/2019	42[1]	<25	27	30			Y	Y	Y	N

Note 1: A +2dB modifying factor correction for low frequency noise has been applied in accordance with the NPfI.

I/A = Inaudible

N/M = Not Measurable

Attended noise monitoring was conducted at the “Bungalow” (TN4), “Barbers Lagoon” (TN3) and “Matong” (TN2) properties from 4th to the 7th of June 2019. A summary table (Table 4) displays compliance, while a comprehensive results table (Table 5) was produced to display all measurements. The noise criterion for the mine is 35dB(A) Leq (15 min) for all operating times.

The results above and below show that noise emissions from the mine did not exceed the operational noise criterion of 35dBA Leq(15min) at the "Barbers Lagoon" or "Bungalow" monitoring locations during the monitoring event during the entire monitoring period. Noise emissions from the mine exceeded the operational noise criterion at "Matong" monitoring location on the 7th of June 2019.

Noise from the mine must not exceed 45 dB(A) L1 (1 min) between 10 pm and 7 am. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the mine. The results of the sleep disturbance monitoring show that the measured L1 (1 min) noise level did not exceed the sleep disturbance criterion.

Table 5 – Quarterly Attended Noise Monitoring – all results

(Extract – all results from independent noise consultant report)

Date	Time	Measure-ment Number	Total Noise Levels (dB)						Mine LAeq Noise Level (dB)	Wind Speed (m/s)	Wind Direc-tion	Stabil-ity Categ-ory	Rain (mm)	Description/ Comments
			LA eq	LA max	LA min	LA1	LA10	LA90						
Barbers Lagoon – TN3														
04/06/2019	11:56	1	57	75	36	69	60	42	I/A	4.1-5.9	SW/SSW	D	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Sheep 40-65 Road Vehicle 52,60 Birds 50-79
		2	55	73	39	67	57	44	I/A			D	0	
		3	64	82	38	78	61	43	I/A			D	0	
		4	54	74	31	66	57	37	I/A			D	0	
		5	51	70	33	63	54	39	I/A			D	0	
		6	51	71	34	63	55	38	I/A			D	0	
	20:29	1	34	68	24	36	32	27	I/A	0.2-0.9	WSW	E	0	**Site Related Noise Events:**

		2	32	61	26	38	32	28	I/A			D	0	Inaudible **Other Noise Events:** Wind related noise 28-36 Animal noise 50-68
	23:17	1	30	59	19	41	32	21	I/A	0.5-1.4	S/SW	D	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Wind related noise 35 Dogs 24-29 Bird 55-75
		2	46	74	22	53	33	24	I/A			E	0	
		3	47	75	18	56	25	18	I/A			E	0	
		4	26	55	18	37	24	18	I/A			D	0	
05/06/2019	11:11	1	53	73	38	61	55	43	I/A	4.6-5.2	SE/SSE	D	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Sheep 56-70 Resident vehicle 75-78 Wind related noise 43-51
		2	50	65	30	55	53	43	I/A			C	0	
		3	53	64	43	60	56	47	I/A			D	0	
		4	55	78	42	66	57	46	I/A			C	0	
		5	56	75	42	66	59	47	I/A			C	0	
		6	50	69	38	59	53	43	I/A			C	0	
	20:17	1	29	46	21	39	34	22	I/A	0.6-1.8	-	E	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Dog 24 Road Vehicle 40-53 Sheep 34
		2	23	53	20	26	23	21	I/A			E	0	
	23:29	1	25	40	22	29	27	23	LAeq 24 LA1	0-0.5	NE	-	0	**Site Related Noise Events:** General mine

		2	24	46	21	28	25	22	21 LAeq 23 LA1			-	0	activity 19-24 Occasional Horn 24 Dozer opera- tion 21-23 **Other Noise Events:** Distant livestock 25-46
		3	23	40	21	27	25	22	19 LAeq 21 LA1			-	0	
		4	25	44	21	36	25	22	20 LAeq 24 LA1			D	0	
06/06/2019	12:11	1	43	66	24	56	44	27	I/A	1.9-2.6		A	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Sheep 30-60 Birds 30-50 Road Vehicles 35-60
		2	45	70	26	57	44	30	I/A			A	0	
		3	47	69	25	59	48	29	I/A			C	0	
		4	51	72	25	63	54	30	I/A			B	0	
		5	49	73	26	61	51	29	I/A			D	0	
		6	48	70	23	60	52	27	I/A			B	0	
	20:00	1	32	54	20	43	36	22	21 LAeq	0.9-1.4	NNE	D	0	**Site Related Noise Events:** General drone 20-23 **Other Noise Events:** Road traffic 37-45 Cattle 50-57
		2	33	57	20	43	37	22	22 LAeq			F	0	
	00:48	1	34	57	22	46	36	26	25 LAeq 27 LA1	1.4-3.7	E/ENE	E	0	**Site Related Noise Events:** General drone 23-25 **Other Noise Events:**
		2	41	58	20	51	46	22	LAeq			D	0	

									24 LA1					Cows 57-60 Wind in trees 28-30
		3	35	58	20	48	36	22	LAeq 25 LA1			E	0	
		4	33	60	22	42	35	24	LAeq 25 LA1			D	0	
07/06/2019	10:01	1	94	94	94	94	94	94	33 LAeq	0.8-2.9	S/SE	A	0	**Site Related Noise Events:** General mine activity 29-36 **Other Noise Events:** Road Vehicles 40-45 Birds 60 Dog 40-50
		2	49	72	31	61	51	35	34 LAeq			C	0	
		3	44	71	31	54	45	35	32 LAeq			D	0	
		4	50	74	30	65	41	33	30 LAeq			C	0	
		5	42	61	30	52	45	34	30 LAeq			B	0	
		6	48	74	32	61	47	35	I/A			C	0	
	20:14	1	41	60	30	55	42	33	32 LAeq	0.9-1.2		F	0	**Site Related Noise Events:** General mine activity 31-34 **Other Noise Events:** Cows 30-40 Road Vehicles 48-60
		2	39	55	31	49	42	33	33 LAeq			F	0	
	23:21	1	33	57	27	41	35	30	31 LAeq 34 LA1	3.1-5		-	0	**Site Related Noise Events:** General mine activity 29-37 **Other Noise Events:** Cows 30-40 Dog 42
		2	33	47	28	39	35	30	32 LAeq 35 LA1			E	0	

		3	33	35	30	46	40	37	33 LAeq 37 LA1			D	0	Road Vehicles 35-40
		4	35	44	31	39	36	33	33 LAeq 36 LA1			E	0	
Bungalow – TN4														
04/06/2019	9:48	1	51	60	42	54	45	51	I/A	4.6-6.8	SW	D	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Wind 45-60 Road Vehicles 50-65 Birds 40-55 Cows 40-45
		2	47	70	36	49	40	47	I/A			D	0	
		3	50	61	42	53	45	50	I/A			D	0	
		4	53	68	44	56	48	53	I/A			D	0	
		5	55	64	47	57	49	55	I/A			D	0	
		6	52	62	40	55	46	52	I/A			D	0	
	21:13	1	32	58	21	31	25	32	I/A	0	-	-	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Animal 43-58 Plane 34
		2	32	55	27	32	30	32	I/A			-	0	
	00:35	1	24	42	19	32	25	20	I/A	1.3-2.1	S/SSW	D	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Animal 42-53 Plane 30-36
		2	24	47	18	36	21	18	I/A			D	0	
		3	25	50	17	36	27	18	I/A			D	0	
		4	24	53	18	36	20	18	I/A			D	0	

05/06/2019	09:24	1	42	77	27	51	38	30	I/A	2.7-5	SSE/S	C	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Plane 33 Wind related noise 29-38 Birds 77 Car pass-by 66-74
		2	37	63	31	46	42	33	I/A			D	0	
		3	44	66	32	53	43	35	I/A			D	0	
		4	44	74	34	53	45	38	I/A			C	0	
		5	47	72	24	58	47	38	I/A			D	0	
		6	48	72	37	52	49	42	I/A			C	0	
	21:05	1	44	67	21	58	41	22	I/A	1.3-1.5	SE/SSE	E	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Road Vehicles 50-67 Birds 35-40
		2	23	39	20	30	26	21	I/A			D	0	
	01:07	1	23	36	20	32	25	20	I/A	0.6-2	N/NNE	D	0	**Site Related Noise Events:** Faintly Audible **Other Noise Events:** Road Vehicle 25-35 Livestock 20-30
		2	23	47	20	27	23	21	I/A			E	0	
		3	23	39	20	29	24	21	N/M			E	0	
		4	25	41	21	32	26	22	21 LAeq			D	0	
06/06/2019	09:56	1	36	60	24	49	35	26	20 LAeq	0.9-1.6	SW/SE	C	0	**Site Related Noise Events:** Faintly Audible **Other Noise Events:** Rocglen mine operations 23-27 Birds 25-75 Road Vehicles 55-65
		2	42	67	22	56	32	24	20 LAeq			A	0	
		3	55	77	22	69	52	23	I/A			A	0	
		4	37	62	21	48	38	23	I/A			A	0	
		5	41	66	21	55	35	22	I/A			A	0	

