

## WERRIS CREEK COAL EPL – MONTHLY SUMMARY

### Site Information

**EPL No.:** 12290

**EPA Website Link:** <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>

**Licensee:** Werris Creek Coal Pty Limited

**Premises:** Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

**EPL Monitoring Points:** See figure at end of document

**Sampling Period:** May 2019

**Obtained Date:** 19<sup>th</sup> June 2019

**Publication Date:** 4<sup>th</sup> July 2019

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m <sup>3</sup>	Every 6 days	5	26/5/2019	6/6/2019	4.9	8.7	7.3	14.0
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/5/2019	28/5/2019	0.5	0.5	0.5	0.5
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	26/5/2019	6/6/2019	15.6	19.7	21.2	22.7
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/5/2019	28/5/2019	0.8	0.8	0.8	0.8
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	31/5/2019	1/9/2019	3.8	11.2	10.9	28.1
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/5/2019	28/5/2019	0.4	0.4	0.4	0.4
10	Conductivity	µS/cm	Special Frequency 1	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0	-	-	-	-	-	-
14	Conductivity	µS/cm	Special Frequency 1	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0	-	-	-	-	-	-

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	Nitrogen (Total)	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0	-	-	-	-	-	-
23	Total Suspended Solids	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0	-	-	-	-	-	-
24	Reactive Phosphorus	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0	-	-	-	-	-	-

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EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0	-	-	-	-	-	-
26	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0	-	-	-	-	-	-
33*	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Aluminium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-

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EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Cobalt (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
34	Zinc (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Aluminium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Manganese	mg/L	Special Frequency 3	0	-	-	-	-	-	-

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	(dissolved)									
	Nickel (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
35	Aluminium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0	-	-	-	-	-	-

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	Vanadium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-

\*Dust gauge sample contaminated with glass. Broken funnel noted on field sheet.

**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 Value	100%ile Limit	Exceedance (Yes/No)
10	Total Suspended Solids	mg/L	Special Frequency 1	0	-	-	-	-	50*	No
	Oil and Grease	mg/L	Special Frequency 1	0	-	-	-	-	10	No
	pH	pH	Special Frequency 1	0	-	-	-	-	6.5-8.5	No
12	Total Suspended Solids	mg/L	Special Frequency 1	0	-	-	-	-	50*	No
	Oil and Grease	mg/L	Special Frequency 1	0	-	-	-	-	10	No
	pH	pH	Special Frequency 1	0	-	-	-	-	6.5-8.5	No
14	Total Suspended Solids	mg/L	Special Frequency 1	0	-	-	-	-	50*	No
	Oil and Grease	mg/L	Special Frequency 1	0	-	-	-	-	10	No
	pH	pH	Special Frequency 1	0	-	-	-	-	6.5-8.5	No
32	Total Suspended Solids	mg/L	Special Frequency 1	0	-	-	-	-	50*	No
	Oil and Grease	mg/L	Special Frequency 1	0	-	-	-	-	10	No
	pH	pH	Special Frequency 1	0	-	-	-	-	6.5-8.5	No
33*	Electrical Conductivity	mg/L	Special Frequency 4	1	3/5/2019	4/6/2019	1250	1250	2000	No
	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	pH	pH	Special Frequency 4	1	3/5/2019	4/6/2019	8.2	8.2	9	No
34	Electrical Conductivity	mg/L	Special Frequency 4	0	-	-	-	-	2000	No
	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0	-	-	-	-	9	No
35	Electrical Conductivity	mg/L	Special Frequency 4	0	-	-	-	-	2000	No

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EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)
	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0	-	-	-	-	9	No

\* EPL ID Point 33 is the point of discharge for discharge sampling

**Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	1	14/5/2019	22/5/2019	1150	1150	1150	1150
	Nitrate	mg/L	Every 3 Months	1	14/5/2019	22/5/2019	<0.01	<0.01	<0.01	<0.01
	Nitrogen (Total)	mg/L	Every 3 Months	1	14/5/2019	22/5/2019	0.4	0.4	0.4	0.4
	Oil and Grease	mg/L	Every 3 Months	1	14/5/2019	22/5/2019	3	3	3	3
	pH	pH	Every 3 Months	1	14/5/2019	22/5/2019	8.01	8.01	8.01	8.01
	Phosphorus (Total)	mg/L	Every 3 Months	1	14/5/2019	22/5/2019	0.4	0.4	0.4	0.4
	Reactive Phosphorus	mg/L	Every 3 Months	1	14/5/2019	22/5/2019	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	1	14/5/2019	22/5/2019	6	6	6	6
27	Conductivity	µS/cm	Every 3 Months	1	14/5/2019	22/5/2019	1080	1080	1080	1080
	Nitrate	mg/L	Every 3 Months	1	14/5/2019	22/5/2019	<0.01	<0.01	<0.01	<0.01
	Nitrogen (Total)	mg/L	Every 3 Months	1	14/5/2019	22/5/2019	<0.1	<0.1	<0.1	<0.1
	Oil and Grease	mg/L	Every 3 Months	1	14/5/2019	22/5/2019	1	1	1	1
	pH	pH	Every 3 Months	1	14/5/2019	22/5/2019	8.0	8.0	8.0	8.0
	Phosphorus (Total)	mg/L	Every 3 Months	1	14/5/2019	22/5/2019	0.1	0.1	0.1	0.1
	Reactive Phosphorus	mg/L	Every 3 Months	1	14/5/2019	22/5/2019	<0.01	<0.01	<0.01	<0.01
	Total Suspended	mg/L	Every 3 Months	1	14/5/2019	22/5/2019	8	8	8	8