		6	33	55	21	46	32	22	I/A			A	0	
	19:10	1	26	53	18	34	29	20	I/A	1.8-1.9	NNE	E	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Distant road traffic 22 Animal 42-53 Plane 28-33
		2	25	42	19	33	28	21	I/A			D	0	
	22:00	1	40	64	18	53	33	21	I/A	0-1	NNW	E	0	**Site Related Noise Events:** Very faint drone 20-22 **Other Noise Events:** Car pass-by 52-64 Bat 48
		2	24	52	18	34	23	21	I/A			-	0	
		3	26	52	18	33	23	21	I/A			-	0	
		4	24	48	19	35	24	21	20 LAeq 22 LA1			E	0	
07/06/2019	07:00	1	53	78	28	65	53	31	29 LAeq	0.5-1.5	NE/SSW	D	0	**Site Related Noise Events:** General mine activity 29-32 Dozer operation 31 **Other Noise Events:** Traffic 38-66 Birds 52-75 Horn 65
		2	47	67	26	60	48	31	30 LAeq			C	0	
		3	50	73	30	63	52	35	29 LAeq			B	0	
		4	46	69	29	58	45	33	31 LAeq			B	0	
		5	37	52	27	46	41	31	31 LAeq			B	0	
		6	43	63	31	54	46	35	32 LAeq			D	0	
	20:59	1	36	58	26	50	33	29	29 LAeq	0.4-1.2	-	F	0	**Site Related Noise Events:** General mine activity 27-32 **Other Noise**
		2	30	49	26	35	32	28	29 LAeq			F	0	

														Events: Road Vehicles 30-58 Distant Gunshots 44-49
	00:39	1	28	39	24	31	29	26	27 LAeq 29 LA1	0.6-1.1	-	E	0	**Site Related Noise Events:** General mine activity 24-33 **Other Noise Events:** Cow 38-45
		2	28	35	25	31	30	27	27 LAeq 30 LA1			E	0	
		3	29	45	25	32	30	27	27 LAeq 29 LA1			E	0	
		4	31	52	26	35	32	29	30 LAeq 33 LA1			D	0	
Matong/ Coomalgah – TN2														
04/06/2019	14:26	1	44	65	32	56	46	35	34 LAeq	5.4-6.5	SW/SSW	D	0	**Site Related Noise Events:** General mine activity 33-40 Horns 42 Boggabri also active **Other Noise Events:** Wind 35-55 Birds 43 Road Vehicles 72-80 Plane 45
		2	44	59	36	53	47	39	33 LAeq			D	0	
		3	41	59	35	49	43	37	34 LAeq			D	0	
		4	42	57	32	49	45	35	34 LAeq			D	0	
		5	51	80	33	60	45	36	34 LAeq			D	0	
		6	44	60	34	54	47	38	34 LAeq			D	0	
	19:42	1	34	62	28	44	36	30	34 LAeq	1.4-2.1	SW/SSW	E	0	**Site Related Noise Events:** General truck noise 33-38 **Other Noise Events:**
		2	34	47	27	40	37	30	30 LAeq			F	0	

														Other industry 31 Fence ting 62 Plane 37-47
	22:04	1	31	59	19	43	32	21	24 LAeq 27 LA1	0.2-1.6	S/WSW	D	0	**Site Related Noise Events:** Truck noise 20-27 **Other Noise Events:** Animal 34 Car engine tings 44-67
		2	24	44	19	34	27	20	21 LAeq 23 LA1			E	0	
		3	24	49	18	34	26	19	20 LAeq 22 LA1			E	0	
		4	33	67	19	35	25	20	23 LAeq 26 LA1			D	0	
05/06/2019	13:04	1	38	61	28	51	39	31	N/M	4.4-5.1	SE/SSE	D	0	**Site Related Noise Events:** Mine activity barely audible **Other Noise Events:** Wind related noise 40-61 Car pass-by 71-80 Birds 60-72
		2	42	72	31	42	41	35	I/A			C	0	
		3	40	62	31	48	42	33	I/A			D	0	
		4	50	80	29	54	40	31	I/A			C	0	
		5	41	68	29	49	43	34	N/M			D	0	
		6	40	54	33	48	43	36	I/A			D	0	
	19:25	1	24	46	46	30	25	22	I/A	0.5-0.8	NE/ENE	F	0	**Site Related Noise Events:** Inaudible **Other Noise Events:** Road Vehicles 20-25
		2	22	39	39	26	23	21	I/A			E	0	
	22:04	1	21	44	20	27	22	20	I/A	0-0.8	-	E	0	**Site Related Noise Events:**

		2	46	73	20	53	28	20	I/A			-	0	Inaudible **Other Noise Events:** Road Vehicles 38-70
		3	20	32	20	23	21	20	I/A			-	0	
		4	25	48	20	36	24	20	I/A			-	0	
06/06/2019	14:40	1	46	74	23	50	29	24	24 LAeq	0.6-1.8	W/WSW	A	0	**Site Related Noise Events:** General mine activity 23-28 **Other Noise Events:** Road Vehicles 74-77 Birds 25-57
		2	50	79	22	53	30	23	24 LAeq			C	0	
		3	29	50	21	42	28	23	23 LAeq			D	0	
		4	30	56	22	40	26	23	21 LAeq			A	0	
		5	33	60	22	38	26	22	22 LAeq			C	0	
		6	47	75	21	56	33	22	18 LAeq			D	0	
	20:48	1	22	43	18	29	24	20	22 LAeq	0.6-1.1	NE/WSW	-	0	**Site Related Noise Events:** Faint drone 20-24 **Other Noise Events:** Bat 40-43
		2	21	42	18	26	22	19	20 LAeq			E	0	
	23:22	1	31	52	19	37	34	24	29 LAeq 34 LA1	0.7-1.1	NE	E	0	**Site Related Noise Events:** Truck noise 26-34 **Other Noise Events:** Bat 52-55 Wind related noise 24
		2	22	53	17	32	21	18	I/A			D	0	
		3	27	52	18	33	20	18	I/A			E	0	
		4	26	55	19	34	28	20	I/A			D	0	
07/06/2019	07:00	1	36	54	26	45	38	29	34 LAeq	0.5-1.5	NE/SSW	D	0	**Site Related Noise Events:** General mine activity 26-41
		2	37	61	25	48	37	29	32 LAeq			C	0	

		3	40	69	32	49	41	35	36 LAeq			B	0	Haul Trucks 28-40 Dozer operations 30-44 **Other Noise Events:** Birds 40-70 Traffic 35-56
		4	41	62	35	47	42	37	40 LAeq1			B	0	
		5	43	64	34	50	44	38	42 LAeq1			B	0	
		6	40	66	28	48	41	31	35 LAeq			D	0	
	19:25	1	31	46	21	42	35	22	<25 LAeq	1-1.4	E/NNE	F	0	**Site Related Noise Events:** General mine activity Faintly audible **Other Noise Events:** Distant gunshots 40 Insects 35-45
		2	29	40	21	37	35	21	I/A			F	0	
	22:00	1	25	41	22	31	28	23	I/A	0.3-1	E/W	-	0	**Site Related Noise Events:** General mine activity 22-33 Tonal reversing tone 26 Boggabri also active **Other Noise Events:** Road Vehicles 30
		2	28	37	23	34	31	24	27 LAeq 33 LA1			F	0	
		3	28	38	23	34	30	25	27 LAeq 32 LA1			F	0	
		4	26	34	23	31	28	25	25 LAeq 29 LA1			F	0	

Notes:

- Acronyms used: I/A = Inaudible, m/s = metres/second, dB = decibel.
- Noise Criteria do not apply for any following weather conditions:
  a) Wind speeds greater than 3m/s at 10m above ground level (indicated in red)
  b) Stability Category F temperature inversion conditions and wind speeds greater than 2m/s, 10m above the ground
  c) Stability category G temperature inversions.

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 Obtained
Tarrawonga* (TB1)	Blast Noise	dB (Lin Peak)	Every Blast	8	87.75	108.50	N/A	N/A	05/06/19
	Blast Vibration	mm/s	Every Blast	8	0.30	0.77	N/A	N/A	05/06/19
Coomalgah	Blast Noise	dB (Lin Peak)	Every Blast	8	85.23	113.20	120	Nil	20/06/19
	Blast Vibration	mm/s	Every Blast	8	0.44	1.32	10	Nil	05/06/19

*****Mine owned property – no limit apply*

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 24 hr average (µg/m^3)	Continuous	0	17.2	48.9

*****Mine owned property – no limit apply*

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 and 2 below
Sampling Period: July 2019
Obtained Date: 13/08/2019
Publication Date: 14/08/2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
7	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	--
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
8	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
25	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
26	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

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 Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
11	Conductivity	µS/cm	6 monthly – (Jun- Dec)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm.

Table 4 – Quarterly Attended Noise Monitoring.

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

No Noise Monitoring data reported for July.

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
Tarrawonga* (TB1)	Blast Noise	dB (Lin Peak)	Every Blast	7	102.54	110.80	N/A	N/A	04/07/19
	Blast Vibration	mm/s	Every Blast	7	0.50	0.73	N/A	N/A	12/07/19
Coomalgah	Blast Noise	dB (Lin Peak)	Every Blast	7	97.60	103.60	120	Nil	15/07/19
	Blast Vibration	mm/s	Every Blast	7	0.50	1.82	10	Nil	15/07/19

*****_Mine owned property – no limit apply_

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 24 hr average (µg/m^3)	Continuous	6.04	18.16	44.5

*****_Mine owned property – no limit apply_

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 and 2 below
Sampling Period: August 2019
Obtained Date: 1/09/2019
Publication Date: 14/09/2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
7	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	--
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
8	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
25	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
26	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

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 Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
11	Conductivity	µS/cm	6 monthly – (Jun- Dec)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	1	13/08/19	-	-	-	-	3,000
	Oil & Grease	mg/L		1	13/08/19	-	-	-	-	<5
	pH	pH		1	13/08/19	-	-	-	-	8.6
	TSS	mg/L		1	13/08/19	-	-	-	-	15

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm.

Table 4 – Quarterly Attended Noise Monitoring.

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

No Noise Monitoring data reported for August.

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
Tarrawonga* (TB1)	Blast Noise	dB (Lin Peak)	Every Blast	6	104.3	114.8	N/A	N/A	8/8/2019
	Blast Vibration	mm/s	Every Blast	6	0.15	0.26	N/A	N/A	29/08/19
Coomalgah	Blast Noise	dB (Lin Peak)	Every Blast	6	97.9	110.0	120	Nil	8/8/2019
	Blast Vibration	mm/s	Every Blast	6	0.16	0.3	10	Nil	29/08/19

*****_Mine owned property – no limit apply_

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 24 hr average (µg/m^3)	Continuous	7.4	29.4	83.5

*****_Mine owned property – no limit apply_

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 and 2 below
Sampling Period: September 2019
Obtained Date: 2/10/2019
Publication Date: 14/10/2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
7	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	--
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
8	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
25	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
26	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

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 Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	1	11/09/19	-	-	-	-	3,430
	Lead	mg/L		1	11/09/19	-	-	-	-	0.003
	pH	pH		1	11/09/19	-	-	-	-	8.0
	Standing Water Level	metres		1	11/09/19	-	-	-	-	7.99
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	1	11/09/19	-	-	-	-	530
	Lead	mg/L		1	11/09/19	-	-	-	-	0.006
	pH	pH		1	11/09/19	-	-	-	-	6.9
	Standing Water Level	metres		1	11/09/19	-	-	-	-	4.80
11	Conductivity	µS/cm	6 monthly – (Jun- Dec)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	1	11/09/19	-	-	-	-	3,460
	Lead	mg/L		1	11/09/19	-	-	-	-	0.002
	pH	pH		1	11/09/19	-	-	-	-	7.4
	Standing Water Level	metres		1	11/09/19	-	-	-	-	10.24
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm.

Table 4 – Quarterly Attended Noise Monitoring.

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

(Extracts from consultants' report for the quarter)

Date	Time	Total Noise Levels (dB)						Mine LAeq Noise Level (dB)	Wind Speed (m/s)	Wind Direction	Stability Category	Rain (mm)
		LA eq	LA max	LA min	LA1	LA10	LA90					
Matong/ Coomalgah - TN2												
16/09/19	14:28	42	60	29	51	46	34	<30	4.6	260	D	0
	14:46	43	61	29	52	46	32	<30	4.7	266	D	0
	15:02	42	60	31	53	44	33	<32	4.1	294	C	0
	15:19	41	56	32	48	44	35	<35	2.2	291	D	0
	15:35	40	55	30	49	43	33	<35	1.8	283	D	0
	15:52	37	66	27	44	39	30	<35	1.4	288	D	0
	21:50	33	57	24	38	35	28	<30	1.6	6	F	0
	22:06	34	52	26	39	37	30	33	1	11	E	0
	22:23	34	63	25	39	36	30	34	1.1	18	F	0
	02:39	33	44	26	38	35	29	34	1.4	4	F	0
	22:55	33	61	24	38	35	28	33	1.7	11	F	0
	23:11	32	46	24	38	35	28	33	1.2	355	F	0
17/09/19	12:42	58	74	41	69	61	45	IA	10.3	211	D	0
	12:56	61	77	47	71	64	52	IA	12.1	218	D	0
	13:13	56	70	46	66	59	50	IA	11.4	194	D	0
	13:29	56	68	46	65	59	49	IA	10.4	186	D	0

	13:46	57	71	46	66	60	50	IA	9.7	200	D	0
	14:02	56	80	44	65	58	48	IA	9.3	190	D	0
	21:33	24	44	19	31	26	21	23	0	-	-	0
	21:50	27	44	20	33	29	22	26	0	-	-	0
	22:01	22	54	17	28	23	18	21	0	-	-	0
	22:19	20	35	17	25	21	17	20	0	-	-	0
	22:36	22	46	17	29	23	18	19	0	-	-	0
	22:54	21	40	17	28	24	18	20	1	53	G	0
18/09/19	13:37	34	64	24	43	33	26	28	3.4	75	C	0.2
	13:57	36	62	23	47	34	26	NM	2.5	96	D	0
	14:16	36	66	24	45	35	28	NM	1.6	56	B	0
	14:35	33	61	26	40	35	29	NM	3.2	118	B	0
	14:51	35	61	26	43	34	29	NM	3.4	147	B	0
	15:07	38	64	28	48	36	30	NM	4.2	174	C	0
	21:37	24	57	17	29	22	18	19	1.7	111	E	0
	21:50	20	42	17	27	21	18	18	0.7	99	F	0
	22:07	21	43	19	27	22	19	20	1.8	154	E	0
	22:18	21	43	18	26	22	19	20	1.8	149	E	0
	22:33	24	53	18	30	23	20	NM	1.1	128	F	0
	22:53	30	47	20	36	34	22	IA	0	-	-	0
19/09/19	11:24	34	60	24	43	33	26	29	1.6	138	A	0
	11:42	35	63	23	44	32	25	28	1.7	155	A	0
	12:00	35	64	22	41	32	25	27	1.4	265	A	0
	12:16	36	70	23	39	31	26	28	0.6	204	A	0
	12:41	32	60	24	40	32	26	28	0.8	147	A	0
	12:58	35	66	24	42	34	26	29	1.9	209	A	0
	21:29	39	49	33	45	41	35	36	4	86	D	0

	21:45	39	52	32	46	41	36	36	5.6	99	D	0
	22:01	43	58	35	51	45	37	NM	4.2	92	D	0
	22:16	42	56	35	50	45	37	NM	4.6	99	D	0
	22:33	43	58	35	52	46	38	NM	4.8	102	D	0
	22:49	41	57	34	50	44	37	NM	4.6	99	D	0
Barbers Lagoon - TN3												
16/09/19	16:42	38	56	26	48	40	29	IA	4	260	C	0
	16:58	42	56	29	51	45	33	IA	4.1	294	C	0
	17:17	40	63	26	47	42	37	IA	2.5	292	D	0
	17:30	42	58	33	52	43	37	IA	2.1	290	D	0
	17:40	45	63	27	56	46	40	IA	1.8	284	D	0
	17:51	42	60	30	48	44	35	IA	1.4	288	D	0
	20:18	23	43	18	32	24	20	IA	1.5	8	E	0
	20:37	26	50	18	38	23	18	IA	0.8	26	F	0
	01:12	40	51	28	47	45	31	NM	1.1	52	F	0
	01:27	31	41	25	37	35	27	30	4.2	222	D	0
	01:44	23	49	19	29	25	20	23	2.5	210	D	0
	02:01	24	40	20	30	26	22	24	1.2	57	F	0
17/09/19	10:26	47	73	40	53	47	43	IA	3.1	121	B	0
	10:41	46	59	38	53	49	42	IA	4.4	153	D	0
	11:01	56	66	51	61	58	53	IA	6.5	177	D	0
	11:32	52	66	43	58	55	47	IA	8.2	181	D	0
	11:50	57	72	51	63	58	54	IA	8	178	D	0
	12:06	58	73	51	65	60	55	IA	9.7	214	D	0
	20:07	31	46	26	36	33	28	31	1	144	E	0
	20:25	26	54	18	35	25	19	26	1.2	75	E	0
	23:41	22	52	17	33	22	17	18	1.9	17	D	0