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EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	<b>Solids</b>									
<b>17</b>	<b>Conductivity</b>	<b>µS/cm</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Nitrate</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Nitrogen (Total)</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>pH</b>	<b>pH</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Phosphorus (Total)</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Reactive Phosphorus</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Standing Water Level</b>	<b>Metres</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
<b>18</b>	<b>Conductivity</b>	<b>µS/cm</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Nitrate</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Nitrogen (Total)</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>pH</b>	<b>pH</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Phosphorus (Total)</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Reactive Phosphorus</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Standing Water Level</b>	<b>Metres</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
<b>19</b>	<b>Conductivity</b>	<b>µS/cm</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Nitrate</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Nitrogen (Total)</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>pH</b>	<b>pH</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Phosphorus (Total)</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Reactive Phosphorus</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Standing Water Level</b>	<b>Metres</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
<b>20</b>	<b>Conductivity</b>	<b>µS/cm</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Nitrate</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Nitrogen (Total)</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>pH</b>	<b>pH</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Phosphorus (Total)</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-
	<b>Reactive Phosphorus</b>	<b>mg/L</b>	<b>Every 6 Months</b>	0	-	-	-	-	-	-



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	Standing Water Level	Metres	Every 6 Months	0	-	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	-	-	-	-	-	-
	pH	pH	Every 6 Months	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	-	-	-	-	-	-
22	Conductivity	µS/cm	Every 6 Months	0	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	-	-	-	-	-	-
	pH	pH	Every 6 Months	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	-	-	-	-	-	-

TLTS - Too low to sample

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**
**Table 4 – Monitoring (Noise – Limits Apply)**

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
<b>R24</b>	21 and 22/5/2019	60 minutes	11:01 am	N/A	44	Day 37	NA, 0.7m/s, 273 degrees	Cars (44), birds (33), <b>WCC (&lt;20)</b>	No	19/6/2019
<b>R12</b>	21 and 22/5/2019	60 minutes	10:08 am	N/A	41	Day 38	NA, 0.9m/s, 167 degrees	Traffic (38), birds (37), <b>WCC (25)</b>	No	19/6/2019
<b>R96</b>	21 and 22/5/2019	60 minutes	12:11 pm	N/A	42	Day 38	NA, 1.6m/s, 279 degrees	Birds (41), wind (30), plane (23), <b>WCC (&lt;20)</b>	No	19/6/2019
<b>R98</b>	21 and 22/5/2019	60 minutes	1:08 pm	N/A	33	Day 36	NA, 0.9m/s, 229 degrees	Birds (32), wind (22), <b>WCC (&lt;20)</b>	No	19/6/2019
<b>R57</b>	21 and 22/5/2019	60 minutes	8:05 am	N/A	51	Day 35	NA, 0.1 m/s, 160 degrees	Traffic (49), insects (45), plane (35), <b>WCC (&lt;20)</b>	No	19/6/2019
<b>R24</b>	21 and 22/5/2019	60 minutes	9:28 pm	25	37	Night 37	+8.0 °/100m, 0.5m/s, 286 degrees	Traffic (35), horse (25), <b>WCC (23)</b>	No	19/6/2019
<b>R12</b>	21 and 22/5/2019	60 minutes	8:38 pm	<20	38	Night 38	+6.3 °/100m, 0.6m/s, 161 degrees	Traffic (38), <b>WCC (&lt;20)</b>	No	19/6/2019
<b>R96</b>	21 and 22/5/2019	60 minutes	7:01 pm	<20	24	Night 38	+6.3 °/100m, 1.0m/s, 22 degrees	Traffic (21), birds (20), <b>WCC (&lt;20)</b>	No	19/6/2019
<b>R98</b>	21 and 22/5/2019	60 minutes	8:08 pm	<20	21	Night 38	+5.6 °/100m, 1.4m/s, 298 degrees	Traffic (20), <b>WCC (&lt;20)</b>	No	19/6/2019
<b>R57</b>	21 and 22/5/2019	60 minutes	7:01 pm	30	40	Night 35	+8.1 °/100m, 0.9m/s, 146 degrees	Traffic (37), insects (33), <b>WCC (27)</b>	No	19/6/2019

**NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.**

**IA = Inaudible.**

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**
**Table 5 – 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
R11	Blast Noise	dB (Lin Peak)	Every Blast	14	0.12	0.23	120.0	No	1/6/2019
	Blast Vibration	mm/s	Every Blast	14	99.7	105.7	10.0	No	1/6/2019
R98	Blast Noise	dB (Lin Peak)	Every Blast	14	0.63	1.39	120.0	No	1/6/2019
	Blast Vibration	mm/s	Every Blast	14	100.5	106.4	10.0	No	1/6/2019
R62	Blast Noise	dB (Lin Peak)	Every Blast	14	0.34	0.88	120.0	No	1/6/2019
	Blast Vibration	mm/s	Every Blast	14	101.3	113.1	10.0	No	1/6/2019
R92	Blast Noise	dB (Lin Peak)	Every Blast	14	0.24	0.46	120.0	No	1/6/2019
	Blast Vibration	mm/s	Every Blast	14	99.3	111.9	10.0	No	1/6/2019