	23:58	24	57	16	27	19	17	17	1.5	21	D	0
	00:15	21	50	17	30	21	18	18	1.8	11	E	0
	00:34	21	45	17	31	23	17	19	1.4	1	F	0
18/09/19	10:42	42	60	32	50	46	35	IA	3.5	138	B	0
	10:58	45	64	34	54	47	37	IA	3.6	137	D	0
	11:15	41	57	31	48	43	36	IA	2.6	122	A	0
	11:30	44	65	33	54	46	36	IA	2.6	135	A	0
	11:46	43	64	30	51	46	34	IA	3.8	140	B	0
	12:01	41	58	33	49	44	37	IA	3.7	119	B	0
	20:30	39	52	33	45	41	36	34	3.3	145	D	0
	20:53	40	51	35	46	42	38	<35	3.1	145	D	0
	01:04	36	43	30	40	38	34	33	2.6	105	F	0
	01:21	37	48	31	41	39	34	33	1.5	173	E	0
	01:38	31	42	25	39	35	27	31	0.8	139	E	0
	01:55	32	46	23	39	35	27	32	0.9	359	D	0
19/09/19	09:22	42	63	24	54	44	28	IA	1.9	45	A	0
	09:44	45	69	25	57	47	29	IA	1.6	63	A	0
	10:00	44	64	24	55	48	28	IA	2	119	B	0
	10:15	39	62	23	49	41	27	IA	2	55	C	0
	10:30	36	60	23	47	39	26	IA	0.8	35	A	0
	10:47	44	65	23	57	46	25	IA	0.7	80	A	0
	19:40	28	49	25	34	30	26	IA	1.8	64	E	0
	19:57	26	42	23	34	27	25	IA	1.2	15	E	0
	00:53	32	47	29	36	34	30	32	5	98	D	0
	01:14	34	53	29	40	35	31	33	4.4	93	E	0
	01:37	34	53	30	40	35	32	33	4	102	D	0
	01:51	32	50	28	37	34	30	32	3.4	105	D	0

Bungalow - TN4												
16/09/19	21:10	30	65	18	32	25	19	IA	0.9	9	D	0
	21:23	23	46	18	28	25	19	IA	1.3	18	D	0
	23:49	24	50	17	32	25	19	IA	0.9	330	F	0
	00:04	21	43	17	29	22	18	IA	0.7	330	F	0
	00:19	23	51	18	28	23	19	IA	0.7	1	F	0
	00:35	23	45	18	28	24	20	IA	1.1	9	F	0
17/09/19	14:42	53	64	46	59	56	49	IA	7.7	177	D	0
	14:58	52	71	44	58	54	48	IA	5.5	166	C	0
	15:13	53	70	44	62	55	47	IA	5.5	142	D	0
	15:28	53	62	48	57	55	50	IA	6.7	121	D	0
	21:00	34	67	17	36	26	18	20	0.9	20	E	0
	21:15	21	45	17	30	21	18	20	0.7	319	D	0
	01:07	37	72	20	40	33	21	IA	1	2	D	0
	01:26	39	76	19	27	23	20	IA	1.8	28	D	0
	01:41	37	73	20	36	31	21	IA	1.2	21	D	0
	01:57	33	71	20	33	23	20	IA	0.7	330	F	0
18/09/19	13:12	41	76	22	44	36	25	IA	2.7	83	A	0
	13:30	39	75	22	40	34	25	IA	1.6	132	A	0
	13:46	40	74	22	46	37	25	IA	3.4	72	B	0.2
	14:03	37	71	22	45	33	25	IA	2.5	113	C	0
	14:20	39	76	23	40	31	25	IA	1.9	65	B	0
	14:37	52	83	22	58	38	25	IA	2.2	172	B	0
	20:14	38	70	29	42	39	33	IA	3.4	140	D	0
	20:30	39	75	26	41	36	29	IA	3.3	145	D	0
	23:35	35	65	26	40	37	29	IA	2.5	104	D	0

	23:52	29	55	21	35	31	25	<25	3.4	97	D	0
	00:09	26	55	21	30	27	23	22	3.7	107	E	0
	00:27	30	49	23	40	31	25	30	3.6	121	E	0
19/09/19	13:43	49	79	24	59	51	29	IA	2.3	133	A	0
	14:05	40	57	24	52	43	27	IA	1.2	137	A	0
	14:21	39	62	26	48	42	28	IA	1.9	159	A	0
	14:38	40	60	26	53	42	29	IA	1.6	166	A	0
	14:56	40	65	26	51	41	29	IA	1.9	238	B	0
	15:11	39	63	26	52	40	27	IA	0.8	280	A	0
	20:39	42	61	39	45	44	41	IA	2.1	20	D	0
	20:54	41	64	37	43	42	39	IA	2.4	88	D	0
	23:32	40	68	33	47	42	35	NM	5.1	95	D	0
	23:47	43	51	37	47	46	39	NM	5.4	97	D	0
	00:04	41	47	35	46	43	37	NM	4.8	101	D	0
	00:19	38	50	32	44	42	34	NM	4.5	101	D	0
20/09/19	09:18	45	65	28	56	49	33	IA	2.6	36	A	0
	09:33	40	65	26	50	42	31	IA	2.4	27	A	0
	09:49	44	68	26	56	45	30	IA	3.6	48	B	0
	10:05	43	73	25	54	44	30	IA	2.3	4	A	0
	10:21	44	66	26	54	46	29	IA	2.2	69	A	0
	10:36	47	72	27	59	49	30	IA	2	68	A	0

Notes:

- Acronyms used: I/A = Inaudible, m/s = metres/second, dB = decibel.
- Coloured Cells = Noise Criteria do not apply for any following weather conditions:
    a) Wind speeds greater than 3m/s at 10m above ground level
    b) Stability Category F temperature inversion conditions and wind speeds greater than 2m/s, 10m above the ground
    c) Stability category G temperature inversions.

Attended noise monitoring was conducted at the “Bungalow” (TN4), “Barbers Lagoon” (TN3) and “Matong” (TN2) properties from 16th to the 20th of September 2019. The summary table (Table 4) displays a comprehensive results table displaying all measurements. The noise criterion for the mine is 35dB(A) Leq (15 min) for all operating times.

Noise from the mine must not exceed 45 dB(A) L1 (1 min) between 10 pm and 7 am. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the mine. The results of the sleep disturbance monitoring show that the measured L1 (1 min) noise level did not exceed the sleep disturbance criterion.

The results above show that noise emissions from the mine did not exceed the operational noise criterion at the “Barbers Lagoon”, “Bungalow” or “Matong” monitoring locations during the monitoring event during the entire monitoring period.

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
Tarrawonga* (TB1)	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	8	96.2	104.7	**N/A**	**N/A**	11/09/19
	Blast Vibration	**mm/s**	**Every Blast**	8	0.28	0.45	**N/A**	**N/A**	11/09/19
Coomalgah	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	8	96.4	102.7	**120**	**Nil**	10/09/19
	Blast Vibration	**mm/s**	**Every Blast**	8	0.19	0.38	**10**	**Nil**	18/09/19

*****_Mine owned property – no limit apply_

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 24 hr average (µg/m^3)	Continuous	10.4	42.4	266.8[#]

*****_Mine owned property – no limit apply_

[#] _Dust Storm in early August_

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 and 2 below
Sampling Period: October 2019
Obtained Date: 2/11/2019
Publication Date: 04/11/2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
7	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	--
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
8	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
25	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
26	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

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 Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
11	Conductivity	µS/cm	6 monthly – (Jun- Dec)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm.

Table 4 – Quarterly Attended Noise Monitoring.

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

No Noise Monitoring data reported for October.

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
Tarrawonga* (TB1)	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	5	102.5	116.6*	**N/A**	**N/A**	5/10/2019
	Blast Vibration	**mm/s**	**Every Blast**	5	0.43	0.64	**N/A**	**N/A**	10/10/2019
Coomalgah	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	5	95.0	102.2	**120**	**Nil**	10/10/2019
	Blast Vibration	**mm/s**	**Every Blast**	5	0.44	1.32	**10**	**Nil**	10/10/2019

*****_Mine owned property – no limit apply_

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 24 hr average (µg/m^3)	Continuous	0	55.1	243[#]

*****_Mine owned property – no limit apply_

[#] _Bushfire and smoke haze in surrounding areas_

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 and 2 below
Sampling Period: November 2019
Obtained Date: 2/12/2019
Publication Date: 04/12/2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
7	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	--
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
8	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
26	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

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 Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
11	Conductivity	µS/cm	6 monthly – (Jun- Dec)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	1	18/11/12	-	-	-	-	3,700
	Oil & Grease	mg/L		1	18/11/12	-	-	-	-	<5
	pH	pH		1	18/11/12	-	-	-	-	8.6
	TSS	mg/L		1	18/11/12	-	-	-	-	13

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm.

Table 4 – Quarterly Attended Noise Monitoring.

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

No Noise Monitoring data reported for November.

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
Tarrawonga* (TB1)	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	8	99.3	113.7	**N/A**	**N/A**	3/12/2019
	Blast Vibration	**mm/s**	**Every Blast**	8	0.47	0.9	**N/A**	**N/A**	3/12/2019
Coomalgah	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	8	100.7	110.8	**120**	**Nil**	3/12/2019
	Blast Vibration	**mm/s**	**Every Blast**	8	0.41	1.36	**10**	**Nil**	3/12/2019

*****_Mine owned property – no limit apply_

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

Location	No. of samples required by license	Lowest sample value	Mean of sample	Highest sample value
"Flixton" property* TEOM 24 hr average (µg/m^3)	Continuous	0	72.1	376.2[#]

*****_Mine owned property – no limits apply_

[#] _Bushfire and smoke haze in surrounding areas_

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 and 2 below
Sampling Period: December 2019
Obtained Date: 20/01/2020
Publication Date: 20/01/2020

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
7	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	--
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
8	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
26	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

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 Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
11	Conductivity	µS/cm	6 monthly – (Jun- Dec)	1	25/11/2019	20/01/2020	-	-	-	2,097
	Lead	mg/L		1	25/11/2019	20/01/2020	-	-	-	<0.001
	pH	pH		1	25/11/2019	20/01/2020	-	-	-	7.85
	Standing Water Level	metres		1	25/11/2019	20/01/2020	-	-	-	9.98
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	0	-	-	-	-	-	-
	Lead	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Standing Water Level	metres		0	-	-	-	-	-	-
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm.

Table 4 – Quarterly Attended Noise Monitoring.

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

(Extract from consultants' report for the quarter)

Date	Time	Total Noise Levels (dB)						Mine LAeq Noise Level (dB)	Wind Speed (m/s)	Wind Direction	Stability Category	Rain (mm)
		LA eq	LA max	LA min	LA1	LA10	LA90					
Matong/ Coomalgah - TN2												
02/12/19	15:22	58	68	48	64	61	51	<41 (IA)	9.4	246	D	0
	15:38	57	71	45	65	61	49	<39 (IA)	10.9	256	D	0
	15:53	56	70	46	64	60	50	<40 (IA)	9.4	251	D	0
	16:09	53	66	41	60	57	48	<38 (IA)	10.4	249	D	0
	16:23	54	66	43	62	57	47	<37 (IA)	9.3	240	D	0
	16:38	54	62	43	59	57	49	<39 (IA)	8.6	258	D	0
	21:02	36	54	30	40	38	34	33	4.5	232	E	0
	21:18	37	49	32	42	40	35	35	4.1	232	E	0
	22:01	33	44	26	38	35	29	33	4.5	227	D	0
	22:20	34	48	28	39	36	31	34	4.5	206	D	0
	22:39	34	46	27	40	37	31	34	2.9	210	E	0
	22:55	37	47	31	41	39	34	37	2.3	208	E	0
03/12/19	12:42	58	74	41	69	61	45	IA	10.3	211	D	0
	12:56	61	77	47	71	64	52	IA	12.1	218	D	0
	13:13	56	70	46	66	59	50	IA	11.4	194	D	0
	13:29	56	68	46	65	59	49	IA	10.4	186	D	0
	13:46	57	71	46	66	60	50	IA	9.7	200	D	0
	14:02	56	80	44	65	58	48	IA	9.3	190	D	0

	21:33	24	44	19	31	26	21	23	0	-	-	0
	21:38	38	46	30	43	40	35	38	3	277	D	0
	22:00	37	44	31	41	39	34	37	3	275	E	0
	22:15	36	50	30	40	38	33	36	3	279	E	0
	22:31	32	44	25	37	35	28	32	2.5	286	D	0
	22:48	27	50	22	34	30	24	27	2.5	281	E	0
04/12/19	11:07	35	58	25	47	37	28	33	2.2	268	A	0
	11:25	36	55	29	46	41	31	33	1.6	213	A	0
	11:43	40	53	26	48	44	30	33	2.8	198	B	0
	11:59	35	52	27	45	39	29	30	2.4	258	A	0
	12:22	35	53	24	46	37	28	30	4.4	263	C	0
	12:41	42	57	26	52	46	28	<30	3.5	298	B	0
	20:53	43	51	40	46	44	43	42	3.1	260	E	0
	21:10	43	50	39	45	44	43	42	2.1	277	E	0
	22:00	40	60	32	44	42	36	39	2.3	269	E	0
	22:18	37	45	31	41	40	34	37	1.9	168	D	0
	22:35	37	45	29	41	39	33	37	1	92	E	0
	22:51	38	50	33	43	40	36	38	1.8	55	E	0
05/12/19	12:43	35	52	24	45	39	27	<30	4.5	250	C	0
	13:14	31	44	26	37	33	28	<30	2.3	201	A	0
	13:30	32	48	27	37	34	30	32	2.5	93	A	0
	13:49	37	56	27	45	40	30	30	3.2	209	B	0
	14:10	38	53	30	49	41	33	30	4.2	263	C	0
	14:32	34	46	27	43	37	29	32	1.8	159	A	0
	21:19	43	50	40	45	44	42	41	1.6	284	D	0
	21:34	43	50	38	45	44	41	41	1.6	284	D	0
	22:00	41	64	38	43	42	40	38	1.1	299	D	0

	22:16	41	48	36	43	42	39	37	1	306	E	0
	22:32	40	44	35	42	41	38	36	0	-	-	0
	22:48	37	46	30	41	39	34	<35	0	-	-	0
Barbers Lagoon - TN3												
02/12/19	19:18	48	72	34	58	49	39	<29 (IA)	5.7	247	D	0
	19:33	50	73	34	61	50	40	<30 (IA)	5.4	240	D	0
	00:44	30	55	17	41	33	17	<7 (IA)	0	-	-	0
	00:59	25	46	17	37	28	17	<7 (IA)	0.7	72	D	0
	01:14	25	47	17	36	26	17	<7 (IA)	0	-	-	0
	01:29	26	57	17	36	28	17	<7 (IA)	0.8	53	D	0
03/12/19	09:30	51	79	25	57	42	30	<20 (IA)	3.6	185	B	0
	09:47	46	67	22	59	48	27	<17 (IA)	3.2	222	C	0
	10:04	44	71	26	50	39	29	<19 (IA)	3.6	173	C	0
	10:20	56	82	22	67	48	26	<16 (IA)	3.8	260	D	0
	10:35	37	62	21	49	38	24	<14 (IA)	3.2	272	C	0
	10:52	34	52	22	46	35	24	<14 (IA)	2.6	250	A	0
	19:22	48	70	31	61	48	37	<27 (IA)	5.6	256	D	0
	19:37	42	65	30	52	43	35	<25 (IA)	4.3	250	D	0
	01:00	21	44	17	31	20	17	<7 (IA)	0.8	33	E	0
	01:15	21	42	17	30	21	17	<7 (IA)	0	-	-	0
	01:30	20	40	17	29	20	17	<7 (IA)	0.6	62	E	0
	01:45	29	48	17	43	28	17	<7 (IA)	1	24	D	0
04/12/19	09:05	41	62	28	52	43	32	<22 (IA)	3.5	195	D	0
	09:22	45	67	27	58	46	31	<21 (IA)	3.2	225	D	0
	09:37	49	74	29	62	51	33	<23 (IA)	4.3	233	C	0
	10:12	59	86	23	70	58	30	<20 (IA)	3.3	242	B	0

	10:30	37	60	24	46	39	26	<16 (IA)	2.6	241	A	0
	19:04	47	76	31	56	46	35	<25 (IA)	5.1	245	C	0
	19:21	39	56	31	49	41	33	<23 (IA)	5.6	245	D	0
	00:49	20	45	16	28	20	17	<7 (IA)	1.1	18	D	0
	01:05	21	52	16	28	20	17	<7 (IA)	0.8	348	E	0
	01:22	18	37	16	24	19	16	<6 (IA)	0	-	-	0
	01:39	24	43	16	35	28	17	<7 (IA)	0.9	44	E	0
05/12/19	09:10	45	71	24	57	45	29	<19 (IA)	2.5	177	C	0
	09:25	49	71	23	62	50	29	<19 (IA)	1.6	187	A	0
	09:40	48	68	23	60	51	28	<18 (IA)	1.4	166	A	0
	09:55	53	71	25	65	56	30	<20 (IA)	2.5	227	B	0
	10:10	43	63	22	56	45	27	<17 (IA)	2.9	168	C	0
	10:25	44	67	23	57	45	27	<17 (IA)	1.1	168	A	0
	19:40	41	58	27	51	44	31	<21 (IA)	3.6	237	D	0
	19:58	45	66	25	58	46	29	<19 (IA)	3	244	D	0
	00:45	26	38	21	31	27	23	<13 (IA)	1.5	2	F	0
	01:01	24	42	20	29	26	22	<12 (IA)	1.7	3	F	0
	01:18	27	37	20	30	29	23	<13 (IA)	1.7	352	F	0
	01:34	27	42	20	31	29	23	<13 (IA)	1.7	349	F	0
06/12/19	09:30	36	62	21	48	37	24	<14 (IA)	1.3	177	A	0
	09:46	46	70	20	59	46	23	<13 (IA)	2.2	253	B	0
	10:00	34	58	20	44	37	22	<12 (IA)	1.9	161	B	0
	10:16	32	54	20	44	35	22	<12 (IA)	2.3	297	B	0
	10:33	40	67	20	50	37	22	<12 (IA)	1.9	336	A	0
	10:50	32	48	22	42	35	24	<14 (IA)	3.2	256	B	0
Bungalow - TN4												

02/12/19	12:54	63.9	75.7	51.5	71.2	67.2	56.4	<46 (IA)	8.4	261	D	0
	13:10	60.8	79.5	48	67.1	63.9	54.6	<45 (IA)	9.9	243	D	0
	13:26	60.3	75.4	43.7	69.1	65	48	<38 (IA)	7.8	233	D	0
	13:41	63.8	76.2	42.3	72.2	67.8	50.4	<40 (IA)	9	252	D	0
	13:58	63.2	76	48.7	69.1	66	56.1	<46 (IA)	7.2	256	D	0
	14:14	63.8	75.8	40.2	71.6	68.2	49.7	<40 (IA)	9.1	259	D	0
	19:48	45	55.4	38.3	50.7	47.6	41.4	<31 (IA)	6.1	240	D	0
	20:03	49.4	65.3	39.9	58.3	51.9	43.7	<34 (IA)	6.9	244	D	0
	23:32	29	47.1	21.6	35.6	32.5	23.1	<13 (IA)	0.8	195	E	0
	23:48	25.4	41.5	17	35	28.3	19.9	<10 (IA)	1.8	207	**G**	0
	00:11	17.9	36.9	15.4	24.4	19.1	16	<6 (IA)	0.9	33	E	0
	00:27	18.7	33.2	15.8	23.7	19.4	16.9	<7 (IA)	1.2	193	D	0
03/12/19	13:32	52.5	69	25.5	62.1	56.4	30	<20 (IA)	2.7	259	A	0
	13:54	49.5	63.8	23.7	59.9	54	29.1	<19 (IA)	4.5	237	D	0
	14:13	49.8	78.8	23.4	58.6	50.4	28.9	<19 (IA)	6.1	277	D	0
	14:29	49.1	66.3	27.2	59.3	52.3	35.3	<25 (IA)	3.5	228	B	0
	14:45	46.4	66.3	23.6	56.8	51.1	27.9	<18 (IA)	4.5	256	C	0
	15:00	48.4	59.9	32.3	56	52.5	35.9	<26 (IA)	5.6	271	C	0
	19:56	41.7	50.2	31.5	45	43.9	36.9	<27 (IA)	3.6	257	D	0
	20:12	42.2	48.9	35	45.4	43.9	39.3	<29 (IA)	3.5	258	D	0
	23:36	23.9	55.7	16	34.7	23.2	16.9	<7 (IA)	0.7	292	F	0
	23:48	19.7	46.7	15.8	28.2	21.2	16.5	<7 (IA)	0	-	-	0
	00:04	20.5	50.8	15.6	32	18.7	16.3	<6 (IA)	0	-	-	0
	00:21	22.5	47.5	15.8	36.2	21.8	16.4	<6 (IA)	0	-	-	0
04/12/19	13:25	34.4	53.8	22.2	45.3	37.6	24.5	<15 (IA)	4.7	265	C	0
	13:41	48.1	67.4	22.7	60.3	51.7	24.7	<15 (IA)	4.7	222	C	0

	13:57	51.7	71.7	24.9	63.5	55.3	30	<20 (IA)	7	244	D	0
	14:13	42.6	55.9	24.7	51.7	47.1	29.4	<19 (IA)	5.6	270	C	0
	14:30	47.7	64.6	23.5	58.2	51.9	28	<18 (IA)	4.7	253	C	0
	14:47	49.6	65.4	28.7	59.7	53.1	35.9	<26 (IA)	4.9	259	C	0
	19:40	41.8	64.2	34.1	54.1	42.3	36.2	<26 (IA)	5.4	246	D	0
	19:58	37.8	60	32.2	44.3	39.2	35	<25 (IA)	3.6	250	D	0
	23:27	27.6	47.7	16.2	43	23.9	17.4	<7 (IA)	0.5	52	F	0
	23:43	20	42.9	15.8	28.1	20.8	16.8	<7 (IA)	1	26	D	0
	23:58	18.3	42.2	15.8	25	20.3	16.4	<6 (IA)	1.1	25	E	0
	00:13	23	52.6	15.7	37.5	20.5	16.4	<6 (IA)	1	31	**G**	0
05/12/19	10:38	30.3	55.5	21.3	41.5	32.1	23.3	<13 (IA)	2.6	151	A	0
	10:52	32.7	48.8	21	42.2	36.3	23.2	<13 (IA)	2.6	149	A	0
	11:13	46	76.9	20.6	56.2	39.5	22.7	<13 (IA)	2.5	205	A	0
	11:30	30.3	46.6	19.8	40.4	35.2	21.7	<12 (IA)	1.8	111	A	0
	11:46	35.8	57	21.2	45.7	38.8	24.4	<14 (IA)	1.4	251	A	0
	12:02	33.8	47.5	24.8	42.1	37.9	27.5	<18 (IA)	2.1	154	A	0
	20:25	52	55.4	41	52.9	52.5	51.6	<42 (IA)	2.4	258	D	0
	20:41	52	55.4	40.6	52.8	52.5	51.5	<42 (IA)	2.3	266	D	0
	23:30	32.4	40.9	23.3	36.9	35.5	29.1	<19 (IA)	2.7	24	D	0
	23:46	32	41.7	23	37.7	36.1	26.7	<17 (IA)	2.7	16	D	0
	00:02	27.9	38.3	21.4	35	33.1	23.1	<13 (IA)	2.4	12	D	0
	00:17	29.4	40.4	18.1	35.3	34.1	20.6	<11 (IA)	1.8	17	D	0

Notes:

- Acronyms used: I/A = Inaudible, m/s = metres/second, dB = decibel.
- Coloured Cells = Noise Criteria do not apply for any following weather conditions:
    d) Wind speeds greater than 3m/s at 10m above ground level
    e) Stability Category F temperature inversion conditions and wind speeds greater than 2m/s, 10m above the ground
    f) Stability category G temperature inversions.

Attended noise monitoring was conducted at the “Bungalow” (TN4), “Barbers Lagoon” (TN3) and “Matong” (TN2) properties from 2nd to the 5th of December 2019. The summary table (Table 4) displays a comprehensive results table displaying all measurements. The noise criterion for the mine is 35dB(A) Leq (15 min) for all operating times.

Noise from the mine must not exceed 45 dB(A) L1 (1 min) between 10 pm and 7 am. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the mine. The results of the sleep disturbance monitoring show that the measured L1 (1 min) noise level did not exceed the sleep disturbance criterion.

The results above show that noise emissions from the mine did not exceed the operational noise criterion at the “Barbers Lagoon”, “Bungalow” or “Matong” monitoring locations during the monitoring event during the entire monitoring period.

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
Tarrawonga* (TB1)	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	8	104.90	117.10*	**N/A**	**N/A**	20/12/2019
	Blast Vibration	**mm/s**	**Every Blast**	8	0.31	1.12	**N/A**	**N/A**	01/03/2019
Coomalgah (TB2)	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	8	100.21	117.50#	**120**	**Nil**	06/12/2019
	Blast Vibration	**mm/s**	**Every Blast**	8	0.31	1.82	**10**	**Nil**	15/07/2019

***Mine owned property – no limits apply.*

 # Overpressure exceedance (>115dB) but in accordance with PA11_0047, EPL12365 and MLs since it was recorded at privately owned property (Coomalgah - TB2) and it was the first exceedance over 76 blast in 12 months (1.3%<5% allowed by approvals above) at this site - Not reported to agencies.

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

Location	No. of samples required by license	Lowest sample value	Mean of sample	Highest sample value
"Flixton" property* TEOM 24 hr average (µg/m³)	Continuous	0	75.57	270.4

***Mine owned property – no limits apply*

 # Bushfire and smoke haze in surrounding areas

Figure 1 – EPL 12365 Onsite Monitoring Locations

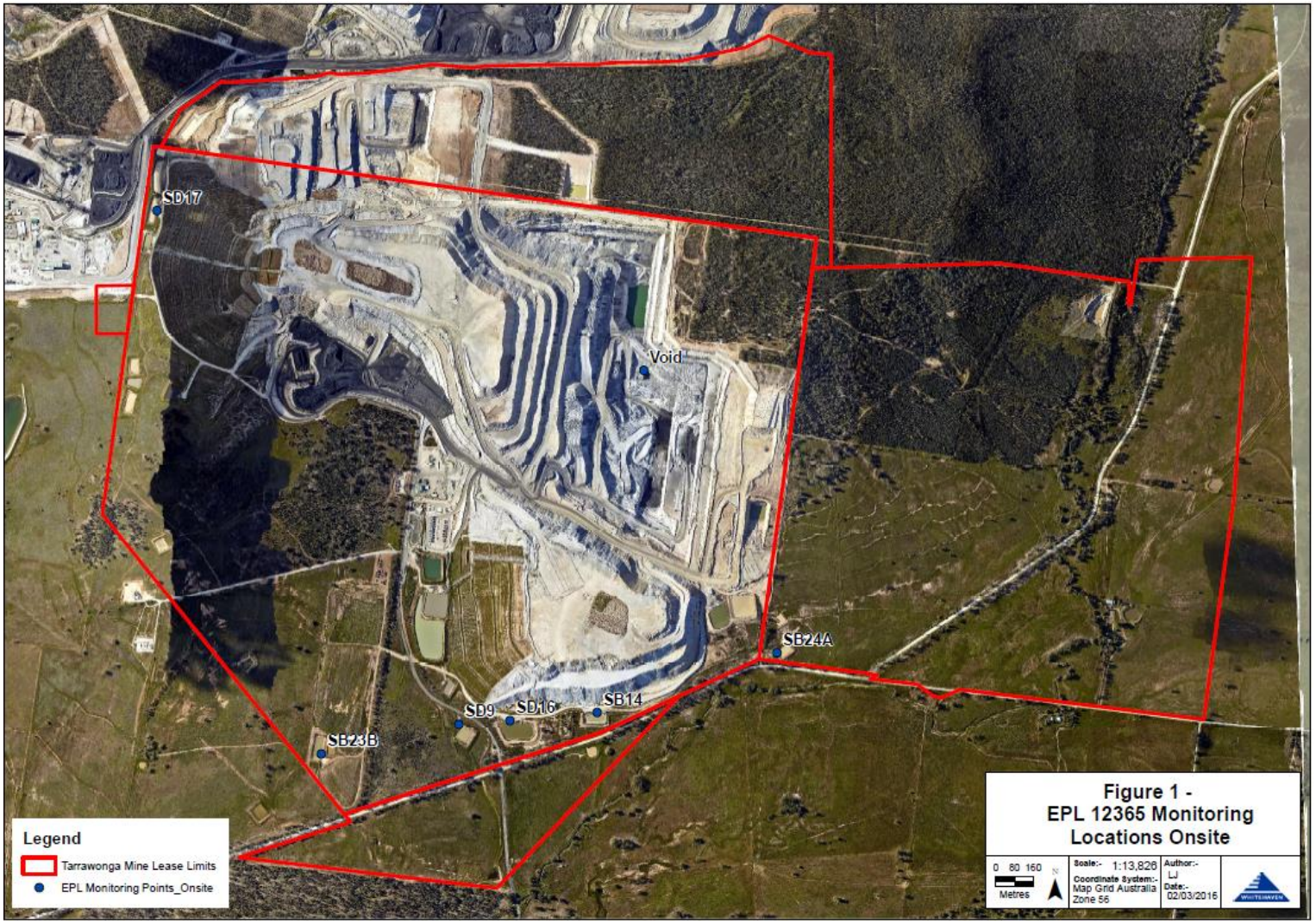
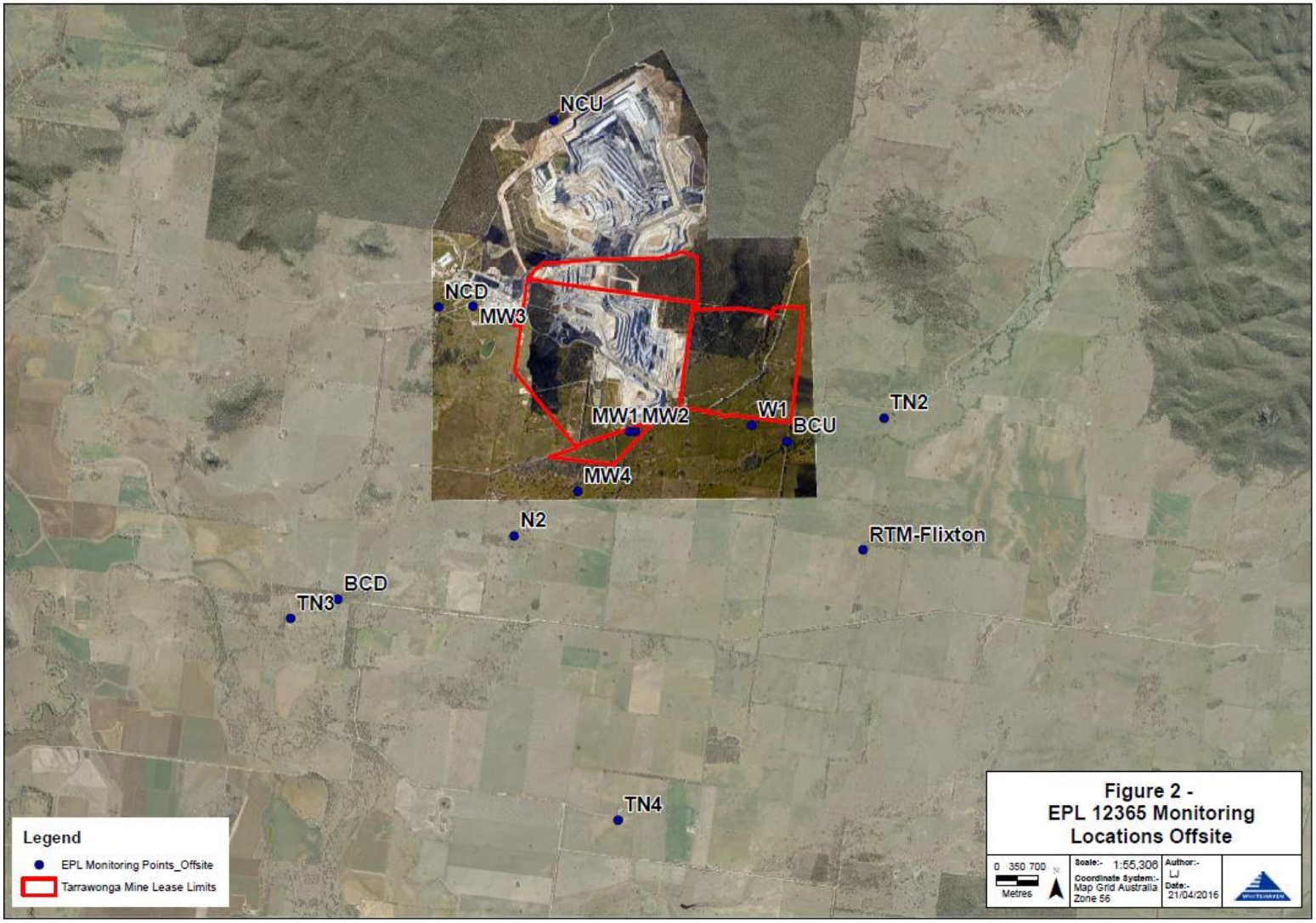


Figure 2 – EPL 12365 Offsite Monitoring Locations



Month of EPL Report:	Date of Original Publishing:	Date of Correction:	Date of Republishing:	Correction/s made:
January 2019	05/02/2019	08/2020	02/09/2020	• Water Quality (Conductivity units) changed for all EPL ID points in Tables 1, 2 and 3 from 'mS/cm' to 'µS/cm' • Water Quality (Conductivity) added as a sampling point in Table 2. • Water Quality (Conductivity units): Note indicating the wrong unit below Table 3 is amended to indicate this change throughout all reports. • Blast Monitoring -Table 5, 'Date Obtained' column updated to 'Date of Max Value Obtained'.
February 2019	12/03/2019	08/2020	02/09/2020	• Water Quality (Conductivity units) changed for all EPL ID points in Tables 1, 2 and 3 from 'mS/cm' to 'µS/cm' • Water Quality (Conductivity) added as a sampling point in Table 2. • Water Quality (Conductivity units): Note indicating the wrong unit below Table 3 is amended to indicate this change throughout all reports. • Blasting results data error, Table 5. Results were incorrectly reported and placed. Table has been amended with the right values in the right locations. Date Obtained has also been amended to account for rearrangement. • Blast Monitoring -Table 5, 'Date Obtained' column updated to 'Date of Max Value Obtained'.
March 2019	08/04/2019	08/2020	02/09/2020	• Water Quality (Conductivity units) changed for all EPL ID points in Tables 1, 2 and 3 from 'mS/cm' to 'µS/cm' • Water Quality (Conductivity) added as a sampling point in Table 2. • Water Quality data missing 'Lead' in Table 3, EPL ID 12. This has now been added. • Water Quality (Conductivity units): Note indicating the wrong unit below Table 3 is amended to indicate this change throughout all reports. • Noise (criteria): Table 5 added to include all monitoring data and weather conditions. This will provide more understanding as to when conditions are considered compliant. • Noise (criteria): Table 4 title has been updated to be more indicative of the monitoring occurring,

				with a subtitle including noise limits for each period. • Noise (criteria): a short but comprehensive summary was written between Table 4 and Table 5 as an interpretation of the results displayed. • Blast Monitoring -Table 5, 'Date Obtained' column updated to 'Date of Max Value Obtained'.
April 2019	06/05/2019	08/2020	02/09/2020	• Water Quality (Conductivity units) changed for all EPL ID points in Tables 1, 2 and 3 from 'mS/cm' to 'µS/cm' • Water Quality (Conductivity) added as a sampling point in Table 2. • Water Quality (Conductivity units): Note indicating the wrong unit below Table 3 is amended to indicate this change throughout all reports. • Blast Monitoring -Table 5, 'Date Obtained' column updated to 'Date of Max Value Obtained'.
May 2019	03/06/2019	08/2020	02/09/2020	• Water Quality (Conductivity units) changed for all EPL ID points in Tables 1, 2 and 3 from 'mS/cm' to 'µS/cm' • Water Quality (Conductivity) added as a sampling point in Table 2. • Water Quality (Conductivity units): Note indicating the wrong unit below Table 3 is amended to indicate this change throughout all reports. • Blast Monitoring -Table 5, 'Date Obtained' column updated to 'Date of Max Value Obtained'. • Blast Monitoring – Table 5, Max values and dates corrected as were previously reported incorrectly.
June 2019	12/07/2019	08/2020	02/09/2020	• Water Quality (Conductivity units) changed for all EPL ID points in Tables 1, 2 and 3 from 'mS/cm' to 'µS/cm' • Water Quality (Conductivity) added as a sampling point in Table 2. • Water Quality data missing from Table 3, EPL ID 11, due to obtaining results after reporting date. This was supposed to be reported in the following month but was missed again. Relevant data/values have been added to this report. • Water Quality (Conductivity units): Note indicating the wrong unit below Table 3 is amended to indicate this change throughout all reports. • Noise (criteria): Table 5 added to include all monitoring data and weather conditions. This will provide more understanding as to when conditions are considered compliant. • Noise (criteria): Table 4 title has been updated to be more indicative of the monitoring occurring, with a subtitle including noise limits for each period. • Noise (criteria): a short but comprehensive summary was written between Table 4 and Table 5 as an interpretation of the results displayed. • Blast Monitoring -Table 5, 'Date Obtained' column updated to 'Date of Max Value Obtained'. • Blast Monitoring – Table 5, Values and dates corrected as were previously reported incorrectly.

July 2019	14/08/2019	08/2020	02/09/2020	• Water Quality (Conductivity units) changed for all EPL ID points in Tables 1, 2 and 3 from 'mS/cm' to 'µS/cm' • Water Quality (Conductivity) added as a sampling point in Table 2. • Water Quality (Conductivity units): Note indicating the wrong unit below Table 3 is amended to indicate this change throughout all reports. • Blast Monitoring -Table 5, 'Date Obtained' column updated to 'Date of Max Value Obtained'. • Blast Monitoring – Table 5, Dates corrected in 'Date of Max Value Obtained' column to reflect date that max value was obtained, not the date that values were calculated.
August 2019	02/09/2019	08/2020	02/09/2020	• Water Quality (Conductivity units) changed for all EPL ID points in Tables 1, 2 and 3 from 'mS/cm' to 'µS/cm' • Water Quality (Conductivity) added as a sampling point in Table 2. • Water Quality (Conductivity units): Note indicating the wrong unit below Table 3 is amended to indicate this change throughout all reports. • Blast Monitoring -Table 5, 'Date Obtained' column updated to 'Date of Max Value Obtained'.
September 2019	14/10/2019	08/2020	02/09/2020	• Water Quality (Conductivity units) changed for all EPL ID points in Tables 1, 2 and 3 from 'mS/cm' to 'µS/cm' • Water Quality (Conductivity) added as a sampling point in Table 2. • Water Quality (Conductivity units): Note indicating the wrong unit below Table 3 is amended to indicate this change throughout all reports. • Noise (criteria) has been updated in Table 4 to include weather conditions, LAmax, LAmin, LA10 and LA90 parameters. Notes were also written below Table 4 to exhibit acronyms and non-compliant weather conditions. • Noise (criteria): Table 4 title has been updated to be more indicative of the monitoring occurring, with a subtitle including noise limits for each period. • Noise (criteria): a short but comprehensive summary was written below Table 4 as an interpretation of the results displayed. • Blast Monitoring -Table 5, 'Date Obtained' column updated to 'Date of Max Value Obtained'.
October 2019	04/11/2019	08/2020	02/09/2020	• Water Quality (Conductivity units) changed for all EPL ID points in Tables 1, 2 and 3 from 'mS/cm' to 'µS/cm' • Water Quality (Conductivity) added as a sampling point in Table 2. • Water Quality (Conductivity units): Note indicating the wrong unit below Table 3 is amended to indicate this change throughout all reports. • Blast Monitoring -Table 5, 'Date Obtained' column updated to 'Date of Max Value Obtained'.

November 2019	06/12/2019	08/2020	02/09/2020	• Water Quality (Conductivity units) changed for all EPL ID points in Tables 1, 2 and 3 from 'mS/cm' to 'µS/cm' • Water Quality (Conductivity) added as a sampling point in Table 2. • Water Quality (Conductivity units): Note indicating the wrong unit below Table 3 is amended to indicate this change throughout all reports. • Blast Monitoring -Table 5, 'Date Obtained' column updated to 'Date of Max Value Obtained'.
December 2019	20/01/2020	08/2020	02/09/2020	• Water Quality (Conductivity units) changed for all EPL ID points in Tables 1, 2 and 3 from 'mS/cm' to 'µS/cm' • Water Quality (Conductivity) added as a sampling point in Table 2. • Water Quality (Conductivity units): Note indicating the wrong unit below Table 3 is amended to indicate this change throughout all reports. • Noise (criteria) has been updated in Table 4 to include weather conditions, LAmax, LAmin, LA10 and LA90 parameters. Notes were also written below Table 4 to exhibit acronyms and non-compliant weather conditions. • Noise (criteria): Table 4 title has been updated to be more indicative of the monitoring occurring, with a subtitle including noise limits for each period. • Noise (criteria): a short but comprehensive summary was written below Table 4 as an interpretation of the results displayed. • Blast Monitoring -Table 5, 'Date Obtained' column updated to 'Date of Max Value Obtained'.